Solicitation No. EQ447-180692/A

Project No. EQ447- 180692 Remediation/Disposal of Soil

Note to Bidders: When providing questions, please include a single specific point in each question. Do no combine multiple queries in the frame of one question.

Questions and Answers:

Question 1:

a) What concentrations of chlorinated solvents as mentioned and how treated- contact with an oxidant, such as sodium permanganate?

b) Specs talk of filtration, but that is standard language for sediment control.

c) No information on stratigraphy, hydrogeology, area of impact.

Response 1:

a) Concentrations of chlorinated solvents provided in specification, Appendix C, Groundwater Quality, Table C.2. Refer to drawing at commencement of the appendix to cross-reference concentrations with locations of the monitoring wells where samples were obtained. Treatment of dewatering water generated as per Section 31 23 19, which is performance based, not proscriptive. Bidder to meet the stipulated criteria, Ontario provincial Water Quality Objectives, as per Subsection 1.5.2 of Section 31 23 19.

b) Refer to addenda.

c) Appendix B, Borehole Logs, and Drawing C-03, both provide stratigraphy information. More stratigraphic information will be provided in this Addenda. See response to Question 6. The drawing at commencement of the Appendix C provides the locations of the monitoring wells and groundwater data that exceeds provincial water quality objectives. Additional hydrogeology drawings taken from historic reports are attached (Attachment 1). Drawings C-07, A to D, define area of soil impact.

Question 2: For the groundwater pumping is a permit to take water required since the pumping rate will exceed the 50,000 litres per day?

Response 2: Permits to Take Water as provided by the Government of Ontario are not required for this project. The site is subject to federal jurisdiction.

Question 3: For the groundwater treatment will the treatment process need to be completed under a Ministry of Environment and Climate Change (MOECC) mobile Environment Compliance Approval (ECA)?

Response 3: Mobile ECAs as provided by the Government of Ontario are not required for this project. The site is subject to federal jurisdiction.

Question 4: Would PWGSC accept treatment of the hazardous soils at the Site using a MOECC ECA and approved soil treatment system to reduce the hazardous soil concentrations to non-hazardous in accordance to regulations. This would provide potential cost savings for the project.

Response 4: If the Bidder wishes to propose treatment to change hazardous soil to non-hazardous soil, the Bidder can provide two cost sheets, one without treatment and one with treatment, accompanied by an explanation of the treatment process and its impact on schedule and the overall project.

Question 5: At the site meeting it was specified that there will be a large volume of clean overburden to be stockpiled and potentially be reused. However in the specifications or on the rate bid form there is no volume of clean overburden stockpiling or reuse provided. Can PWGSC please provide the expected volume of clean overburden to stockpile.

Response 5: Estimated volume of clean overburden for re-use as fill in noted in Section 02 50 00 (site remediation) and not in Section 31 00 01 (backfilling and grading). Note that Drawings C-07 A to C define the zones of clean overburden to be re-used as fill.

Question 6: At site meeting it was stated that stratigraphic logs for the monitoring wells to be abandoned will be provided. In order to properly price the abandonment work we need these stratigraphic logs. Can PWGSC please provide these and as many stratigraphic logs as possible?

Response 6: Borehole and monitoring wells logs have been included in this addenda for all the monitoring wells planned for abandonment. See Attachment 2. The following have been included:

Wells to be Decomissioned/Abandoned
Hangar 5/6: CFB Trenton

1	MW12	26		13	MW14	26	B
2	MW12	27		14	MW14	107	B
3	MW12	54	B	15	MW14	107	
4	MW12	54		16	MW14	108	B
5	MW12	61	A	17	MW14	108	
6	MW12	61	B	18	MW14	109	
7	MW12	61		19	MW14	118	
8	MW12	77		20	MW14	123	B
9	MW12	92	A	21	MW14	124	B
10	MW12	94		22	MW14	127	
11	MW12	95	A				
12	MW12	95	B				

Question 7: What are DND's proposed dewatering procedures over weekends? Is the contractor expected to maintain dewatering procedures over the weekend and ensure there is capacity to contain groundwater collected?

Response 7: The Contractor is to ensure the excavation remains dry (Section 31 23 19 subsection 1.1.1.2: "fully dewater the excavation zone") and that groundwater is managed to achieve this. PWGSC anticipates that weekend work will be required to ensure this objective is met during some of the excavation and backfilling tasks. The bidder can implement systems to minimize such weekend work by automation, monitoring and other measures, at their discretion. Note Section 31 23 19.1.6.1 notes a dewatering capacity of up to 100,000L/day where "day: refers to calendar days, not working week-days. Thus, system must remain operational on the weekends.

Question 8: Will DND allow access to other additional area (beyond limits outlined in Drawing C-02) to accommodate operational requirements including soil and groundwater storage capacity?

Response 8: For the purpose of this submission, please assume that the areas identified are the work areas to be used. Should the winning bidder present a strong argument for additional space, there may be some flexibility in adjusting the work area to a certain degree, but at this time, we cannot define the extent.

Question 9: Please provide borehole/monitoring well logs for all 22 of the monitoring wells to be decommissioned.

Response 9: See response to Question 6. Borehole/monitoring well logs have been provided for all monitoring wells planned for decommissioning.

Question 10: Since this is Federal Property, does the Water Treatment System require MOECC approval?

Response 10: See response to Question 3.

Question 11: With extracting 100,000 litres per day, is a Permit to Take required?

Response 11: See response to Question 2.

Question 12: 1.2 Measurement Procedures: .3 Supply and operation of vacuum truck to remove residual DNAPL/product from bedrock surface…Is this strictly to remove liquid form only or to remove residual soil material unable to be excavated due to contours of the bedrock surface?

Response 12: This activity is intended to remove residual soil from the bedrock surface to the degree practical as well as any groundwater and/or NAPL that is present on the surface of the bedrock, upwelling from the bed rock or present in the near surface cracks in the bedrock. This is not intended to be a long term activity but used judiciously before laying down the geotextile.

Question 13: 1.6 Water and Wastewater Storage Tanks: .1 .1 Allow the Departmental Representative to collect wastewater samples…prior to treatment. Is it required to obtain the analytical result first prior to treatment?

Response 13: Yes, water samples will be taken at a pre-treatment point, mid-treatment point and post treatment point on a daily basis as per Section 31 23 19.3.3.2.3, Water Treatment. Samples at the pre-treatment point and post treatment point should be taken from the tank contents directly (pretreatment holding tank and post-treatment holding tanks) and the Bidder should ensure the tanks are accessible to sampling in a safe manner that meets the provincial and federal occupational health and safety requirements and would not require working from heights measures (i.e. training) by providing stairs and railings. The bidder will facilitate that the mid-point can be sampled (i.e. such as providing a sampling valve).

Question 14: 2.1 Products: .2 Dewatering Well Points: Yes, the dewatering well points must be installed as per Reg 903 and a licenced well technician but is the installation required to be supervised by a qualified environmental practitioner? Are Borehole logs required to be submitted to the Departmental Representative as part of documentation? Or are both of the both enquiries going to be completed by the on-site Departmental Representative?

Response 14: The Departmental Representative will be present during the implementation of the work including the installation of dewatering well points. The Bidder will provide field personnel with knowledge and experience with respect to the installations of dewater well points as well as a licenced well technician in accordance with Ontario Regulation 903. With respect to borehole logs, please see the response to Question 6. The bidder is responsible for the installation of the dewatering well points in accordance with Ontario Regulation 903.

Question 15: 3.2 Dewatering: .1 Excavation Dewatering: The specs state that dewatering must maintain groundwater levels minimum 1 meter below excavation grade so this means 5 meters below grade. The schematic within Drawing C-06 illustrates that the well terminates at 5 meters below grade. Whatever pumping device the contractor decides will be sitting right on bottom and with normal well installations, silt generally build up on the bottom. Should these well points be taken to a greater depth of possibly 6 meters. Since this is a tender with basis of award on lowest bid price, all contractors should be bidding on the same specs.

Response 15: Refer to addenda for Section 31 23 19.3.2.1.1

Question 16: Water Well Abandonment, Section 33 29 00: Is it possible to get a copy of the Borehole logs for all Monitoring Wells that require abandonment?

Response 16: See response to Question 6.

Question 17: Backfilling and Grading, Section 31 00 01: 3.4 Field Quality Control: .1 Testing of material and compaction of backfill…by Departmental Representative. Is the contractor responsible for retaining the Geotechnical Engineer to perform the compaction testing and reporting?

Response 17: Refer to addenda.

Question 18: Would PWGSC consider changing the completion date of the project to be 60 days after dewatering has been started or achieved?? This request is due to the limited hydrogeology data provided?

Response 18: We would like to conduct the work before winter conditions prevail. Note that additional hydrogeological information has been provided (see the revision of Attachment 1).

Question 19: Would PWGSC provide more hydrogeologic data that would assist the contractor in designing the dewatering system and treatment requirements. Additional data that is needed includes hydraulic conductivities, transmissivities, groundwater flow velocities, etc?

Response 19: Excerpts of a previous report related to hydrogeology have been provide in Attachment 1 (revised).

Question 20: Would PWGSC provide some additional stratigraphic and instrumentation logs for monitoring wells in the vicinity of the excavation area?

Response 20: See response to Question 6.

Question 21: In the specifications it states a pumping rate of 100 litres per minute? Can this be verified.

Response 21: This value was derived from previous work and stipulated during the specification preparation. Contingency was added to address uncertainty.

Question 22: Due to the size and complexity of the project, and only having a week after the site visit, will PWGSC provide an extension to the closing date of August 17, 2017

Response 22: One week extension has been provided.

Question 23: For the groundwater pumping is a permit to take water required since the pumping rate will exceed the 50,000 litres per day?

Response 23: See response to Question 2.

Question 24: For the groundwater treatment will the treatment process need to be completed under a Ministry of Environment and Climate Change (MOECC) mobile Environment Compliance Approval (ECA)?

Response 24: See response to Question 3.

Question 25: Would PWGSC accept treatment of the hazardous soils at the Site using a MOECC ECA and approved soil treatment system to reduce the hazardous soil concentrations to non-hazardous in accordance to regulations. This would provide potential cost savings for the project.

Response 25: See response to Question 4.

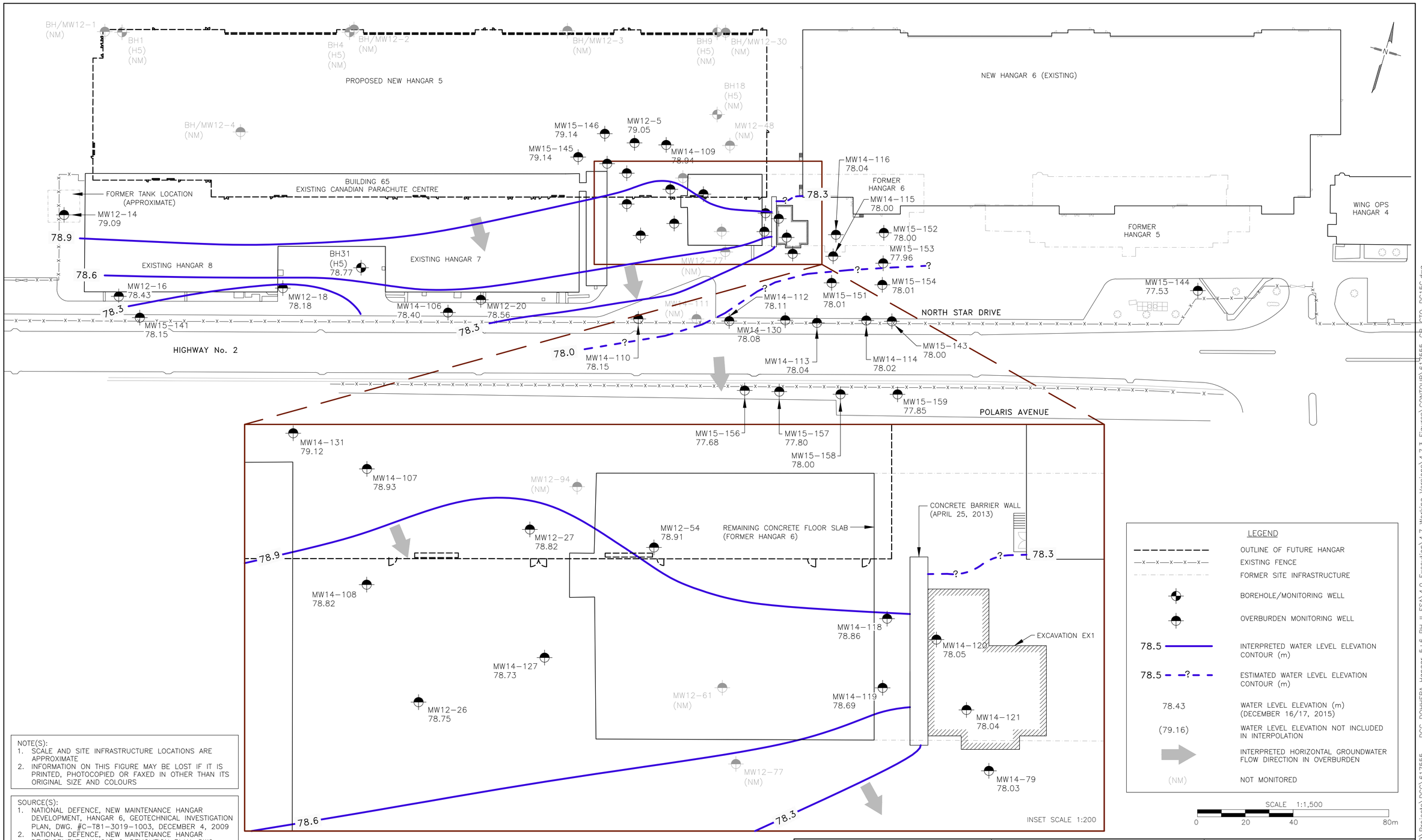
Question 26: At the site meeting it was specified that there will be a large volume of clean overburden to be stockpiled and potentially be reused. However in the specifications or on the rate bid form there is no volume of clean overburden stockpiling or reuse provided. Can PWGSC please provide the expected volume of clean overburden to stockpile.

Response 26: See response to Question 5.

Question 27: Would it be possible to have access to hydrogeologic reports (or any information) completed for areas AEC #3 and AEC #4.

Response 27: See response to Question 19.

Attachment 1 (revised): Additional Hydrogeological Information



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2. NATIONAL DEFENCE, NEW MAINTENANCE HANGAR DEVELOPMENT, HANGAR 6, DEMOLITION PLAN, DWG. #C-T81-3019-6002, DECEMBER 4, 2009
3. NATIONAL DEFENCE, NEW MAINTENANCE HANGAR DEVELOPMENT, HANGAR 5, GEOTECHNICAL INVESTIGATION PLAN, DWG. #C-T81-3018-1003, FEBRUARY 25, 2011
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LEGEND

- OUTLINE OF FUTURE HANGAR
- EXISTING FENCE
- FORMER SITE INFRASTRUCTURE
- BOREHOLE/MONITORING WELL
- OVERBURDEN MONITORING WELL
- 78.5 — INTERPRETED WATER LEVEL ELEVATION CONTOUR (m)
- 78.5 - -?- - ESTIMATED WATER LEVEL ELEVATION CONTOUR (m)
- 78.43 — WATER LEVEL ELEVATION (m) (DECEMBER 16/17, 2015)
- (79.16) — WATER LEVEL ELEVATION NOT INCLUDED IN INTERPOLATION
- INTERPRETED HORIZONTAL GROUNDWATER FLOW DIRECTION IN OVERBURDEN
- (NM) — NOT MONITORED

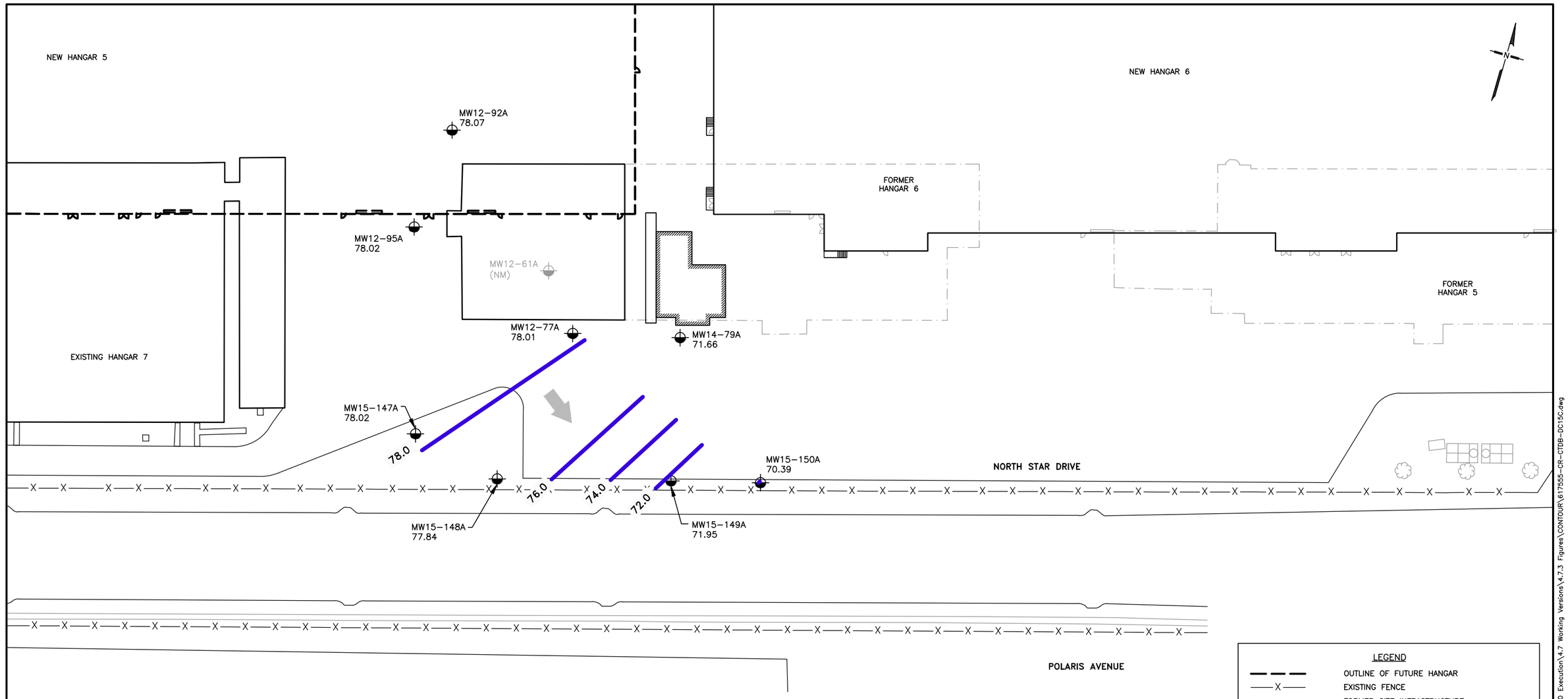
SCALE 1:1,500
0 20 40 80m

SNC·LAVALIN

Client/Location: DCC NEW HANGAR 5 & 6 – 8 WING CFB TRENTON TRENTON, ONTARIO		Title: INTERPRETED HORIZONTAL GROUNDWATER FLOW DIRECTION IN OVERBURDEN (DECEMBER 16/17, 2015)	
Project No: 617555	Filename: 617555-CR-CTO-DC15C	Date: AUGUST 2016	Dwg No: FIGURE 4A
Drawn: EM	Verified: EK	Project Manager: DT	

PAGE FORMAT: 11x17

FILENAME: \\SLI1779\Projects\DCC\617555 – DCC DQHHERA Hangar 5+6 PH II ESA\4.0 Execution\4.7 Working Versions\4.7.3 Figures\CONTOUR\617555-CR-CTO-DC15C.dwg



LEGEND

- OUTLINE OF FUTURE HANGAR
- EXISTING FENCE
- FORMER SITE INFRASTRUCTURE
- BEDROCK MONITORING WELL
- 78.5 — INTERPRETED WATER LEVEL ELEVATION CONTOUR (m)
- 78.43 — WATER LEVEL ELEVATION (m) (DECEMBER 16/17, 2015)
- (79.16) — WATER LEVEL ELEVATION NOT INCLUDED IN INTERPOLATION
- INTERPRETED HORIZONTAL GROUNDWATER FLOW DIRECTION IN DEEP BEDROCK
- (NM) — NOT MONITORED

SCALE 1:750

0 10 20 40m

NOTE(S):
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3. NATIONAL DEFENCE, NEW MAINTENANCE HANGAR DEVELOPMENT, HANGAR 5, GEOTECHNICAL INVESTIGATION PLAN, DWG. #C–T81–3018–1003, FEBRUARY 25, 2011
4. NATIONAL DEFENCE, NEW MAINTENANCE HANGAR DEVELOPMENT, HANGAR 5, DEMOLITION & REMOVALS PLAN, DWG. #C–T81–3018–6002, FEBRUARY 25, 2011

SNC·LAVALIN

Client/Location: DCC NEW HANGAR 5 & 6 – 8 WING CFB TRENTON TRENTON, ONTARIO		Title: INTERPRETED HORIZONTAL GROUNDWATER FLOW DIRECTION IN DEEP BEDROCK (DECEMBER 16/17, 2015)	
Project No: 617555	Filename: 617555–CR–CTDB–DC15C	Date: AUGUST 2016	Dwg No: FIGURE 4C
Drawn: EM	Verified: EK	Project Manager: DT	

PAGE FORMAT: 11x17

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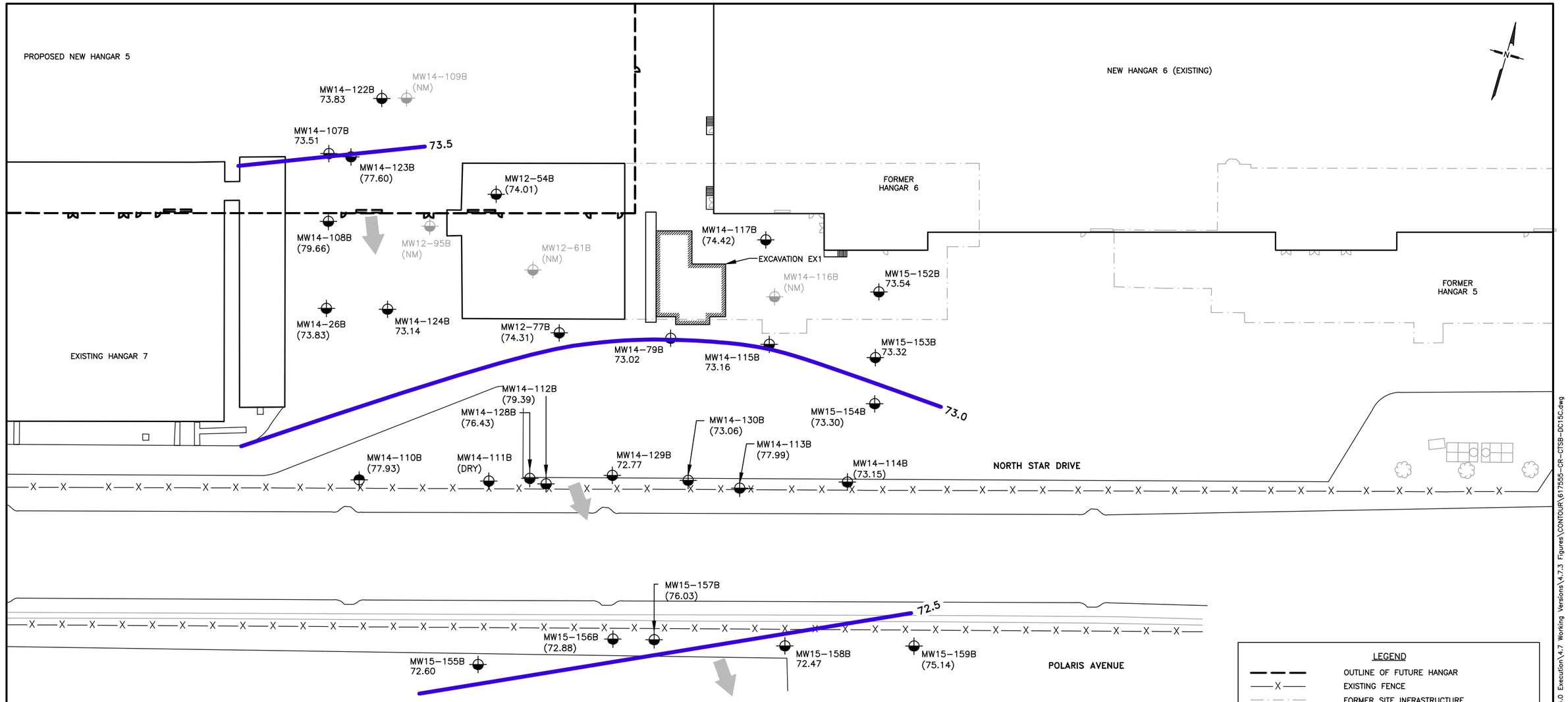

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4. NATIONAL DEFENCE, NEW MAINTENANCE HANGAR DEVELOPMENT, HANGAR 5, DEMOLITION & REMOVALS PLAN, DWG. #C-T81-3018-6002, FEBRUARY 25, 2011

LEGEND

- OUTLINE OF FUTURE HANGAR
- X EXISTING FENCE
- FORMER SITE INFRASTRUCTURE
- BEDROCK MONITORING WELL
- 78.5 INTERPRETED WATER LEVEL ELEVATION CONTOUR (m)
- 78.43 WATER LEVEL ELEVATION (m) (DECEMBER 16/17, 2015)
- (79.16) WATER LEVEL ELEVATION NOT INCLUDED IN INTERPOLATION
- INTERPRETED HORIZONTAL GROUNDWATER FLOW DIRECTION IN DEEP BEDROCK
- (NM) NOT MONITORED

SCALE 1:750
0 10 20 40m

SNC·LAVALIN

Client/Location: DCC NEW HANGAR 5 & 6 – 8 WING CFB TRENTON TRENTON, ONTARIO		Title: INTERPRETED HORIZONTAL GROUNDWATER FLOW DIRECTION IN SHALLOW BEDROCK (DECEMBER 16/17, 2015)	
Project No: 617555	Filename: 617555-CR-CTSB-DC15C	Date: AUGUST 2016	Dwg No: FIGURE 4B
Drawn: EM	Verified: EK	Project Manager: DT	

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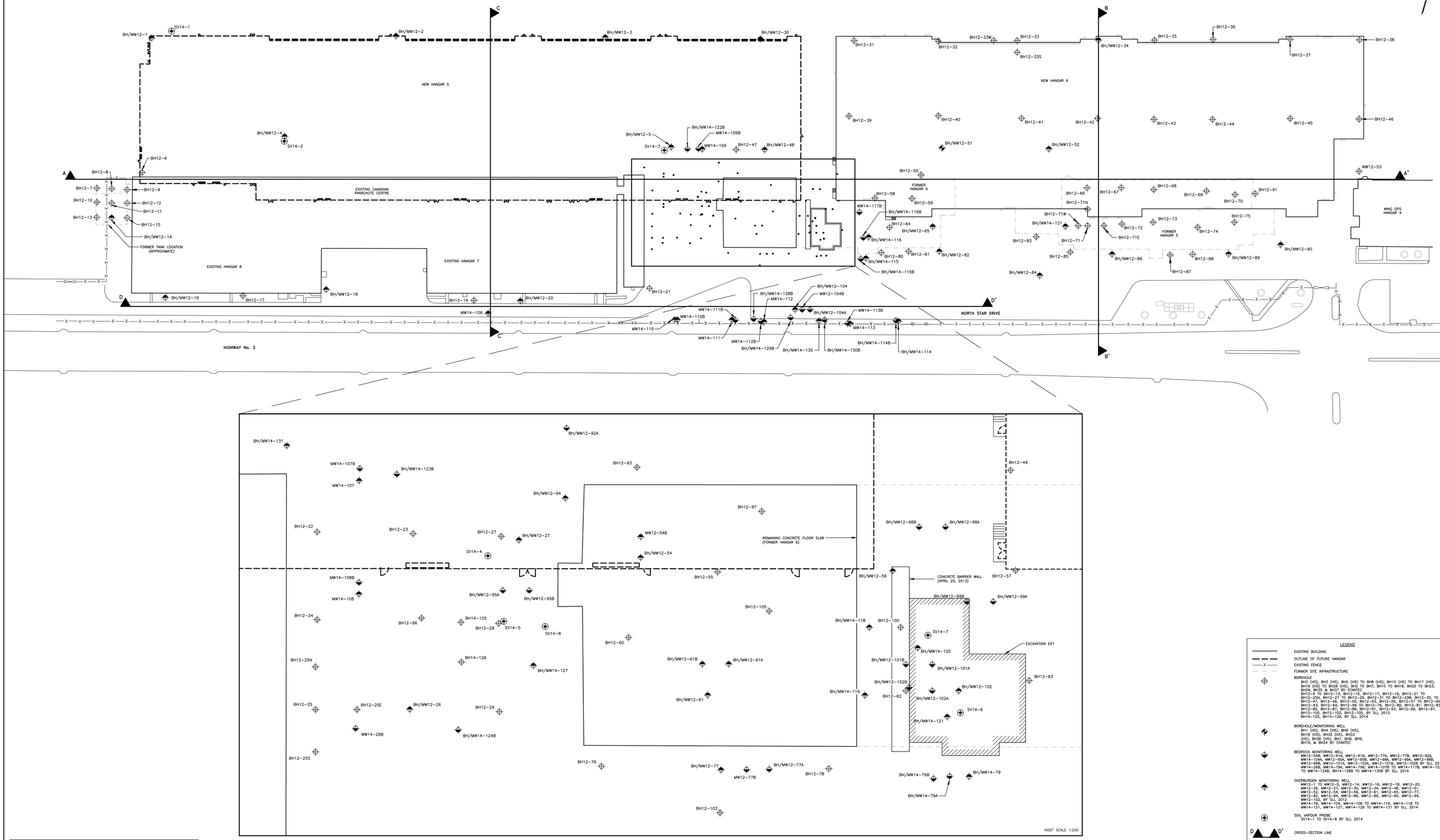

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4. NATIONAL DEFENCE, NEW MAINTENANCE HANGAR DEVELOPMENT, HANGAR 5, DEMOLITION & REMOVALS PLAN, DWG. #C-TB1-3018-6002, FEBRUARY 25, 2011

LEGEND

- EXISTING BUILDING
- OUTLINE OF FUTURE HANGAR
- EXISTING FENCE
- FORMER SITE INFRASTRUCTURE
- BOREHOLE: BH2 (HS), BH3 (HS), BH5 (HS) TO BH8 (HS), BH10 (HS) TO BH17 (HS), BH19 (HS) TO BH28 (HS), BH2 TO BH7, BH10 TO BH18, BH20 TO BH23, BH34, BH35 & BH37 BY STANTEC; BH12-6 TO BH12-13, BH12-15, BH12-17, BH12-19, BH12-21 TO BH12-25N, BH12-27 TO BH12-29, BH12-31 TO BH12-33W, BH12-35, TO BH12-47, BH12-49, BH12-50, BH12-53, BH12-55, BH12-57 TO BH12-60, BH12-62 TO BH12-63, BH12-66 TO BH12-76, BH12-78 TO BH12-80, BH12-81, BH12-83, BH12-85, BH12-87, BH12-88, BH12-91, BH12-93, BH12-96, BH12-97, BH12-100, BH12-103, BH12-105 BY SLI, 2012; BH14-125, BH14-126, BY SLI, 2014
- BOREHOLE/MONITORING WELL: BH1 (HS), BH4 (HS), BH9 (HS), BH18 (HS), BH32 (HS), BH33 (HS), BH36 (HS), BH1, BH8, BH9, BH19, & BH24 BY STANTEC
- BEDROCK MONITORING WELL: MW12-54B, MW12-61B, MW12-77A, MW12-77B, MW12-92A, MW14-104A, MW12-95A, MW12-95B, MW12-98A, MW12-99A, MW12-99B, MW12-99B, MW12-101A, MW12-102A, MW12-101B, MW12-102B BY SLI, 2012; MW14-26B, MW14-79A, MW14-79B, MW14-107B TO MW14-117B, MW14-122B TO MW14-124B, BH14-128B TO MW14-130B BY SLI, 2014
- OVERBURDEN MONITORING WELL: MW12-1 TO MW12-5, MW12-14, MW12-16, MW12-18, MW12-20, MW12-26, MW12-27, MW12-30, MW12-34, MW12-48, MW12-51, MW12-52, MW12-54, MW12-56, MW12-61, MW12-65, MW12-77, MW12-78, MW12-85, MW12-86, MW12-89, MW12-90, MW12-94, MW12-103, BY SLI, 2012; MW14-79, MW14-104, MW14-106 TO MW14-116, MW14-118 TO MW14-121, MW14-127, MW14-129 TO MW14-131 BY SLI, 2014
- SOIL VAPOUR PROBE: SV14-1 TO SV14-8 BY SLI, 2014
- D D' CROSS-SECTION LINE

SCALE 1:750
0 10 20 40m

SNC·LAVALIN

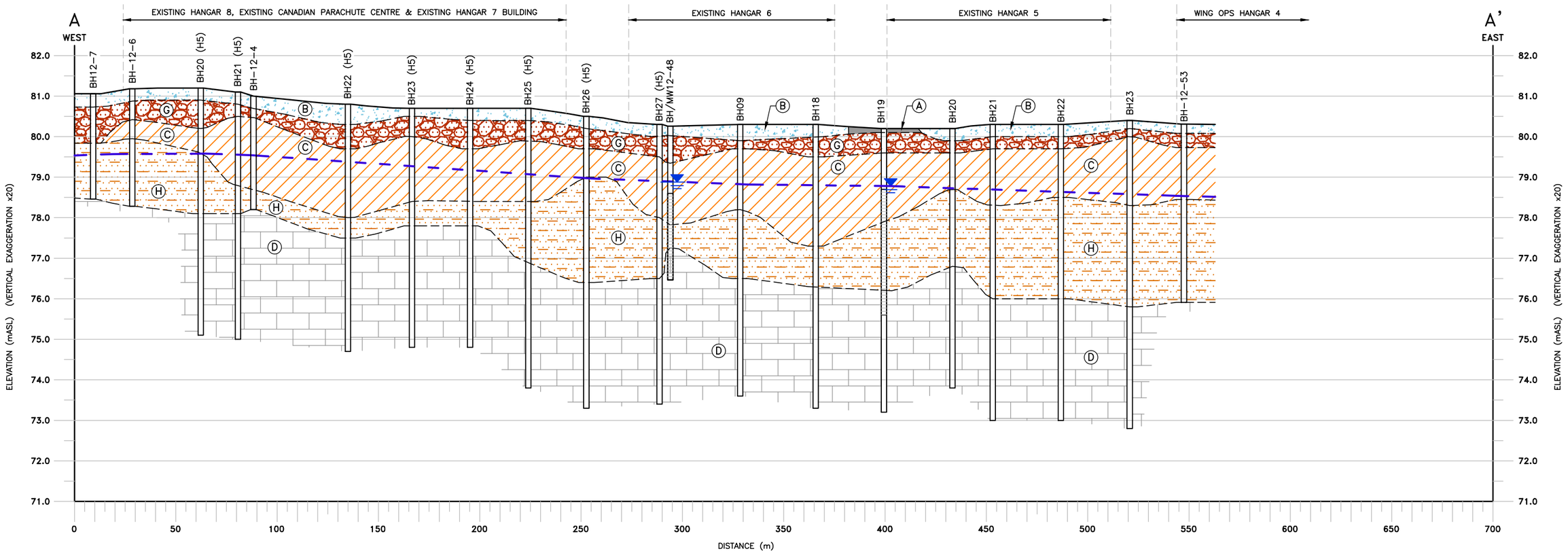
Client/Location: DCC — NEW HANGAR 5 & 6 – 8 WING CFB TRENTON — TRENTON, ONTARIO

Title: GEOLOGICAL CROSS SECTION LOCATIONS

Project No: 617555 | Filename: 617555-LN-XS-1A.DWG | Date: JANUARY 2015 | Dwg No: FIGURE A-1

Drawn: EM | Verified: EH/SC | Project Manager: SW

PAGE FORMAT: 22x34



LEGEND

- PROPERTY LINE
- GROUNDWATER LINE
- WATER LEVEL MEASURED IN DECEMBER 2010
- (A) ASPHALT
- (B) CONCRETE
- (C) CLAY
- (D) LIMESTONE
- (E) SAND
- (F) SAND FILL
- (G) SAND & GRAVEL FILL
- (H) SILTY SAND
- (I) TOPSOIL
- BOREHOLE
- MONITORING WELL WITH SCREEN INTERVAL

SCALE 1:2000 (HORIZONTAL)

0 40 80m

NOTE(S):
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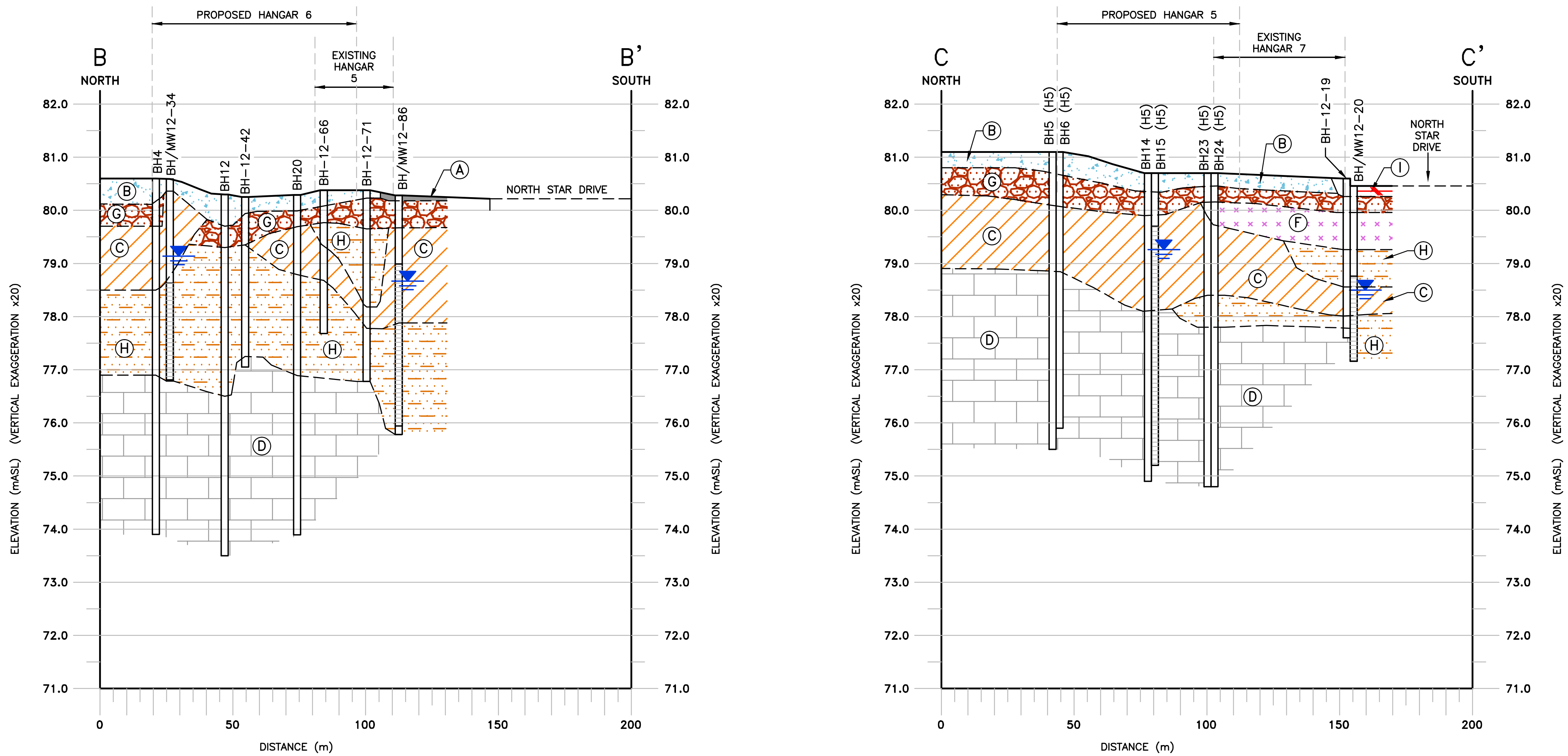
3. BOREHOLE/MONITORING WELL DIAMETERS ARE EXAGGERATED FOR REPRESENTATION
4. 'm' : METRES

SNC·LAVALIN

Client/Location: DCC NEW HANGAR 5 & 6 – 8 WING CFB TRENTON TRENTON, ONTARIO		Title: GEOLOGICAL CROSS SECTION A–A'	
Project No: 617555	Filename: 617555–XS–AA–1.DWG	Date: FEBRUARY 2015	Dwg No: FIGURE A–2
Drawn: EM	Verified: SC	Project Manager: SW	

PAGE FORMAT: 11x17



LEGEND

- PROPERTY LINE
- GROUNDWATER LINE
- WATER LEVEL MEASURED IN APRIL 30, 2012
- (A) ASPHALT
- (B) CONCRETE
- (C) CLAY
- (D) LIMESTONE
- (E) SAND
- (F) SAND FILL
- (G) SAND & GRAVEL
- (H) SILTY SAND
- (I) TOPSOIL
- BOREHOLE
- MONITORING WELL WITH SCREEN INTERVAL

SCALE 1:2000 (HORIZONTAL)
0 40 80m

NOTE(S):
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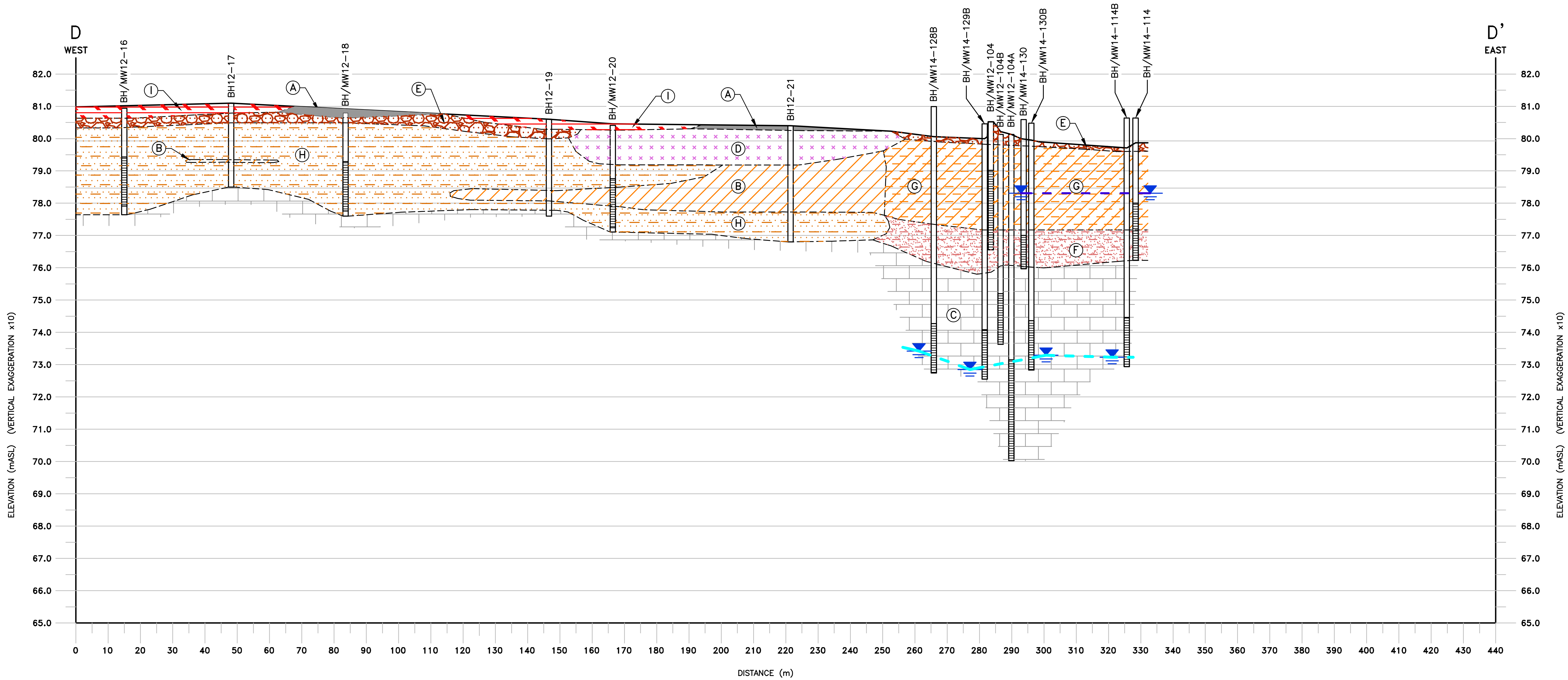
3. BOREHOLE/MONITORING WELL DIAMETERS ARE EXAGGERATED FOR REPRESENTATION
4. 'm' : METRES

SNC·LAVALIN

Client/Location: DCC NEW HANGAR 5 & 6 – 8 WING CFB TRENTON TRENTON, ONTARIO		Title: GEOLOGICAL CROSS-SECTIONS B-B' & C-C'	
Project No: 617555	Filename: 617555-XS-BBCC-1.DWG	Date: FEBRUARY 2015	Dwg No: FIGURE A-3
Drawn: EM	Verified: SC	Project Manager: SW	

PAGE FORMAT: 11x17



LEGEND

GROUNDWATER LINE IN OVERBURDEN	(C) LIMESTONE	(G) SILTY CLAY	MONITORING WELL WITH SCREEN INTERVAL
GROUNDWATER LINE IN BEDROCK	(D) SAND FILL	(H) SILTY SAND/ SILTY SAND FILL	ANALYSED SAMPLE – ALL ANALYSED PARAMETERS SATISFY THE SELECTED STANDARDS
WATER LEVEL MEASURED IN NOVEMBER 27, 2014	(E) SAND & GRAVEL FILL	(I) TOPSOIL	ANALYSED SAMPLE – AT LEAST ONE ANALYSED PARAMETER EXCEEDS THE SELECTED STANDARD
(A) ASPHALT	(F) SILTY TILL	BOREHOLE	
(B) CLAY			

SCALE 1:1250 (HORIZONTAL)
0 25 50m

NOTE(S):
1. SCALE AND SITE INFRASTRUCTURE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PHOTOCOPIED, FAXED OR PRINTED FROM PDF
3. BOREHOLE/MONITORING WELL DIAMETERS ARE EXAGGERATED FOR REPRESENTATION

SNC·LAVALIN

Client/Location: DCC NEW HANGAR 5 & 6 – 8 WING CFB TRENTON TRENTON, ONTARIO		Title: GEOLOGICAL CROSS SECTION D–D'	
Project No: 617555	Filename: 617555-XS-DD-1A.DWG	Date: FEBRUARY 2015	Dwg No: FIGURE A-4
Drawn: EM	Verified: EH	Project Manager: SW	

PAGE FORMAT: 11x17

This document comprises excerpts from a larger report shown in the Title Page and Table of Contents.

The excerpts comprise information related to the physical hydrogeological characteristics of the site.

FINAL REPORT

DEFENCE CONSTRUCTION CANADA

NEW MAINTENANCE HANGAR DEVELOPMENT
8 WING - CFB TRENTON, ON

HANGAR 5 AND 6
DETAILED SITE INVESTIGATION

DCC REF.: **PROJECT NO.** **TR1ENV12**
CONTRACT NO. **50336**

SLE REF.: **12-308**

Submitted:
March 31, 2013

Prepared by:
SNC-Lavalin Environment
Ottawa, Ontario

SNC·LAVALIN
Environment

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sand pack, whereas deep bedrock wells were instrumented with 3.0 m long well screens and surrounding silica sand pack. The remaining annulus of each well was sealed with bentonite cement grout and finished at ground surface with aluminum flush-mounted protective casings set in concrete or asphalt, as appropriate, to match the existing surface.

2.4 Monitoring Well Development

2.4.1 Detailed Site Investigation

Monitoring wells were further instrumented with inertial hand pumps constructed of low density polyethylene (HDPE) tubing and Delrin® foot valves. Although well development prior to groundwater purging and sampling is the preferred practise (in order to remove fine-grained material from the screen/sand filter pack, improve the hydraulic characteristics of the sand filter pack and improve the hydraulic connection between the well and the groundwater formation) the benefits of well development required balancing between time and cost constraints for this phase of the project. Based on these constraints, formal well development was only performed on the three (3) monitoring wells selected for hydraulic conductivity testing (MW12-34, MW12-52 and MW12-84).

Notwithstanding the above, nominal volumes of water were purged from each well following installation and prior to purging wells for groundwater sample collection, to accomplish at least some form of development.

Purged groundwater was contained and temporarily stored on site in 1,000-litre (L) portable polyethylene storage tanks (totes).

2.4.2 Supplemental Investigation

Following the installation of the monitoring wells, the monitoring wells were instrumented with inertial hand pumps constructed of HDPE tubing and Delrin® foot valves. Effort was made to develop the monitoring wells by purging a minimum of three (3) standing volumes of water from each well or to purge the well dry three (3) times. However, due to low water levels and poor groundwater recovery, formal well development could only performed on twelve (12) monitoring wells (MW12-27, -56, -61, -94, -104, -104A/B, -79A/B, -77A/B and -92A).

Monitoring wells MW12-102 and MW12-95A produced limited water; as such, they were developed by purging dry one to two times only. Monitoring well MW12-95B did not produce any groundwater, but instead free-phase product, consisting of Dense Non-Aqueous Phase Liquid (DNAPL), was detected in this monitoring well (discussed further in Section 2.6).

All eleven (11) bedrock monitoring wells installed within the former Paint Shop/Tire Bay area of existing Hangar 6 were dry following installation, specifically monitoring wells (MW12-54B, -61A/B, -98A/B, -99A/B, -101A/B, and -102A/B). Surging of these monitoring wells was completed to remove fine sediment and/or rock flour produced during drilling from rock fractures and thereby promote well production.

A surge block was constructed with a thick rubber band, packed between durable plastic disks, metal washers, and metal nuts and bolts, and attached to a long metal rod. The surge block rubber band matched the interior diameter of the well being surged. Clean, potable water was added to each well being surged to aid in the removal sediment. The surge block was lowered slowly into the well casing and raised quickly to create suction during the upstroke of the surge block to encourage the removal of fine particles from the bedrock fractures. Ten (10) strokes with the surge block were completed at each well, after which any remaining water was manually purged to remove sediment. Clean, potable water was added for a second time to each well, ten strokes with the surge block completed, and the remaining water again purged from the monitoring well. During surging, the volumes of water added to and removed from each monitoring well were tracked to approximate that an equal amount of water was removed from the well as had been added. After surging was completed, the rates of water level recovery were monitored for the eleven (11) bedrock monitoring wells which were surged.

Purged groundwater was contained and temporarily stored in a 38,000 L storage tank which was mobilized to the site on July 25, 2012.

2.5 Surveying and Groundwater Level Measurement

2.5.1 Detailed Site Investigation

Borehole and monitoring well locations for all wells installed in April 2012 were surveyed vertically and horizontally on April 27, 2012 by Watson Land Surveyors, a registered Ontario Land Surveyor from Belleville, Ontario. Surveying of the existing monitoring wells installed by Stantec during their geotechnical investigations for the New Hangar 5 [BH1(H5), BH15(H5), BH31(H5), BH33(H5) and BH36(H5)] and the New Hangar 6 [BH1, BH8, BH17, BH19 and BH24] projects also was completed at this time.

Monitoring well top of riser elevations and ground surface elevations were surveyed to facilitate the calculation of groundwater elevations based on groundwater level measurements taken from the top of well risers. Elevations were provided relative to mean sea level, based on geodetic benchmarks known to Watson Land Surveyors. Relevant site features identified on

the plans provided by SLE were also surveyed to tie in the new borehole and monitoring well locations to the existing plans.

Monitoring well locations are shown on Figures 3 and 4.

Groundwater level measurements for the twenty four (24) wells installed in April 2012, plus the ten (10) existing wells, were made on April 30, 2012. Groundwater level measurements were made from the top of PVC risers at each monitoring well using an electronic water level meter. The probe and initial length of tape of the electronic water level meter were cleaned between monitoring locations with a Liquinox® solution followed by a distilled water rinse, to prevent cross-contamination between monitoring wells.

2.5.2 Supplemental Investigation

Borehole and monitoring well locations for the wells installed in July and August 2012 were surveyed vertically and horizontally during the period of July 30 to September 21, 2012 by SLE personnel; surveying could not be coordinated with Watson Land Surveyors due to site access restrictions.

Monitoring well top of riser elevations and ground surface elevations were surveyed so that groundwater elevations could be calculated from groundwater level measurements taken from the top of well risers. Elevations were surveyed relative to wells installed in April 2012 (surveyed by Watson Land Surveyors relative to mean sea level).

Monitoring well locations are shown on Figures 3 and 4.

Due to site access issues and a large number of dry bedrock monitoring wells, a comprehensive round of water levels of all overburden and bedrock monitoring wells in the vicinity of the former Paint Shop could not be measured at one time. Partial sets of water levels were measured on August 13 and September 17, 2012. Groundwater level measurements were made from the top of PVC risers at each monitoring well using an electronic water level meter. The probe and initial length of tape of the electronic water level meter were cleaned between monitoring locations with a Liquinox® solution followed by a distilled water rinse, to prevent cross-contamination between monitoring wells.

2.6 Product Purging

During groundwater monitoring and sampling on July 31, 2012, DNAPL product was discovered in shallow bedrock monitoring well MW12-95B. Product was periodically recovered from

MW12-95B by SLE from July 31 to September 21, 2012; DCC personnel subsequently continued periodic product recovery up until at least March 15, 2013. Product was recovered using a peristaltic pump with dedicated ¼-inch LDPE tubing. The volume of product recovered was recorded at each event. Recovered product was contained and temporarily stored on site prior to off-site disposal.

2.7 Groundwater Sampling

2.7.1 Detailed Site Investigation

Groundwater sampling of the twenty four (24) monitoring wells installed in April 2012, plus the ten (10) existing wells, was conducted during the period of April 17 to May 1, 2012. The DSI work plan had specified groundwater sampling of nine (9) existing monitoring wells, however one (1) additional monitoring well, installed by Stantec and not clearly identified in the Hangar 6 Geotechnical Investigation report, was identified on site. Following confirmation of groundwater monitoring wells installed by Stantec, ten (10) existing monitoring wells were included in SLE's groundwater monitoring and sampling activities.

Prior to sampling, wells were purged of three (3) well volumes of groundwater or were purged dry three (3) times, using the dedicated inertial hand pumps installed in each well.

The pH, electrical conductivity and temperature in the purge water were measured using a pH/conductivity/temperature meter calibrated in the field using appropriate calibration solutions.

Samples for VOC analyses were collected prior to other parameters using ¼ inch LDPE tubing inserted into the end of the 5/8 inch LDPE tubing to reduce volatilization of the sample. Samples collected for metals analyses, with the exception of cyanide analyses, were field filtered using dedicated in-line 0.45 µm filters.

Exceptions to the above sampling procedure included:

- The ten (10) existing wells installed were constructed with 19 mm diameter PVC riser, which precluded the use of standard inertial hand pumps; therefore, these wells were purged and sampled using a peristaltic pump with ¼-inch LDPE tubing;
- Monitoring wells MW12-1 and MW12-18 were dry and were therefore not sampled;
- Due to poor groundwater recovery in monitoring well MW12-14, sufficient sample could not be collected for metals, glycols or PCB analyses;

4. FINDINGS AND RESULTS

4.1 Site Geology

The ground surface in the study area slopes gently to the south and comprises almost entirely of non-porous surfaces including concrete aprons, asphalt road ways and parking/storage, and existing hangar buildings (with concrete floor slabs).

Actual stratigraphy recorded during the investigation is presented on the borehole logs in Appendix B.

In accordance with the previous geotechnical investigation performed by Stantec (Stantec, 2011), and based on review of the borehole logs, the primary soil strata encountered beneath the concrete and asphalt surfaces include:

- Sand and gravel fill, and sand fill, with an average thickness of approximately 0.6 m was encountered at depths ranging from from 0.3 m bgs to 2.8 m bgs;
- Silty clay (till) with an average thickness of approximately 1.0 m ranging in depths from 0.6 m bgs to 3.1 m bgs; and
- Silty sand (till) with an average thickness of approximately 1.2 m ranging in depths from 1.0 m bgs to 3.1 m bgs;.

Secondary soil strata, not consistently encountered at all boreholes, included sand fill and silty sand fill. Limestone bedrock was encountered at depths ranging from 2.1 to 4.9 m bgs.

Based on the borehole logs, three cross-sections were generated for the site. Cross-section locations are shown on Figure 5; the east to west cross-section is provided in Figure 6 and the two north to south cross-sections are provided on Figure 7.

The site geology encountered by SLE generally corresponds with the descriptions provided by Stantec in the geotechnical reports for the Hangar 5 and Hangar 6 projects.

4.2 Site Hydrogeology

Water level measurements are presented in Table 4.1.

The depth to water measured in overburden monitoring wells on April 30, 2012 ranged from 1.19 m to 3.11 m bgs, with an average of 1.83 m bgs. Water level elevations ranged from 79.76 to 77.32 mASL.

Overburden groundwater elevations and interpreted elevation contours for April 30, 2012 are presented in Figure 8. As shown in Figure 7, the interpreted groundwater flow direction in the overburden in the study area was generally to the south-southeast towards the Bay of Quinte.

Of the twenty (20) bedrock monitoring wells installed:

- eleven (11) were dry upon completion;
- one (1), monitoring well MW12-95B, contained DNAPL product with no evidence of groundwater; and
- one (1), monitoring well MW12-95A, contained only 0.9 m of water column.

Following surging and purging of the eleven (11) "dry" bedrock wells on July 31, 2013, water level measurements were re-measured on August 15, 2012. Water levels in these wells had not increased to levels comparable to levels in wells that appeared to recover adequately after purging.

Based on the limited data points for bedrock groundwater levels, groundwater elevation contours could not be generated for shallow and deep bedrock groundwater. However, based on a review of water levels measured on September 17, 2012 (Table 4.1), excluding bedrock wells that exhibited poor recovery, the following observations were made:

- shallow bedrock water level elevations ranged from 78.86 mASL at MW12-79B to 78.66 mASL at MW12-104B;
- deep bedrock water level elevations ranged from 78.83 mASL at MW1292A to 77.88 mASL at MW12-104A; and
- a north to south component of groundwater flow direction is observed in both shallow and deep bedrock groundwater.

4.2.1 Hydraulic Testing

Between April and August 2012, falling and rising head tests were performed at multiple monitoring wells to calculate the hydraulic conductivity of the overburden, shallow bedrock, and deep bedrock. Proposed pump testing of the shallow and deep bedrock could not be performed due to the poor recovery of groundwater in the monitoring wells installed within bedrock.

Six (6) overburden monitoring wells (MW12-27, -34, -52, -79, -84 and -104) were tested. The falling and rising head test data was recorded with dedicated dataloggers in each well. The recovery of the water level in each well was monitored over time and a graph of the relative

head as a function of time was plotted and interpreted using the Aquifer Test software, using one of two methods: Bouwer and Rice (1976), used if the water level was within the well screen; or Hvorslev (1951), used if the water level was above the well screen. The software results for the hydraulic conductivity of the overburden monitoring wells are provided in Appendix C.

The following table summarizes the hydraulic conductivity of the overburden for each tested monitoring well location.

Overburden Monitoring Wells – Estimated Hydraulic Conductivity:

MW ID	Test Date	Estimated Hydraulic Conductivity – K (m/s)	
MW12-27	10-Aug-2012	4.37×10^{-06}	
MW12-34	24-Apr-2012	Test 1: 1.41×10^{-06} Test 2: 1.28×10^{-06}	Geometric Mean: 1.34×10^{-06}
MW12-52	24-Apr-2012	4.42×10^{-07}	
MW12-79	10-Aug-2012	4.15×10^{-07}	
MW12-84	24-Apr-2012	8.53×10^{-07}	
MW12-104	10-Aug-2012	1.19×10^{-07}	
	Geometric Mean	6.92×10^{-07}	

The hydraulic conductivity of the overburden ranged from approximately 8.53×10^{-07} m/s at MW12-84 to 1.35×10^{-06} m/s at MW12-34. The geometric mean hydraulic conductivity in overburden was calculated at 6.92×10^{-07} m/s.

Nine (9) shallow bedrock monitoring wells (MW12-54B, -61B, -77B, -79B, -98B, -99B, -101B, -102B and -104B) and six (6) deep bedrock monitoring wells (MW12-61A, -79A, -98A, -99B, -101A and -102A) were tested. Similar to overburden monitoring wells, most rising and falling head test data was gathered using dedicated dataloggers in each well; in some cases, however, manual measurement was performed. Rising/falling head test data was plotted and interpreted using either the Bouwer and Rice (1976) or Hvorslev (1951) method, as appropriate; however AQTESOLV software was also used for some well test results. The software results for the hydraulic conductivity of the shallow and deep bedrock monitoring wells are provided in Appendix C.

The following table summarizes the hydraulic conductivity of the shallow bedrock material at each tested monitoring well.

Shallow Bedrock Monitoring Wells – Estimated Hydraulic Conductivity:

MW ID	Test Date	Estimated Hydraulic Conductivity - K (m/s)	
MW12-54B	14-Aug-2012	Test 1: 2.22×10^{-09} Test 2: 1.61×10^{-09}	Geometric Mean: 1.89×10^{-09}
MW12-61B	14-Aug-2012	Test 1: 6.22×10^{-10} Test 2: 1.45×10^{-09}	Geometric Mean: 9.50×10^{-10}
MW12-77B	10-Aug-2012	2.44×10^{-08}	
MW12-79B	10-Aug-2012	3.50×10^{-07}	
MW12-98B	14-Aug-2012	Test 1: 5.77×10^{-09} Test 2: 4.62×10^{-09}	Geometric Mean: 5.16×10^{-09}
MW12-99B	14-Aug-2012	2.99×10^{-10}	
MW12-101B	14-Aug-2012	Test 1: 7.13×10^{-09} Test 2: 1.93×10^{-08}	Geometric Mean: 1.17×10^{-08}
MW12-102B	14-Aug-2012	Test 1: 1.33×10^{-08} Test 2: 8.45×10^{-09}	Geometric Mean: 1.06×10^{-08}
MW12-104B	9-Aug-2012	2.84×10^{-06}	
	Geometric Mean	1.27×10^{-08}	

The hydraulic conductivity of the shallow bedrock ranged from approximately 2.99×10^{-10} m/s at MW12-99B to 2.84×10^{-06} m/s at MW12-104B. The geometric mean hydraulic conductivity in shallow bedrock was calculated at 1.27×10^{-08} m/s.

The following table summarizes the hydraulic conductivity of the deep bedrock material at each tested monitoring well.

Deep Bedrock Monitoring Wells – Estimated Hydraulic Conductivity:

MW ID	Test Date	Estimated Hydraulic Conductivity - K (m/s)
MW12-61A	14-Aug-2012	1.18×10^{-09}
MW12-79A	13-Aug-2012	8.61×10^{-07}
MW12-98A	14-Aug-2012	3.85×10^{-10}
MW12-99A	14-Aug-2012	4.30×10^{-09}
MW12-101A	14-Aug-2012	1.43×10^{-10}
MW12-102A	14-Aug-2012	2.95×10^{-09}
	Geometric Mean	2.99×10^{-09}

The hydraulic conductivity of the deep bedrock ranged from approximately 3.9×10^{-10} m/s at MW12-98A to 8.6×10^{-07} m/s at MW12-79A. The geometric mean hydraulic conductivity in deep bedrock was calculated at 2.99×10^{-09} m/s.

The estimated hydraulic conductivities of the overburden, shallow bedrock, and deep bedrock material range from low (10^{-06} to 10^{-07}) to practically impervious ($<10^{-07}$) (Budhu, 2011). On average, the results of the hydraulic conductivity field tests indicate that the overburden material is more permeable than the underlying bedrock, and the shallow bedrock is more permeable than the deep bedrock.

Assuming that the average porosity (n) of the overburden at the site is 30% and average hydraulic gradient (i) = 0.0075, the average groundwater flow velocity (V) can be estimated using the following equation:

Equation 1

$$V = Ki/n$$

Based on the above, the estimated overburden groundwater flow velocity in the study area in ranges from 0.1 to 3.4 m/year. Given a geometric mean overburden hydraulic conductivity of 6.92×10^{-7} m/x, the average overburden groundwater velocity is approximately 0.5 m/year.

The hydraulic gradient and porosity of the bedrock are unknown, therefore it is not possible to calculate groundwater flow velocity in the bedrock. However, based on the very low hydraulic conductivities and low yields, the velocity is likely low.

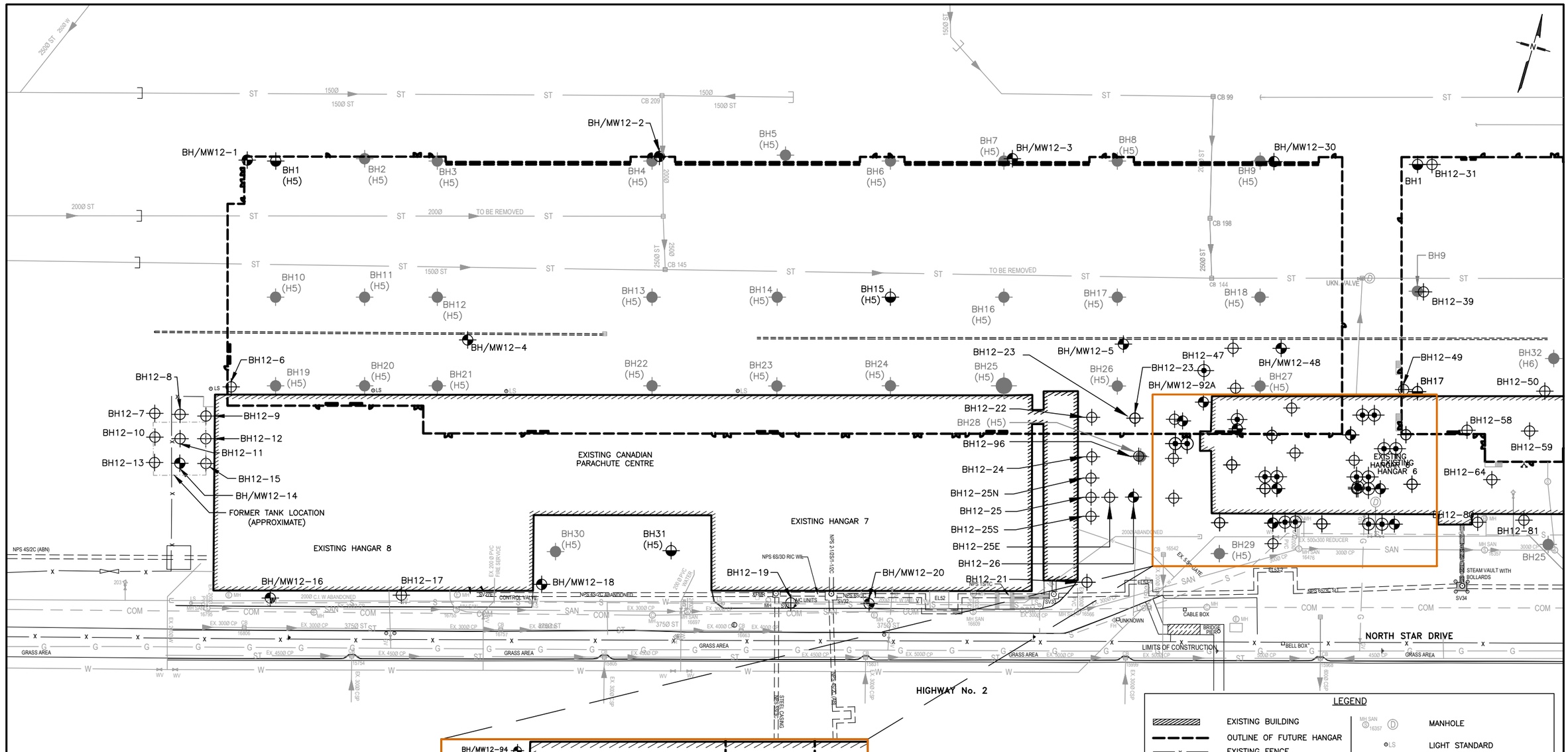
4.3 Free-Phase Product

During the measurement of water levels following the installation of wells as part of the supplemental investigation activities, free-phase DNAPL product was observed in shallow bedrock monitoring well MW12-95B; no evidence of groundwater was observed.

SLE, and subsequently DCC field personnel, periodically purged free product from MW12-95B as time permitted. Table 4.2 summarizes daily and cumulative volumes of product collected from MW12-95B. A plot of product volumes recovered over time is also presented in Table 4.2.

As of March 15, 2013, approximately 4,500 ml (4.5 L) of free product has been recovered. Generally, the quantity of free product recovered during each event has gradually reduced over this time. Water (approximately 100 mL) was only observed during one product recovery event, on January 30, 2013. It is likely that the water observed on January 30, 2013 was melt water that flowed into the well during product purging.

FIGURES



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2. NATIONAL DEFENCE, NEW MAINTENANCE HANGAR DEVELOPMENT, HANGAR 5, DEMOLITION & REMOVALS PLAN, DWG. #C-T81-3018-6002, FEBRUARY 25, 2011

LEGEND

- EXISTING BUILDING
- OUTLINE OF FUTURE HANGAR
- EXISTING FENCE
- SANITARY SEWER LINE
- COMMUNICATION LINE
- GAS LINE
- UTILITY LINE
- STORM SEWER LINE
- WATER LINE
- DRAINAGE TRENCH
- FIRE HYDRANT
- CATCH BASIN
- MANHOLE
- LIGHT STANDARD
- BOREHOLE (BY OTHERS)
- MONITORING WELL (BY OTHERS)
- BOREHOLE (SLE, 2012)
- BOREHOLE/MONITORING WELL (SLE, 2012)
- BEDROCK MONITORING WELL (SLE, 2012)

SCALE 1:1000
0 20 40m

SNC·LAVALIN Environment

Client/Location: DCC NEW HANGAR 5 & 6 – 8 WING CFB TRENTON TRENTON, ONTARIO		Title: BOREHOLE/MONITORING WELL LOCATIONS (NEW HANGAR 5)	
Project No: 12308	Filename: 12308-H5-MW-2.DWG	Date: MARCH 2013	Dwg No: FIGURE 3
Drawn: AG	Verified: MH	Project Manager: SW	

EXISTING HANGAR 10

NEW HANGAR 6

EXISTING HANGAR 6

EXISTING HANGAR 5

EXISTING HANGAR 7

WING OPS HANGAR 4

NORTH STAR DRIVE

HIGHWAY No. 2

TO BE REMOVED

BH/MW12-3 BH8 (H5) BH9 (H5) BH/MW12-30 BH1 BH12-31 BH2 BH12-32 BH12-33W BH3 BH12-33 BH12-33E BH12-33S BH4 BH/MW12-34 BH5 BH12-35 BH12-36 BH6 BH7 BH12-37 BH8 BH12-38

BH17 (H5) BH18 (H5) BH9 BH12-39 BH10 BH12-40 BH11 BH12-41 BH12-42 BH12 BH13 BH12-43 BH14 BH12-44 BH12-45 BH15 BH16 BH12-46

BH/MW12-51 BH/MW12-52 BH32 (H6) BH33 (H5) BH12-49 BH17 BH12-50 BH18 BH20 BH34 (H5) BH35 (H5) BH21 BH12-68 BH22 BH12-91 MW12-53 BH24

BH12-58 BH12-59 BH12-64 BH19 BH12-66 BH12-67 BH12-71N BH12-71W BH12-71 BH12-72 BH12-73 BH12-69 BH12-70 BH12-75 BH23

BH/MW12-65 BH12-80 BH12-81 BH/MW12-82 BH38 (H5) BH12-83 BH36 (H5) BH12-71E BH/MW12-86 BH12-85 BH12-88 BH12-74 BH37 (H5) BH/MW12-90

BH29 (H5) BH25 BH/MW12-84 BH12-87 BH/MW12-89

BH/MW12-94 BH12-27 BH/MW12-27 BH/MW12-54B BH/MW12-54 BH12-97 BH/MW12-98B BH/MW12-98A BH12-57 BH12-55 BH/MW12-56 BH/MW12-95B BH/MW12-95A BH12-28 BH12-60 BH12-105 BH12-100 BH/MW12-99B BH/MW12-99A BH/MW12-61A BH/MW12-101B BH/MW12-101A BH/MW12-61B BH/MW12-102B BH12-62 BH12-63 BH12-29 BH12-61 BH/MW12-61 BH/MW12-102A BH/MW12-102 BH12-76 BH/MW12-77 BH12-78 BH/MW12-79B BH/MW12-79 BH/MW12-77A BH12-103 BH/MW12-77B BH/MW12-79A BH29 (H5)

INSET SCALE 1:250

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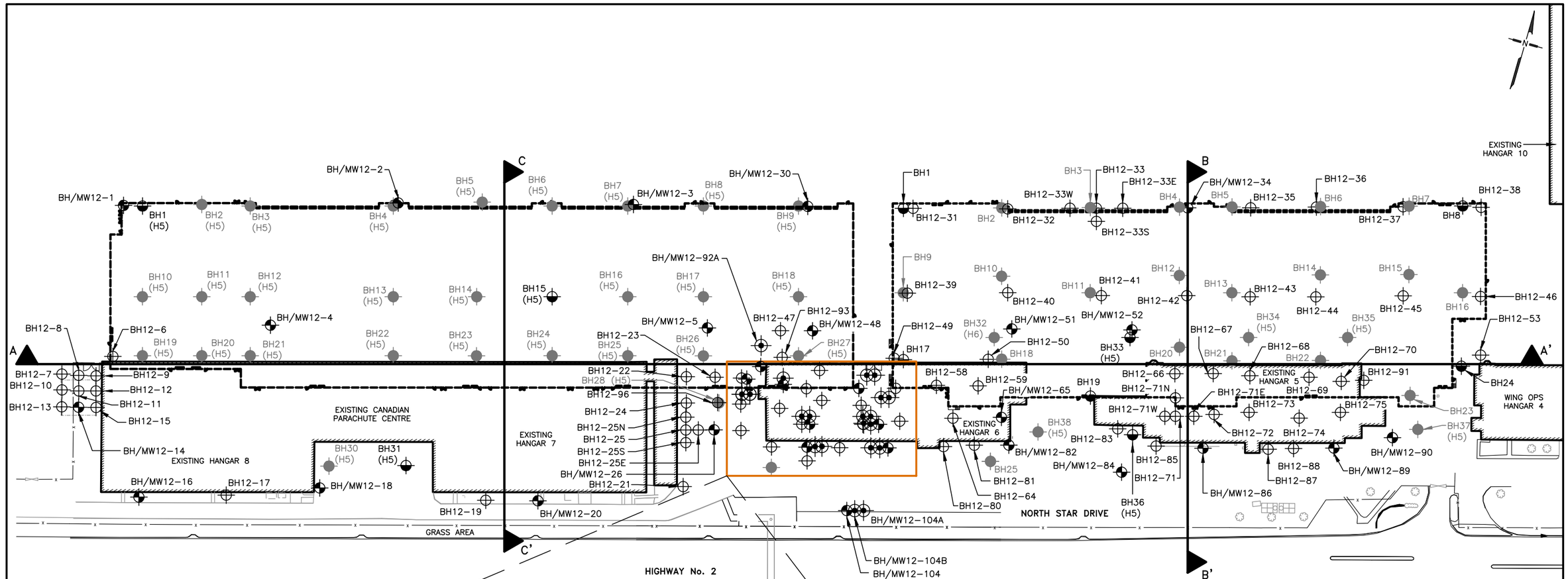
LEGEND

- EXISTING BUILDING
- OUTLINE OF FUTURE HANGAR
- x EXISTING FENCE
- SAN SANITARY SEWER LINE
- COM COMMUNICATION LINE
- G GAS LINE
- P UTILITY LINE
- ST STORM SEWER LINE
- W WATER LINE
- DRAINAGE TRENCH
- FIRE HYDRANT
- CB 145 CATCH BASIN
- MH SAN D 16357 MANHOLE
- LS LIGHT STANDARD
- BOREHOLE (BY OTHERS)
- MONITORING WELL (BY OTHERS)
- BOREHOLE (SLE, 2012)
- BOREHOLE/MONITORING WELL (SLE, 2012)

SCALE 1:1000
0 20 40m

SNC·LAVALIN Environment

Client/Location: DCC NEW HANGAR 5 & 6 – 8 WING CFB TRENTON TRENTON, ONTARIO		Title: BOREHOLE/MONITORING WELL LOCATIONS (NEW HANGAR 6)	
Project No: 12308	Filename: 12308-H6-MW-1.DWG	Date: MARCH 2013	Dwg No: FIGURE 4
Drawn: AG	Verified: MH	Project Manager: SW	



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3. NATIONAL DEFENCE, NEW MAINTENANCE HANGAR DEVELOPMENT, HANGAR 5, GEOTECHNICAL INVESTIGATION PLAN, DWG. #C-T81-3018-1003, FEBRUARY 25, 2011
4. NATIONAL DEFENCE, NEW MAINTENANCE HANGAR DEVELOPMENT, HANGAR 5, DEMOLITION & REMOVALS PLAN, DWG. #C-T81-3018-6002, FEBRUARY 25, 2011

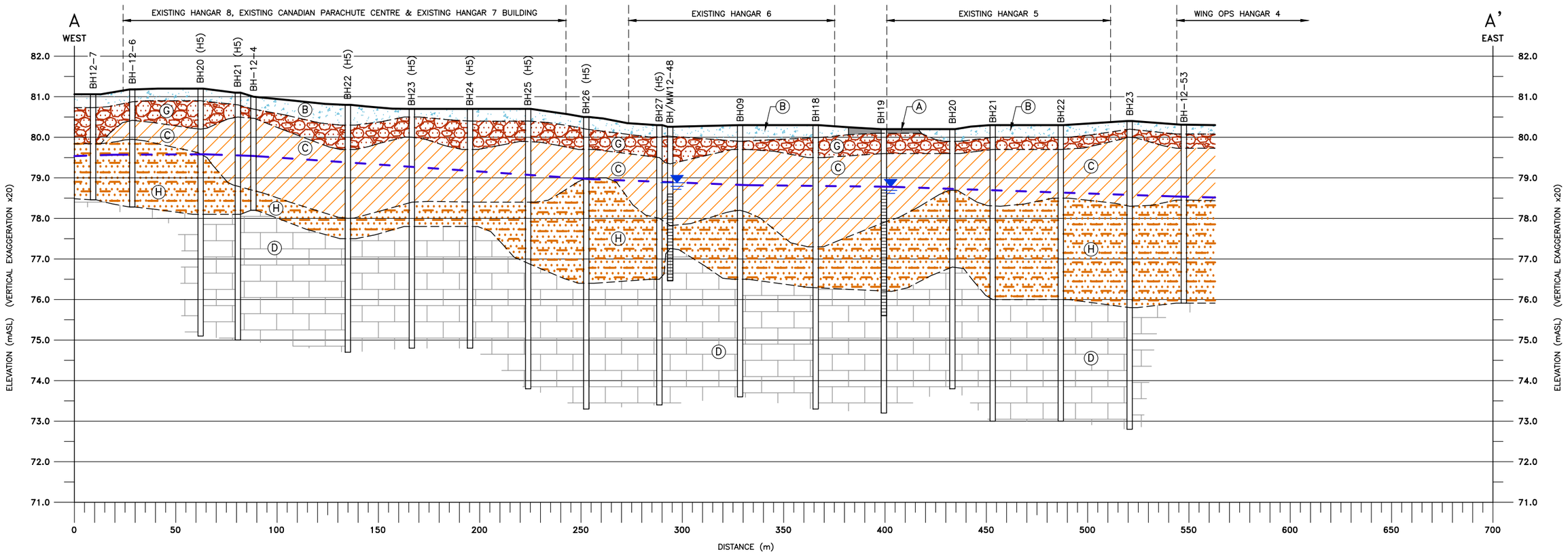
LEGEND

- EXISTING BUILDING
- OUTLINE OF FUTURE HANGAR
- EXISTING FENCE
- BOREHOLE (BY OTHERS)
- MONITORING WELL (BY OTHERS)
- BOREHOLE (SLE, 2012)
- BOREHOLE/MONITORING WELL (SLE, 2012)
- BEDROCK MONITORING WELL (SLE, 2012)
- B B' CROSS-SECTION LINE

SCALE 1:1500
0 30 60m

SNC·LAVALIN Environment

Client/Location: DCC NEW HANGAR 5 & 6 – 8 WING CFB TRENTON TRENTON, ONTARIO		Title: CROSS-SECTION LOCATIONS	
Project No: 12308	Filename: SITE_12308-3.DWG	Date: MARCH 2013	Dwg No: FIGURE 5
Drawn: AG	Verified: MH	Project Manager: SW	



LEGEND

- PROPERTY LINE
- GROUNDWATER LINE
- WATER LEVEL MEASURED IN DECEMBER 2010
- (A) ASPHALT
- (B) CONCRETE
- (C) CLAY
- (D) LIMESTONE
- (E) SAND
- (F) SAND FILL
- (G) SAND & GRAVEL FILL
- (H) SILTY SAND
- (I) TOPSOIL
- BOREHOLE
- MONITORING WELL WITH SCREEN INTERVAL

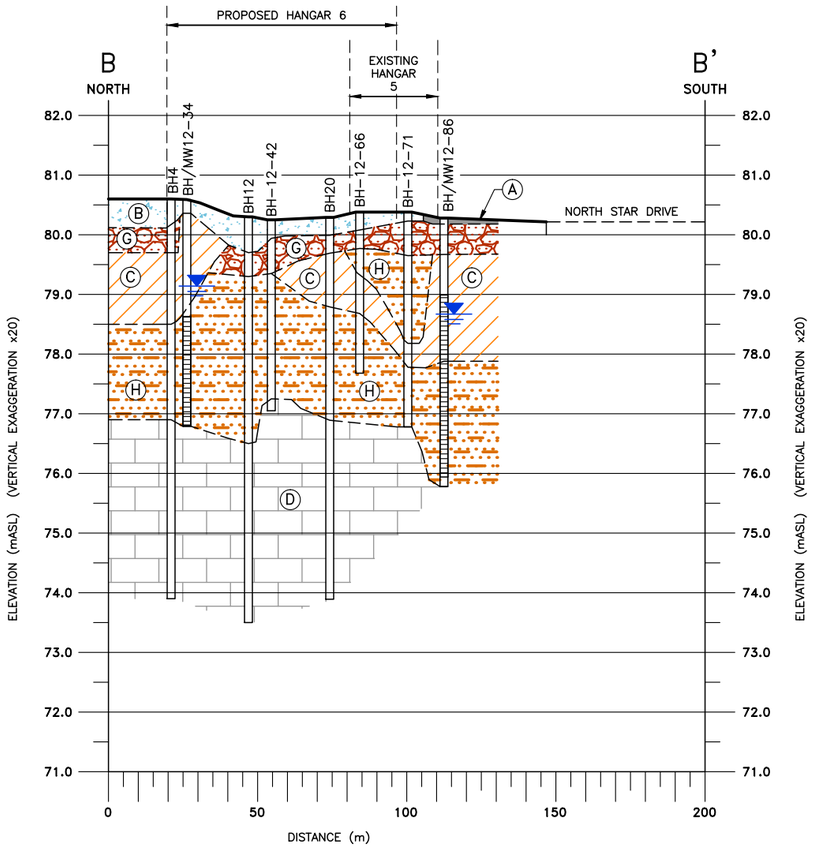
SCALE 1:2000 (HORIZONTAL)

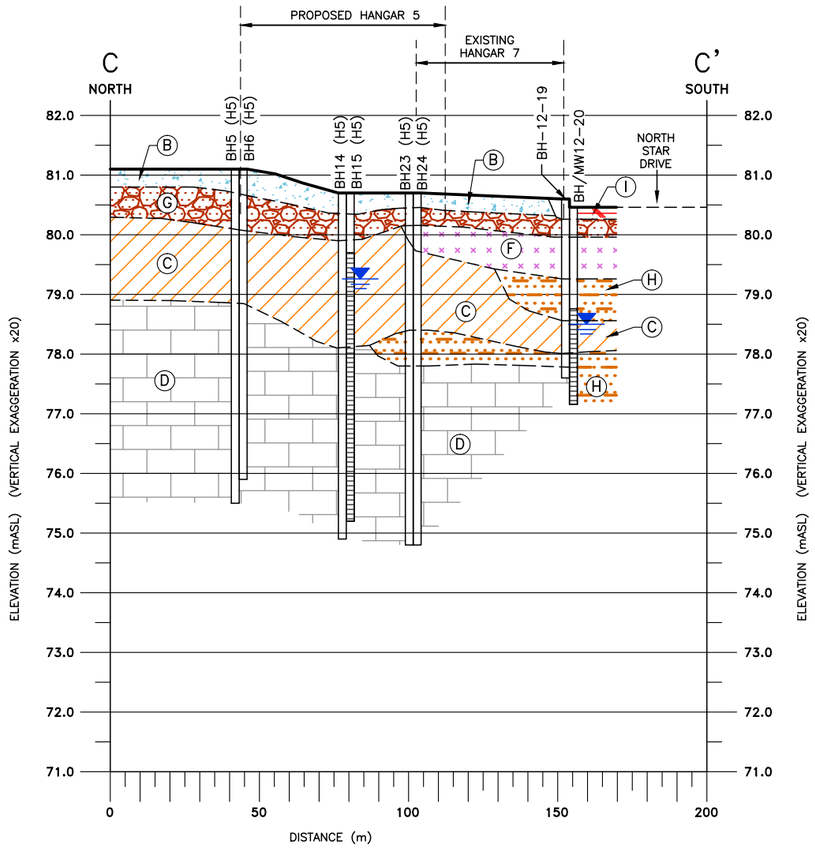
0 40 80m

NOTE(S):
1. SCALE AND SITE INFRASTRUCTURE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PHOTOCOPIED, FAXED OR PRINTED FROM PDF
3. BOREHOLE/MONITORING WELL DIAMETERS ARE EXAGGERATED FOR REPRESENTATION

SNC·LAVALIN Environment

Client/Location: DCC NEW HANGAR 5 & 6 – 8 WING CFB TRENTON TRENTON, ONTARIO			Title: GEOLOGICAL CROSS SECTION A–A'
Project No: 12308	Filename: 12308-XS-AA-2.DWG	Date: MARCH 2013	Dwg No: FIGURE 6
Drawn: AG/EM	Verified: MH	Project Manager: SW	





LEGEND

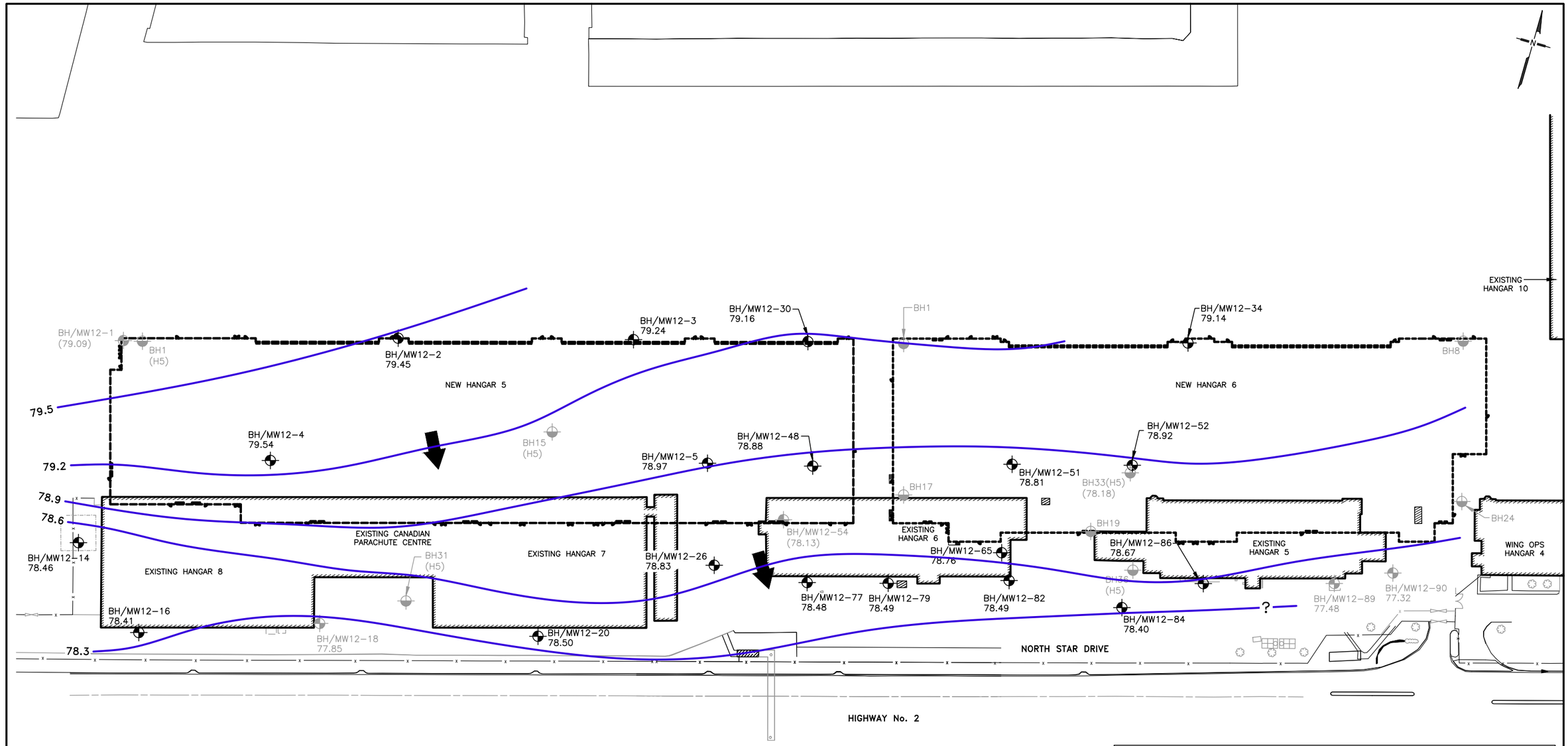
- PROPERTY LINE
- GROUNDWATER LINE
- WATER LEVEL MEASURED IN APRIL 30, 2012
- (A) ASPHALT
- (B) CONCRETE
- (C) CLAY
- (D) LIMESTONE
- (E) SAND
- (F) SAND FILL
- (G) SAND & GRAVEL
- (H) SILTY SAND
- (I) TOPSOIL
- BOREHOLE
- MONITORING WELL WITH SCREEN INTERVAL

SCALE 1:2000 (HORIZONTAL)
0 40 80m

NOTE(S):
1. SCALE AND SITE INFRASTRUCTURE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PHOTOCOPIED, FAXED OR PRINTED FROM PDF
3. BOREHOLE/MONITORING WELL DIAMETERS ARE EXAGGERATED FOR REPRESENTATION

SNC·LAVALIN Environment

Client/Location: DCC NEW HANGAR 5 & 6 – 8 WING CFB TRENTON TRENTON, ONTARIO		Title: GEOLOGICAL CROSS–SECTIONS B–B' & C–C'	
Project No: 12308	Filename: 12308–XS–BBCC–1.DWG	Date: MARCH 2013	Dwg No: FIGURE 7
Drawn: AG/EM	Verified: MH	Project Manager: SW	



LEGEND

- EXISTING BUILDING
- OUTLINE OF FUTURE HANGAR
- EXISTING FENCE
- MONITORING WELL (BY OTHERS)
- BOREHOLE/MONITORING WELL (SLE, 2012)
- 79.4 INTERPRETED WATER LEVEL ELEVATION CONTOUR (m)
- 79.76 WATER LEVEL ELEVATION (m) (APRIL 30, 2012)
- (78.18) WATER LEVEL ELEVATION NOT INCLUDED IN INTERPOLATION
- INTERPRETED HORIZONTAL GROUNDWATER FLOW DIRECTION

SCALE 1:1500

0 30 60m

NOTE(S):
1. SCALE AND SITE INFRASTRUCTURE LOCATIONS ARE APPROXIMATE
2. INFORMATION ON THIS FIGURE MAY BE LOST IF IT IS PHOTOCOPIED, FAXED OR PRINTED FROM PDF

SOURCE(S):
1. NATIONAL DEFENCE, NEW MAINTENANCE HANGAR DEVELOPMENT, HANGAR 6, GEOTECHNICAL INVESTIGATION PLAN, DWG. #C-T81-3019-1003, DECEMBER 4, 2009
2. NATIONAL DEFENCE, NEW MAINTENANCE HANGAR DEVELOPMENT, HANGAR 6, DEMOLITION PLAN, DWG. #C-T81-3019-6002, DECEMBER 4, 2009
3. NATIONAL DEFENCE, NEW MAINTENANCE HANGAR DEVELOPMENT, HANGAR 5, GEOTECHNICAL INVESTIGATION PLAN, DWG. #C-T81-3018-1003, FEBRUARY 25, 2011
4. NATIONAL DEFENCE, NEW MAINTENANCE HANGAR DEVELOPMENT, HANGAR 5, DEMOLITION & REMOVALS PLAN, DWG. #C-T81-3018-6002, FEBRUARY 25, 2011

SNC·LAVALIN Environment

Client/Location: DCC HANGAR 5 & 6 – 8 WING CFB TRENTON TRENTON, ONTARIO		Title: INTERPRETED HORIZONTAL GROUNDWATER FLOW DIRECTION (APRIL 30, 2012)	
Project No: 12308	Filename: 12308-CT-AP12.DWG	Date: MARCH 2012	Dwg No: FIGURE 8
Drawn: AG	Verified: MH	Project Manager: SW	

TABLES

TABLE 4.1 SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS
8 Wing CFB Trenton - New Hangars 5 and 6

Monitoring Well	Ground Surface Elevation[1] (m amsl)	Top of Riser Elevation[1] (m amsl)	Top of Well Screen Elevation[1] (m amsl)	Bottom of Well Screen Elevation[1] (m amsl)	Well Depth (m btr)	30-Apr-2012		30-Jul/01-Aug-2012		13-Aug-2012		17-Sep-2012	
						Depth to Water (m btr)	Water Table Elevation[1] (m amsl)	Depth to Water (m btr)	Water Table Elevation[1] (m amsl)	Depth to Water (m btr)	Water Table Elevation[1] (m amsl)	Depth to Water (m btr)	Water Table Elevation[1] (m amsl)
Overburden													
BH1(H5)	81.42	81.40	-	75.81	5.6	1.64	79.76	nm	nm	nm	nm	nm	nm
BH15(H5)	80.68	80.65	-	75.16	5.5	1.39	79.26	nm	nm	nm	nm	nm	nm
BH31(H5)	80.79	80.75	-	74.32	6.4	1.99	78.77	nm	nm	nm	nm	nm	nm
BH33(H5)	80.18	80.16	-	73.43	6.7	1.48	78.68	nm	nm	nm	nm	nm	nm
BH36(H5)	80.25	80.16	-	75.11	5.1	1.54	78.62	nm	nm	nm	nm	nm	nm
BH1	80.87	80.82	-	76.29	4.5	1.54	79.28	nm	nm	nm	nm	nm	nm
BH8	80.67	80.62	-	76.38	4.2	1.62	79.00	nm	nm	nm	nm	nm	nm
BH17	80.32	80.28	-	75.72	4.6	1.46	78.82	nm	nm	nm	nm	nm	nm
BH19	80.29	80.25	-	75.66	4.6	1.47	78.78	nm	nm	nm	nm	nm	nm
BH24	80.33	80.21	-	74.20	6.0	1.67	78.54	nm	nm	nm	nm	nm	nm
MW12-1	81.42	81.29	80.48	78.95	2.3	2.21	79.09	nm	nm	nm	nm	nm	nm
MW12-2	81.37	81.24	80.24	78.71	2.5	1.79	79.45	nm	nm	nm	nm	nm	nm
MW12-3	81.05	80.92	78.98	77.45	3.5	1.68	79.24	nm	nm	nm	nm	nm	nm
MW12-4	81.00	80.86	80.06	78.23	2.6	1.32	79.54	nm	nm	nm	nm	nm	nm
MW12-5	80.39	80.28	78.96	76.52	3.8	1.31	78.97	nm	nm	nm	nm	1.212	79.07
MW12-14	81.15	81.06	79.67	78.15	2.9	2.60	78.46	nm	nm	nm	nm	nm	nm
MW12-16	81.02	80.94	79.43	77.91	3.0	2.53	78.41	nm	nm	nm	nm	nm	nm
MW12-18	80.92	80.80	79.29	77.76	3.0	2.96	77.85	nm	nm	nm	nm	nm	nm
MW12-20	80.46	80.41	78.76	77.24	3.2	1.91	78.50	nm	nm	nm	nm	nm	nm
MW12-26	80.71	80.52	77.97	76.44	4.1	1.68	78.83	nm	nm	nm	nm	1.547	78.97
MW12-27	80.65	80.52	78.94	77.42	3.1	ni	ni	1.59	78.93	nm	nm	1.459	79.06
MW12-30	80.93	80.80	79.68	77.24	3.6	1.63	79.16	nm	nm	nm	nm	nm	nm
MW12-34	80.59	80.42	78.63	76.81	3.6	1.28	79.14	nm	nm	nm	nm	nm	nm
MW12-48	80.26	80.07	78.60	76.47	3.6	1.19	78.88	nm	nm	nm	nm	nm	nm
MW12-51	80.17	80.05	78.77	76.33	3.7	1.24	78.81	nm	nm	nm	nm	nm	nm
MW12-52	80.11	79.95	78.61	76.47	3.5	1.03	78.92	nm	nm	nm	nm	nm	nm
MW12-54	80.47	80.40	77.78	77.17	3.2	1.27	79.13	nm	nm	nm	nm	1.561	78.84
MW12-56	80.50	80.41	78.34	76.82	3.6	ni	ni	3.31	77.10	nm	nm	dest	--
MW12-61	80.44	80.37	79.14	77.31	3.1	ni	ni	2.88	77.49	nm	nm	1.459	78.91
MW12-65	80.30	80.30	77.80	76.59	3.7	1.54	78.76	nm	nm	nm	nm	nm	nm
MW12-77	80.29	80.18	78.03	76.20	4.0	1.70	78.48	nm	nm	nm	nm	1.512	78.67
MW12-79	80.25	80.19	78.47	76.34	3.9	1.70	78.49	nm	nm	nm	nm	1.522	78.66
MW12-82	80.27	80.19	78.40	76.26	3.9	1.70	78.49	nm	nm	nm	nm	nm	nm
MW12-84	80.03	79.94	78.10	75.97	4.0	1.54	78.40	nm	nm	nm	nm	nm	nm
MW12-86	80.28	80.17	78.99	75.94	4.2	1.50	78.67	nm	nm	nm	nm	nm	nm
MW12-89	80.37	80.30	79.06	76.02	4.3	2.82	77.48	nm	nm	nm	nm	nm	nm
MW12-90	80.42	80.27	78.93	75.88	4.4	2.95	77.32	nm	nm	nm	nm	nm	nm
MW12-94	80.59	80.45	78.87	77.35	3.1	ni	ni	1.49	78.96	nm	nm	1.374	79.08
MW12-102	80.48	80.38	77.92	76.42	4.0	ni	ni		80.38	nm	nm	dest	--
MW12-104	80.22	80.07	78.64	76.20	3.9	ni	ni	1.85	78.22	nm	nm	1.662	78.40

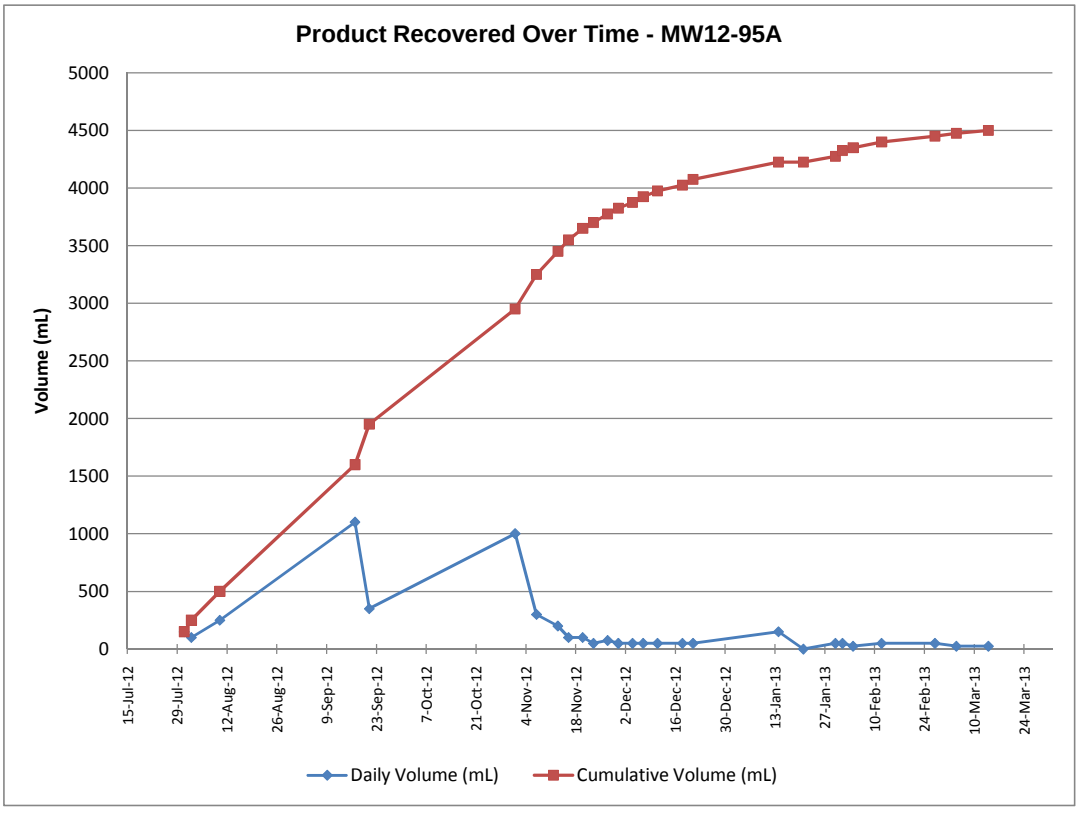
TABLE 4.1 SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS
8 Wing CFB Trenton - New Hangars 5 and 6

Monitoring Well	Ground Surface Elevation[1] (m amsl)	Top of Riser Elevation[1] (m amsl)	Top of Well Screen Elevation[1] (m amsl)	Bottom of Well Screen Elevation[1] (m amsl)	Well Depth (m btr)	30-Apr-2012		30-Jul/01-Aug-2012		13-Aug-2012		17-Sep-2012	
						Depth to Water (m btr)	Water Table Elevation[1] (m amsl)	Depth to Water (m btr)	Water Table Elevation[1] (m amsl)	Depth to Water (m btr)	Water Table Elevation[1] (m amsl)	Depth to Water (m btr)	Water Table Elevation[1] (m amsl)
Shallow Bedrock													
MW12-54B	80.43	80.33	75.24	73.71	6.6	ni	ni	dry	dry	5.64	74.69	5.739	74.59
MW12-61B	80.40	80.24	75.31	73.78	6.5	ni	ni	dry	dry	4.79	75.45	1.530	78.71
MW12-77B	80.33	80.18	75.10	73.57	6.6	ni	ni	1.82	78.37	nm	nm	1.383	78.80
MW12-79B	80.25	80.17	75.07	73.55	6.6	ni	ni	1.73	78.44	nm	nm	1.309	78.86
MW12-95B	80.66	80.58	75.74	74.21	6.4	ni	ni	dry	dry	nm	nm	nm	nm
MW12-98B	80.47	80.42	75.41	73.89	6.5	ni	ni	dry	dry	5.87	74.55	dest	--
MW12-99B	80.49	80.37	75.54	74.01	6.4	ni	ni	dry	dry	5.76	74.61	dest	--
MW12-101B	80.50	80.42	75.42	73.89	6.5	ni	ni	dry	dry	5.43	75.00	dest	--
MW12-102B	80.50	80.40	75.61	74.08	6.3	ni	ni	dry	dry	5.59	74.81	dest	--
MW12-104B	80.20	80.13	75.20	73.68	6.4	ni	ni	1.72	78.41	nm	nm	1.465	78.66
Deep Bedrock													
MW12-61A	80.44	80.34	73.30	70.26	10.1	ni	ni	9.99	70.35	8.33	72.01	8.116	72.22
MW12-77A	80.36	80.25	73.23	70.18	10.1	ni	ni	2.11	78.14	nm	nm	1.561	78.69
MW12-79A	80.26	80.16	73.22	70.17	10.0	ni	ni	1.85	78.31	nm	nm	1.684	78.47
MW12-92A	80.47	80.40	73.54	70.49	9.9	ni	ni	2.23	78.17	nm	nm	1.573	78.83
MW12-95A	80.67	80.57	73.46	70.41	10.2	ni	ni	9.31	71.26	nm	nm	2.335	78.23
MW12-98A	80.49	80.34	73.40	70.36	10.0	ni	ni	dry	dry	5.39	74.96	dest	--
MW12-99A	80.48	80.34	73.21	70.17	10.2	ni	ni	dry	dry	6.60	73.74	dest	--
MW12-101A	80.50	80.38	73.33	70.28	10.1	ni	ni	dry	dry	6.37	74.01	dest	--
MW12-102A	80.49	80.40	73.46	70.42	10.0	ni	ni	dry	dry	7.98	72.42	dest	--
MW12-104A	80.22	80.12	73.15	70.10	10.0	ni	ni	1.98	78.14	nm	nm	2.241	77.88

[1] elevations relative to geodetic benchmark
[A] Deep bedrock interval
[B] Shallow bedrock interval
m asl meters above mean sea level
m bgs meters below ground surface
m btr meters below top of the monitoring well riser pipe
nm not monitored
ni not installed
- unknown

TABLE 4.2 **Product Recovery Summary - Shallow Bedrock Monitoring Well MW12-95B**
8 Wing CFB Trenton - New Hangars 5 and 6

Date	Approx. Volume Collected (mL)	Cumulative Volume Collected (ml)	Collected By
31-Jul-12	**150**	150	SNC
2-Aug-12	**100**	250	SNC
10-Aug-12	**250**	500	SNC
17-Sep-12	**1100**	1600	SNC
21-Sep-12	**350**	1950	SNC
1-Nov-12	**1000**	2950	DCC
7-Nov-12	**300**	3250	DCC
13-Nov-12	**200**	3450	DCC
16-Nov-12	**100**	3550	DCC
20-Nov-12	**100**	3650	DCC
23-Nov-12	**50**	3700	DCC
27-Nov-12	**75**	3775	DCC
30-Nov-12	**50**	3825	DCC
4-Dec-12	**50**	3875	DCC
7-Dec-12	**50**	3925	DCC
11-Dec-12	**50**	3975	DCC
18-Dec-12	**50**	4025	DCC
21-Dec-12	**50**	4075	DCC
14-Jan-13	**150**	4225	DCC
21-Jan-13	**0**	4225	DCC
30-Jan-13	**50**	4275	DCC
1-Feb-13	**50**	4325	DCC
4-Feb-13	**25**	4350	DCC
12-Feb-13	**50**	4400	DCC
27-Feb-13	**50**	4450	DCC
5-Mar-13	**25**	4475	DCC
14-Mar-13	**25**	4500	DCC



SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-1

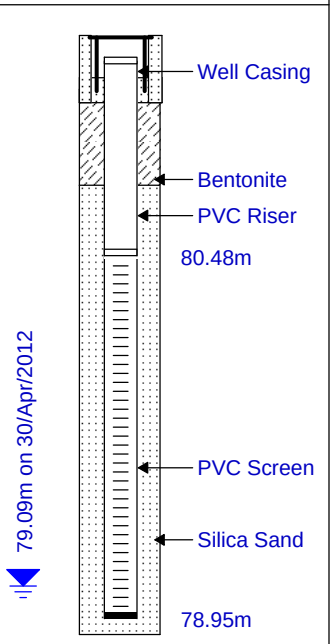
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 24 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: HSA
Borehole Diameter: 250 mm
Monitoring Well Diameter: 50 mm

Drilling Company: Downing`
Drilling Equipment: CME 55 Truckmount
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	81.42
1								CONCRETE	
2								Soil Lithology/Sampling not conducted.	81.00
3 / 1									
4									
5									80.00
6 / 2									
7									
8									79.00
9								Refusal at 2.5 m bgs	
10 / 3									
11									78.00
12									
13 / 4									
14									
15									77.00

Top of Riser Elev.= 81.29 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-2

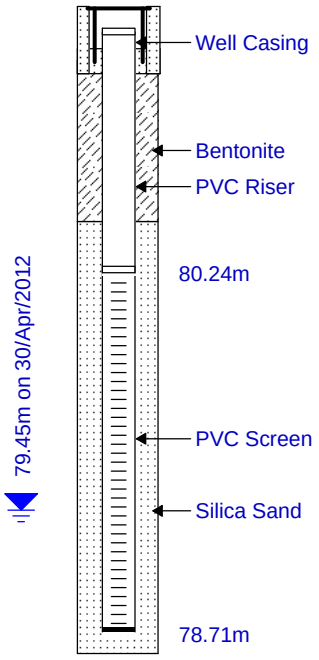
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 24 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: HSA
Borehole Diameter: 250 mm
Monitoring Well Diameter: 50 mm

Drilling Company: Downing`
Drilling Equipment: CME 55 Truckmount
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	81.37
								CONCRETE	
1								Soil Lithology/Sampling not conducted.	81.00
2									
3 / 1									
4									
5									80.00
6 / 2									
7									
8									79.00
9									
10 / 3								Refusal at 2.7 m bgs	
11									78.00
12									
13 / 4									
14									77.00
15									

Top of Riser Elev.= 81.24 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-3

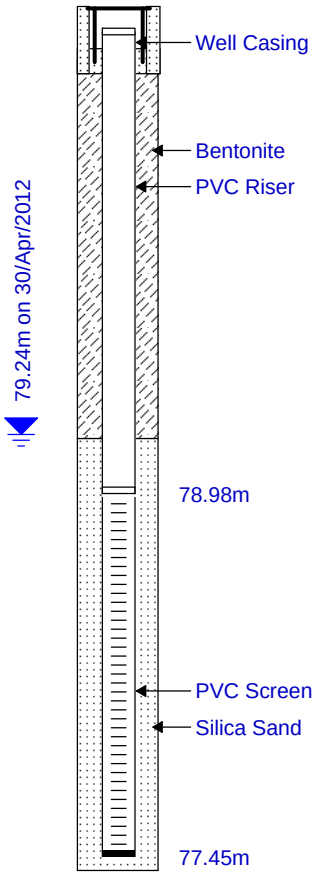
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 24 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: HSA
Borehole Diameter: 250 mm
Monitoring Well Diameter: 50 mm

Drilling Company: Downing`
Drilling Equipment: CME 55 Truckmount
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	81.05
								CONCRETE	
								Soil Lithology/Sampling not conducted.	
12 / 3.7								Refusal at 3.7 m bgs	77.00

Top of Riser Elev.= 80.92 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-4

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 24 April 2012
Site Datum: Geodetic

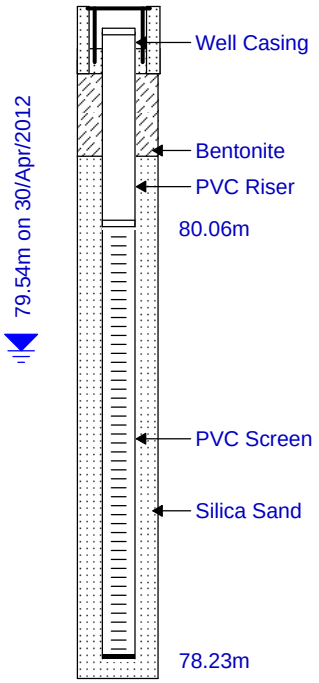
SLE Supervisor: Brian S.
Drilling Method: HSA
Borehole Diameter: 250 mm
Monitoring Well Diameter: 50 mm

Drilling Company: Downing`
Drilling Equipment: CME 55 Truckmount
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	81.00
								CONCRETE	
								Soil Lithology/Sampling not conducted.	80.00
								Refusal at 2.8 m bgs	79.00 / 78.00 / 77.00

ft / m: 0 / 0, 1 / 1, 2 / 2, 3 / 3, 4 / 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15

Top of Riser Elev.= 80.86 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-5

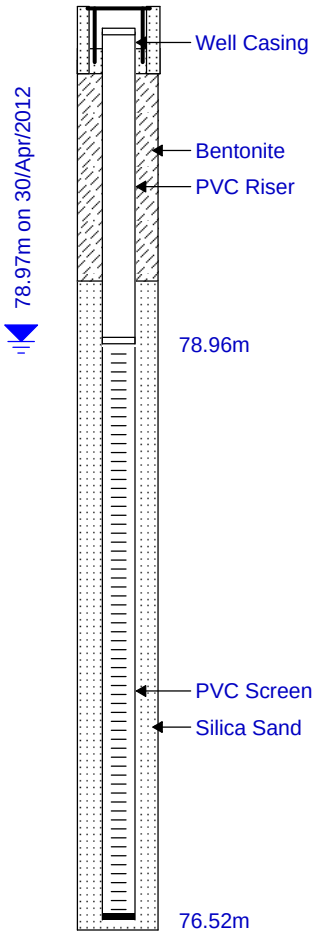
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 24 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: HSA
Borehole Diameter: 250 mm
Monitoring Well Diameter: 50 mm

Drilling Company: Downing`
Drilling Equipment: CME 55 Truckmount
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.39
1								CONCRETE	
2								Soil Lithology/Sampling not conducted.	80.00
3 / 1									
4									
5									79.00
6 / 2									
7									
8									78.00
9									
10 / 3									
11									77.00
12									
13 / 4								Refusal at 3.9 m bgs	
14									76.00
15									

Top of Riser Elev.= 80.28 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-6

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 25 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	81.18
0		-		-	-	-		CONCRETE	
1		BH12-6 (1-2)	◆	30	2	65%		SAND AND GRAVEL FILL wet, grey brown	
2									
3 / 1		BH12-6 (2-4)		25	2	65%		CLAY moist, grey	
4									80.00
5		BH12-6 (4-6)		500	540	100%		SILTY SAND moist, grey, PHC odors	
6									
7 / 2		BH12-6 (6-8)	◆	600	590	100%		25 mm of black staining at 1.9 m bgs	79.00
8									
9		BH12-6 (8-10)		65	42	100%			
10 / 3								Refusal at 2.9 m bgs	78.00
11									
12									
13 / 4									77.00
14									
15									

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-7

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 25 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	81.06
0	0								CONCRETE	
1			BH12-7 (0-2)		30	0	65%		SAND AND GRAVEL FILL moist, brown	
2										
3	1		BH12-7 (2-4)	◆	40	0	65%			80.00
4									127 mm black fractured rock	
5			BH12-7 (4-6)		65	0	100%		SILTY SAND moist, grey/brown	
6										
7	2		BH12-7 (6-8)		75	0	100%			79.00
8			BH12-7 (8-8.5)	◆	75	0	100%			
9									Refusal at 2.6 m bgs	
10	3									78.00
11										
12										
13	4									77.00
14										
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-8

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 25 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	81.21
0–1 / 0		BH12-8 (0-1)	◆	50	0	100%		TOPSOIL moist, dark brown	81.00
1–2		BH12-8 (1-2)		50	0	100%		SILTY SAND FILL moist, brown	
2–4 / 1		BH12-8 (2-4)		35	0	100%			
4–5		BH12-8 (4-6)		45	0	100%		CLAY moist, grey/brown	80.00
5–7 / 2		BH12-8 (6-8)		40	0	100%		SILTY SAND moist, brown	79.00
8–9		BH12-8 (8-9)	◆	35	0	50%			
9–10 / 3								Refusal at 2.8 m bgs	78.00
11–13 / 4									77.00
14–15									

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-9

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 25 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	81.18
1		BH12-9 (0-2)		70	0	65%		TOPSOIL dry, brown	
2								SILTY SAND dry to moist, brown	
3 / 1		BH12-9 (2-4)	◆	75	0	65%			
4									80.00
5		BH12-9 (4-6)		25	0	40%		wet	
6		BH12-9 (6-7)	◆	20	0	85%			
7 / 2								Refusal at 2.0 m bgs	79.00
8									
9									
10 / 3									78.00
11									
12									
13 / 4									77.00
14									
15									

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-10

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 25 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	81.05
0	0								CONCRETE grey	
1			BH12-10 (0-2)	◆	30	0	85%		SAND AND GRAVEL FILL moist, grey, foul sewage odor	
2										
3	1		BH12-10 (2-4)		10	0	85%		no odor	80.00
4									SILTY SAND moist, brown	
5			BH12-10 (4-6)		75	0	100%			
6										
7	2		BH12-10 (6-8)		60	0	100%			79.00
8										
9			BH12-10 (8-9)		75	0	85%			
10	3								Refusal at 2.8 m bgs	78.00
11										
12										
13	4									77.00
14										
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-11

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 25 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	81.12
0	0								TOPSOIL AND ORGANICS moist, dark brown	
1			BH12-11 (0-2)		50	0	100%		SILTY SAND FILL moist, dark brown	
2										
3	1		BH12-11 (2-4)	◆	55	0	100%			
4									SILTY SAND moist, brown	80.00
5			BH12-11 (4-6)		25	0	100%			
6	2									
7			BH12-11 (6-8)		30	0	100%			79.00
8									wet	
9			BH12-11 (8-9.5)	◆	35	0	100%			
10	3								Refusal at 2.9 m bgs	78.00
11										
12										
13	4									77.00
14										
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-12

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 25 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	81.11
0	0								TOPSOIL AND ORGANICS moist, brown	
1			BH12-12 (0-2)		50	0	60%		SAND AND GRAVEL FILL dry, grey/brown	
2										
3	1		BH12-12 (2-4)	◆	60	0	60%			80.00
4										
5			BH12-12 (4-6)		70	0	50%		wet	
6										
7	2		BH12-12 (6-8)		160	2	50%			79.00
8									slight PHC odor	
9			BH12-12 (8-10)	◆	200	116	80%			
10	3								Refusal at 3.0 m bgs	78.00
11										
12										
13	4									77.00
14										
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-13

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 25 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	81.04
0	0								CONCRETE grey	
1			BH12-13 (0-2)		60	0	60%		SAND AND GRAVEL FILL moist, brown	
2										
3	1		BH12-13 (2-4)		50	0	60%			80.00
4										
5			BH12-13 (4-6)		45	0	40%			
6										
7	2		BH12-13 (6-8)		50	0	40%			79.00
8										
9			BH12-13 (8-9)		60	0	80%			
10	3								Refusal at 2.8 m bgs	78.00
11										
12										
13	4									77.00
14										
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-14

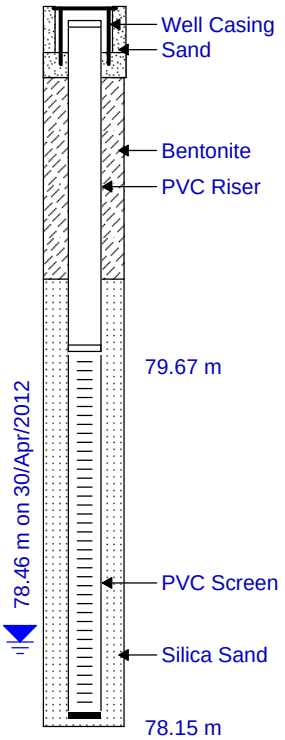
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 25 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm
Monitoring Well Diameter: 32 mm

Drilling Company: Downing`
Drilling Equipment: Geoprobe
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	81.15
								TOPSOIL	
1		BH12-14 (0-2)		55	0	100%		SILTY SAND FILL moist, brown, some clay	
2									
3 / 1		BH12-14 (2-4)	◆	75	0	100%			
4									80.00
5		BH12-14 (4-6)		50	0	100%		SILTY SAND moist to wet, brown	
6									
7 / 2		BH12-14 (6-8)		50	0	100%			79.00
8									
9		BH12-14 (8-10)	◆	60	0	100%			
10 / 3								Refusal at 3.0 m bgs	78.00
11									
12									
13 / 4									77.00
14									
15									

Top of Riser Elev. = 81.06 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-15

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 25 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	81.10
0–1	0		BH12-15 (0-2)	◆	40	0	75%		TOPSOIL AND ORGANICS moist, brown SAND AND GRAVEL FILL dry, dark brown	
2–3			BH12-15 (2-3)		35	0	75%			
3–4	1		BH12-15 (3-4)	◆	-	-	75%		SILTY SAND moist, brown	80.00
4–5			BH12-15 (4-6)		60	0	100%			
6–7	2		BH12-15 (6-8)		70	0	100%			79.00
8–9			BH12-15 (8-9)	◆	80	0	100%		wet	
									Refusal at 2.8 m bgs	
10–11	3									78.00
12–13	4									77.00
14–15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-16

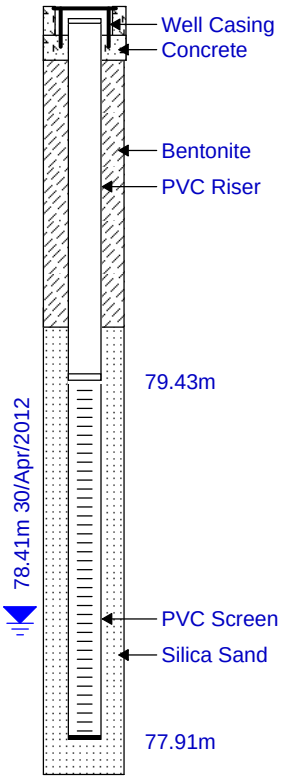
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm
Monitoring Well Diameter: 32 mm

Drilling Company: Downing`
Drilling Equipment: Geoprobe
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	81.02
1		BH12-16 (0-2)		30	0	85%		TOPSOIL dry, brown	
2								SAND AND GRAVEL FILL dry, brown	
3 / 1		BH12-16 (2-4)		25	0	85%		SILTY SAND FILL dry, brown	80.00
4									
5		BH12-16(4-6)		30	0	40%		SILTY SAND moist, brown	
6 / 2									
7		BH12-16 (6-8)		40	0	40%			79.00
8									
9		BH12-16(8-10)		30	0	65%			
10 / 3									78.00
		BH12-16(10-11)	◆	35	0	65%			
11								Refusal at 3.3 m bgs	
12									
13 / 4									77.00
14									
15									

Top of Riser Elev. = 80.94 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-17

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	81.10
0–1	0		BH12-17 (0-2)		45	0	85%		TOPSOIL moist SAND AND GRAVEL FILL dry, brown	
2–3	1		BH12-17 (2-4)	◆	60	0	85%		SILTY SAND moist, brown	80.00
4–5			BH12-17 (4-6)		60	0	100%			
6–7	2		BH12-17 (6-8)	◆	50	0	100%		CLAY moist, brown SILTY SAND moist, brown	79.00
8			BH12-17 (8-8.5)		65	0	100%			
9–10	3								Refusal at 2.6 m bgs	78.00
11–12										
13	4									77.00
14–15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-18

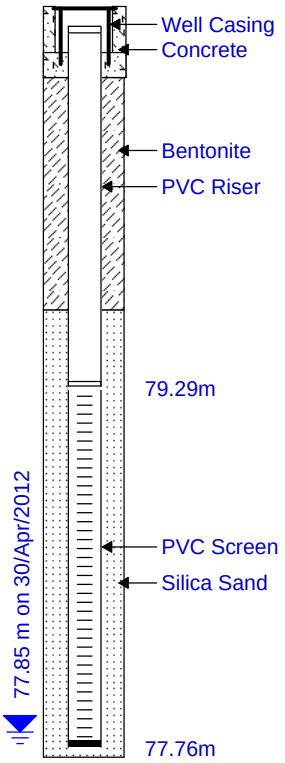
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm
Monitoring Well Diameter: 32 mm

Drilling Company: Downing`
Drilling Equipment: Geoprobe
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.92
0								ASPHALT	
1		BH12-18 (0-2)		35	0	85%		SAND AND GRAVEL FILL dry, brown	
2								SILTY SAND moist, brown	
3 / 1		BH12-18 (2-4)	◆	55	0	85%			80.00
4									
5		BH12-18 (4-6)		70	0	100%			
6								76 mm of dry black fractured rock	
7 / 2		BH12-18 (6-8)		75	0	100%			79.00
8									
9		BH12-18 (8-10)	◆	70	0	100%			
10 / 3									78.00
11								Refusal at 3.2 m bgs	
12									
13 / 4									77.00
14									
15									

Top of Riser Elev. = 80.80 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-19

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 25 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.60
0–1	0		BH12-19 (0-2)	◆	75	0	65%		TOPSOIL AND ORGANICS moist, brown	
									SAND AND GRAVEL FILL dry, brown	
2–3	1		BH12-19 (2-4)		70	0	65%		SILTY SAND FILL moist	80.00
4–5			BH12-19 (4-6)		35	0	100%			79.00
6–7	2		BH12-19 (6-8)		50	0	100%			
8									CLAY moist, brown	
9	3		BH12-19 (8-10)	◆	45	0	65%		SILTY SAND moist, brown	78.00
									LIMESTONE	
10–15	3–4								Refusal at 3.0 m bgs	77.00 76.00

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-20

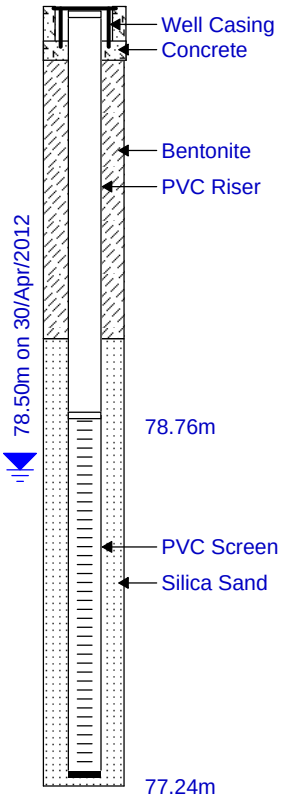
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push/HSA
Borehole Diameter: 83 mm
Monitoring Well Diameter: 32 mm

Drilling Company: Downing`
Drilling Equipment: Geoprobe/CME
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.46
0–1 / 0		BH12-20 (0-2)	◆	70	0	85%		TOPSOIL SAND FILL dry	80.00
2–3 / 1		BH12-20 (2-4)	◆	50	0	85%			
4–5 / 1		BH12-20 (4-6)		65	0	85%		SILTY SAND moist, brown	79.00
6–7 / 2		BH12-20 (6-8)		70	0	85%		CLAY moist, brown	
8–9 / 2		BH12-20 (8-10.5)	◆	35	0	100%		SILTY SAND moist, brown	78.00
10 / 3								Note: used HSA for well installation and geoprobe for stratigraphy	
11–12 / 3								Refusal at 3.3 m bgs using HSA	77.00
13–14 / 4									
15 / 4									76.00

Top of Riser Elev. = 80.41 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-21

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.40
0–3	0–1		BH12-21 (0-2)		35	0	10%		ASPHALT SAND FILL moist, brown, slight PHC odor	80.00
3–4	1		BH12-21 (2-4)		35	0	10%			
4–5	1–2		BH12-21 (4-6)	◆	60	0	40%		CLAY moist, brown	79.00
6–7	2		BH12-21 (6-8)		25	0	40%			
8–9	2–3		BH12-21 (8-10)		20	0	100%		SILTY SAND moist, brown	78.00
10–11	3		BH12-21 (10-12)	◆	40	0	100%			77.00
12	4								Refusal at 3.6 m bgs	76.00
13–15	4									

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-22

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.65
0–1	0		BH12-22 (0-2)	◆	45	0	60%		SAND AND GRAVEL FILL wet, black	
2–3	1		BH12-22 (2-4)		70	0	60%		grey	80.00
4–5			BH12-22 (4-6)		80	0	100%		SILTY SAND wet, grey	79.00
6–7	2		BH12-22 (6-8)		60	0	100%			
8–9			BH12-22 (8-10)	◆	75	0	100%			78.00
10	3								Refusal at 3.2 m bgs	
11–12										77.00
13	4									
14–15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-23

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.60
0	0								ASPHALT	
1			BH12-23 (0-2)		60	2	85%		SAND AND GRAVEL FILL dry, grey	
2									SILTY SAND FILL dry to moist, black	80.00
3	1		BH12-23 (2-4)	◆	70	2	85%			
4										
5			BH12-23 (4-6)		60	0	60%			79.00
6									CLAY moist, grey	
7	2		BH12-23 (6-8)		65	0	60%			
8										78.00
9			BH12-23 (8-10.5)	◆	40	0	100%			
10	3									
11									Refusal at 3.2 m bgs	
12										77.00
13	4									
14										
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-24

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.70
0	0		-		-	-	-		SAND FILL dry, black	
1			BH12-24 (1-2)	◆	35	0	85%		SILTY SAND FILL dry, brown	
2										80.00
3	1		BH12-24 (2-4)		45	0	85%			
4										
5			BH12-24 (4-6)		60	0	100%		CLAY moist, brown, with some silty sand	
6										79.00
7	2		BH12-24 (6-8)		60	0	100%			
8										
9			BH12-24 (8-10)		70	0	100%		wet	78.00
10	3		BH12-24 (10-11)	◆	60	0	100%			
11									Refusal at 3.3 m bgs	
12										77.00
13	4									
14										
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-25

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.69
0	0								ASPHALT	
1			BH12-25 (0-2)	◆	30	0	90%		SAND AND GRAVEL FILL moist, black	
2									brown	80.00
3	1		BH12-25 (2-4)		0	0	90%			
4									SILTY SAND	
5			BH12-25 (4-6)		500	0	80%		moist, brown	
6										79.00
7	2		BH12-25 (6-8)		600	0	80%		CLAY moist, brown	
8										
9			BH12-25 (8-10)		65	0	100%		SILTY SAND moist, brown, with rock fragments	78.00
10	3									
11			BH12-25 (10-12)				100%			
12										77.00
13	4		BH12-25 (12-14)	◆			50%			
14									Refusal at 4.3 m bgs	
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-25E

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.54
0–1 ft / 0 m		BH12-25E (0-1)	◆			62%		SAND AND SMALL GRAVEL FILL black to grey, loose	
1–2 ft		BH12-25E (1-2)				62%		CLAYEY SILT brown to black, loose	80.00
2–5 ft / 1 m		BH12-25E (2-4)				62%		compact	
5 ft								End of hole at 1.52m bgs	79.00
6–15 ft / 2–4 m									78.00, 77.00, 76.00

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-25N

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.54
1		BH12-25N (0-1)	◆			60%		SAND AND SMALL GRAVEL FILL black, loose	
2								SILTY CLAY brown, dense	80.00
		BH12-25N (1-2)				60%			
3								SAND, SILT AND CLAY orange-brown	
1 / 4		BH12-25N (2-4)				60%		CLAYEY SILT dark grey to black, dense	
5								End of hole at 1.52m bgs	79.00
6									
2 / 7									
8									78.00
9									
10 / 3									
11									77.00
12									
13 / 4									
14									
15									76.00

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-25S

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.54
								ASPHALT	
1		BH12-25S (0-1)				28%		SAND AND SMALL GRAVEL FILL black, loose	
2		BH12-25S (1-2)				28%			80.00
3 / 1		BH12-25S (2-4)				28%		SILTY CLAY brown, compact	
4									
								SAND, SILT, AND GRAVEL brown, loose	
5								End of hole at 1.52m bgs	79.00
6 / 2									
7									
8									78.00
9									
10 / 3									
11									
									77.00
12									
13 / 4									
14									
15									76.00

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-26

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: August 9 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.60
0	0								ASPHALT	
1			BH12-26 (0-1)				52%		SAND AND GRAVEL FILL dry, grey	
			BH12-26 (1-2				52%			
2									SAND black, coarse, no odour	80.00
3	1		BH12-23 (2-4)				52%		SAND, SILT, AND GRAVEL brown, compact	
4									CLAYEY SILT black to dark grey, compact	
5										
6	2								End of hole at 1.52 m bgs	79.00
7										
8										
9										78.00
10	3									
11										
12										77.00
13	4									
14										
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-26

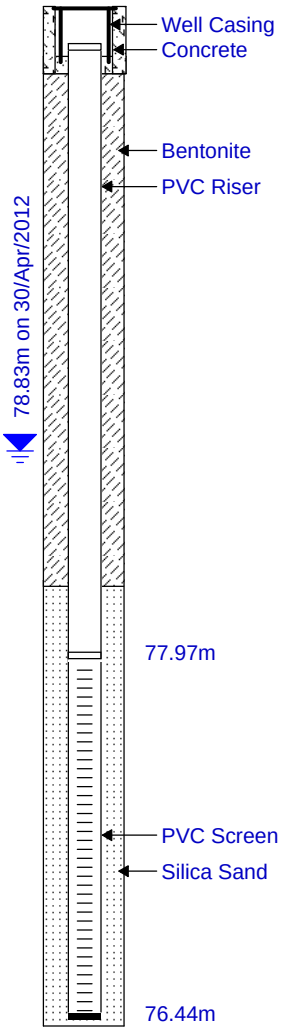
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm
Monitoring Well Diameter: 32 mm

Drilling Company: Downing`
Drilling Equipment: Geoprobe
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.71
0 / 0								ASPHALT	
1		BH12-26 (1-2)		40	0	25%		SAND FILL moist, brown	
2									
3 / 1		BH12-26 (2-4)	◆	45	0	25%			80.00
4									
5		BH12-26 (4-6)		55	0	35%			
6 / 2									79.00
7		BH12-26 (6-8)		45	0	30%		CLAY moist, brown	
8									
9		BH12-26 (8-10)	◆	50	0	-		slight PHC odor	78.00
10 / 3									
11		BH12-26 (10-12)		-	-	-		Note: used HSA for well installation and geoprobe for stratigraphy	
12									77.00
13 / 4		BH12-26 (12-14)		-	-	-			
14									
15								Refusal at 4.3 m bgs using HSA	

Top of Riser Elev.= 80.52 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-27

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 20 April 2012 / July 25 2012
Site Datum: Geodetic

SLE Supervisor: Brian S. / Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing / Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.54
0	0		BH12-27 (0-1)		140	0	100%		ASPHALT	
1			BH12-27 (1-2)		140	0	100%		SAND AND GRAVEL FILL dry, brown/black	
2			BH12-27 (2-4)		210	42	100%		SILTY SAND FILL moist, black, PHC odors	80.00
3	1									
4			BH12-27 (4-6)		165	42	70%		brown/grey	
5									CLAY moist, grey	79.00
6			BH12-27 (6-8)		140	32	70%			
7	2									
8			BH12-27 (8-10)		160	8	40%		SILTY SAND moist, grey	78.00
9										
10	3		BH12-27 (10-11)		150	2	40%			
11									Refusal at 3.4 m bgs	77.00
12										
13	4									
14										
15										76.00

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-27

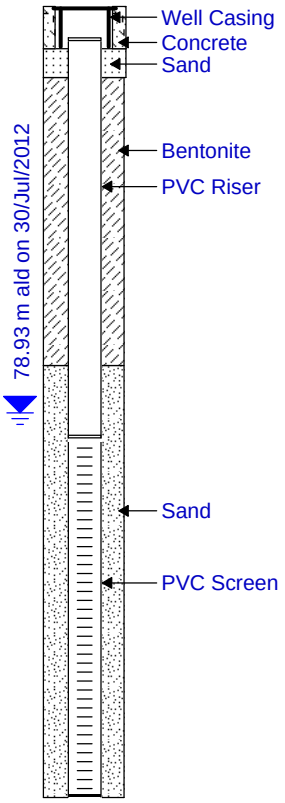
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 25 July 2012
Site Datum: Geodetic

SLE Supervisor: EV
Drilling Method: Direct-Push
Borehole Diameter: 83 mm
Monitoring Well Diameter: 51mm (2")

Drilling Company: Strata
Drilling Equipment: Geoprobe
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.65
0 – 2 ft / 0 – 1 m		BH12-27		-	-	-		refer to BH12-27	
8 – 10 ft / 2 – 3 m		BH12-27 (8-11)		0	21	86%		GRAVELLY CLAY brown, moist, odour at 2.4 mbgs SILTY SAND AND GRAVEL brown, moist, very dense	78.00
11 – 15 ft / 3 – 4 m								Refusal at 3.35m bgs	77.00

Top of Riser Elev.= 80.52 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-28

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 20 April 2012 / 15 July 2012
Site Datum: Geodetic

SLE Supervisor: Brian S. / Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing / Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.53
0	0								CONCRETE	
1			BH12-28 (0-2)		290	160	65%		SAND AND GRAVEL FILL dry, brown	
2									SILTY SAND FILL moist, brown	80.00
3	1		BH12-28 (2-4)	◆	200	34	65%		black staining and PHC odors	
4										
5			BH12-28 (4-6)	◆	160	30	100%		no staining	79.00
6									CLAY moist, brown, no PHC odor	
7	2		BH12-28 (6-8)		160	24	100%			
8									SILTY SAND moist, brown, PHC odors	78.00
9			BH12-28 (8-10)	◆	200	4	100%			
10	3								no odor	
11			BH12-28 (10-12)	◆	180	0	100%			77.00
12										
13	4		BH12-28 (12-13.5)	◆	130	0	100%			
14									Refusal at 4.1 m bgs	
15										76.00

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-29

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 20 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.46
		BH12-29 (0-2)		160	0	65%		ASPHALT	
1								SAND AND GRAVEL FILL dry, brown	
		BH12-29 (2-4)		120	0	65%		SAND FILL dry, brown	80.00
3 / 1									
4		BH12-29 (4-6)	◆	100	0	100%			79.00
6 / 2		BH12-29 (6-8)		110	0	100%		CLAY moist, brown	
8		BH12-29 (8-10)	◆	80	0	100%		SILTY SAND moist, brown	78.00
10 / 3		BH12-29 (10-11.5)		80	0	100%			
11								Refusal at 3.5 m bgs	77.00
13 / 4									76.00
15									

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-30

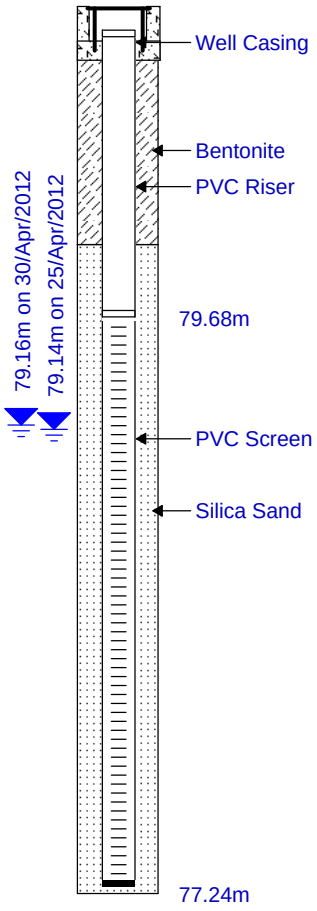
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 17 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: HSA
Borehole Diameter: 250 mm
Monitoring Well Diameter: 50 mm

Drilling Company: Downing`
Drilling Equipment: CME 55 Truckmount
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.93
								CONCRETE	
								Soil Lithology/Sampling not conducted.	
									80.00
1 /									
2 /									
3 / 1									
4 /									
5 /									
6 / 2									79.00
7 /									
8 /									
9 /									
10 / 3									78.00
11 /									
12 /									
13 / 4								Refusal at 3.8 m bgs	77.00
14 /									
15 /									

Top of Riser Elev.= 80.80 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-31

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 17 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.85
0 – 1 / 0		BH12-31 (0-2)		-	-	85%		CONCRETE	
1 – 2								SAND AND GRAVEL FILL wet, grey/brown	
2 – 3 / 1		BH12-31 (2-4)		145	0	85%		SAND dry, brown	80.00
3 – 4								CLAY moist, brown	
4 – 5		BH12-31 (4-6)	◆	135	0	100%		SILTY SAND	
5 – 6 / 2		BH12-31 (6-8)		105	0	100%		some gravel	79.00
6 – 7									
7 – 8		BH12-31 (8-10)		125	0	85%			78.00
8 – 9									
9 – 10 / 3								Refusal at 3.0 m bgs	
10 – 11									
11 – 12									
12 – 13 / 4									77.00
13 – 14									
14 – 15									

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-32

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 17 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.74
0	0								CONCRETE	
1			BH12-32 (0-2)		25	0	100%		SAND AND GRAVEL FILL dry, brown	
2									CLAY moist, dark brown	80.00
3	1		BH12-32 (2-4)		55	0	90%			
4									some gravel	
5			BH12-32 (4-6)	◆	50	0	100%			
6										79.00
7	2		BH12-32 (6-8)	◆	35	0	100%		moist to wet	
8										
9			BH12-32 (8-10)		55	0	100%			78.00
10	3									
11			BH12-32 (10-12)		40	0	100%		SILTY SAND wet, grey/brown, with some gravel	
12										77.00
13	4								Refusal at 3.8 m bgs	
14										
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-33

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 17 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.68
0	0								CONCRETE grey	
1			BH12-33 (0-2)		60	0	60%			
2									SAND AND GRAVEL FILL dry, grey/brown	80.00
3	1		BH12-33 (2-4)		105	0	60%		SILTY SAND dry, brown, with some clay	
4										
5			BH12-33 (4-6)		100	0	100%		moist to wet	79.00
6										
7	2		BH12-33 (6-8)		115	0	100%			
8										
9			BH12-33 (8-10)		90	0	100%			78.00
10	3									
11			BH12-33 (10-12)		90	0	100%			
12									LIMESTONE dry, fractured	77.00
13	4								Refusal at 3.6 m bgs	
14										
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-33E

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.54
0–1	0		BH12-33E (0-1)				48%		CONCRETE	
2–3	1		BH12-33E (1-4				48%		GRAVEL FILL SILTY CLAY dry to moist, brown, compact	80.00
5									End of hole at 1.52m bgs	79.00
	2									78.00
10	3									77.00
13	4									76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-33S

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.54
0–1 ft / 0 m		BH12-33S (0-1)				50%		CONCRETE	
2–3 ft / 1 m		BH12-33S (1-4)				50%		GRAVEL FILL	80.00
								SILTY CLAY dry, brown, compact	
5 ft / 2 m								End of hole at 1.52m bgs	79.00
10 ft / 3 m									78.00
13 ft / 4 m									77.00
15 ft									76.00

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-33W

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.54
		BH12-33W (0-1)				39%		CONCRETE GRAVEL FILL	
2								SILTY CLAY brown	80.00
1		BH12-33W (1-4)				39%			
5								moist	79.00
2		BH12-33W (4-6)				82%			
7								SILT, SAND AND GRAVEL light brown	
8		BH12-33W (6-8)				82%			78.00
3								orange	
10								SILTY GRAVEL TILL grey	
11								End of hole at 3.05m bgs	
12									77.00
4									
15									76.00

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-34

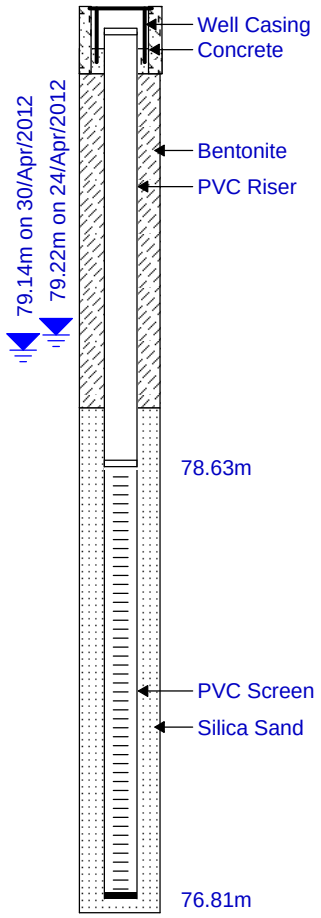
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 17 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: HSA
Borehole Diameter: 250 mm
Monitoring Well Diameter: 50 mm

Drilling Company: Downing`
Drilling Equipment: CME 55 Truckmount
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.59
0 / 0								CONCRETE	
1		BH12-34 (1-2)		70	0	70%		CLAY dry to moist, brown	
2									80.00
3 / 1		BH12-34 (2-4)		65	0	90%			
4								SILTY SAND moist, brown	
5		BH12-34 (4-6)		55	0	75%			79.00
6									
7 / 2		BH12-34 (6-8)		60	0	50%			
8									78.00
9		BH12-34 (8-10)		75	0	40%		wet	
10 / 3									
11		BH12-34 (10-12.5)		-	-	-			77.00
12									
13 / 4								Refusal at 3.8 m bgs	
14									
15									76.00

Top of Riser Elev.= 80.42 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-35

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 19 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.35
0	0		-		-	-	-		CONCRETE grey	
1			BH12-35 (1-2)	◆	90	10	70%		SAND AND GRAVEL FILL dry, grey/brown	80.00
2										
3	1		BH12-35 (2-4)	◆	70	0	70%		CLAY dry to moist, brown	
4										
5			BH12-35 (4-6)		60	0	100%		wet	79.00
6										
7	2		BH12-35 (6-8)		80	0	100%		SILTY SAND moist, brown	
8			BH12-35 (8-8.5)		95	0	100%			78.00
9									Refusal at 2.6 m bgs	
10	3									
11										77.00
12										
13	4									
14										76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-36

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 18 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.33
0	0								CONCRETE	
1			BH12-36 (0-2)		150	0	65%		SAND AND GRAVEL FILL dry, brown	80.00
2										
3	1		BH12-36 (2-4)	◆	125	0	65%		CLAY moist, brown	
4										79.00
5			BH12-36 (4-6)		130	0	100%			
6									SILTY SAND moist to wet, brown	
7	2		BH12-36 (6-8)	◆	150	0	100%			78.00
8										
9			BH12-36 (8-10)		120	0	65%			
10	3									
			BH12-36 (10-11)		115	0	65%			
11									Refusal at 3.3 m bgs	77.00
12										
13	4									
14										76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-37

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 18 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.53
0–1 / 0		BH12-37 (0-2)		160	0	65%		CONCRETE	
								SAND AND GRAVEL FILL dry, brown	80.00
2–3 / 1		BH12-37 (2-3)	◆	100	0	65%		SAND FILL moist, brown	
		BH12-37 (3-4)		100	0	65%		SILTY SAND moist, dark brown	
4–5		BH12-37 (4-6)	◆	110	0	100%		with some clay	79.00
6–7 / 2		BH12-37 (6-8)		115	0	100%			
8–9		BH12-37 (8-10)		85	0	100%			78.00
10–11 / 3		BH12-37 (10-12)		90	0	100%			77.00
12–13 / 4								Refusal at 3.7 m bgs	
14–15									76.00

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-38

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 18 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.71
0	0								CONCRETE	
1			BH12-38 (0-2)		145	0	85%		SAND AND GRAVEL FILL dry, grey/brown	
2			BH12-38 (2-3.5)		125	0	85%		SAND FILL moist to wet, brown	80.00
3	1		BH12-38 (3.5-4)	◆	175	0	85%		SILTY SAND moist, brown, black staining	
4										
5			BH12-38 (4-6)		115	0	100%			
6										79.00
7	2		BH12-38 (6-8)		100	0	100%			
8									some clay	
9			BH12-38 (8-10)		110	0	100%			78.00
10	3									
11			BH12-38 (10-12)		120	0	100%			
12			BH12-38 (12-13)	◆	125	0	100%		wet 25 mm of black fractured rock	77.00
13	4								LIMESTONE dry, fractured	
14									Refusal at 3.9 m bgs	
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-39

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 17 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.36
0	0								CONCRETE	
1			BH12-39 (0-2)		145	0	70%			80.00
									SAND AND GRAVEL FILL wet, grey/brown	
2										
3	1		BH12-39 (2-4)		115	0	70%		SAND FILL dry, brown	
4									CLAY dry, dark brown	
5			BH12-39 (4-6)	◆	155	0	100%		moist, brown	79.00
6	2									
7			BH12-39 (6-8)		150	0	100%			
8										78.00
9			BH12-39 (8-10)	◆	105	0	100%		SILTY SAND wet to moist, brown, with some gravel	
10	3									
11			BH12-39 (10-12)		70	0	100%			77.00
12									Refusal at 3.6 m bgs	
13	4									
14										76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-40

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 17 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.32
0–1	0		BH12-40 (0-2)		90	0	60%		CONCRETE	80.00
2–3	1		BH12-40 (2-4)	◆	125	0	60%		SAND AND GRAVEL FILL wet, grey/brown	
4									SAND FILL dry to moist, brown	79.00
5			BH12-40 (4-6)		65	0	100%		CLAY dry to moist, brown	
6–7	2		BH12-40 (6-8)	◆	165	0	100%		SILTY SAND moist to wet, brown, with some gravel	78.00
8–9			BH12-40 (8-10)		85	0	100%			
10–11	3		BH12-40 (10-12)		125	0	100%		wet	77.00
12									Refusal at 3.6 m bgs	
13–14	4									76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-41

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 17 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.25
1		BH12-41 (0-2)		80	0	65%		CONCRETE grey	80.00
2								SAND AND GRAVEL FILL dry, grey	
3 / 1		BH12-41 (2-4)	◆	95	0	65%		CLAY dry to moist, brown	
4									79.00
5		BH12-41 (4-6)		95	0	100%			
6									
7 / 2		BH12-41 (6-8)	◆	70	0	100%		moist, grey, strong PHC odors	
8								SILTY SAND wet, grey	78.00
9		BH12-41 (8-10)		85	0	55%		33 cm of dry grey rock at 2.4 m bgs	
10 / 3									
11		BH12-41 (10-11.5)		100	0	55%		wet, brown	77.00
12								Refusal at 3.5 m bgs	
13 / 4									
14									76.00
15									

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-42

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 18 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.25
0	0		-		-	-	-		CONCRETE	
1			BH12-42 (1-2)	◆	240	2	65%		SAND AND GRAVEL FILL dry, grey/brown	80.00
2			BH12-42 (2-4)		115	0	65%		SILTY SAND moist, grey/brown	
3	1									
4			BH12-42 (4-6)		100	0	100%			79.00
5										
6			BH12-42 (6-8)		90	0	100%		grey	
7	2									78.00
8			BH12-42 (8-10.5)	◆	85	0	85%		brown	
9										
10	3								LIMESTONE grey, fractured	77.00
11									Refusal at 3.2 m bgs	
12										
13	4									
14										76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-43

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 18 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.07
0	0		-		-	-	-		CONCRETE grey	
1			BH12-43 (1-2)	◆	65	0	70%		SAND AND GRAVEL FILL dry, grey/brown	
2			BH12-43 (2-4)		45	0	70%		CLAY moist, grey	
3	1									79.00
4			BH12-43 (4-6)		45	0	100%			
5										
6			BH12-43 (6-8)		40	0	100%		SILTY SAND moist, grey	
7	2									78.00
8			BH12-43 (8-9.5)		40	0	70%		brown	
9										
10	3								Refusal at 2.9 m bgs	77.00
11										
12										
13	4									76.00
14										
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-44

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 18 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.15
1		BH12-44 (0-2)		110	2	75%		CONCRETE	
2								SAND AND GRAVEL FILL dry, brown	
3 / 1		BH12-44 (2-4)		45	0	75%		CLAY moist, dark grey	
4									79.00
5		BH12-44 (4-6)		75	0	100%			
6									
7 / 2		BH12-44 (6-8)	◆	115	0	100%			78.00
8									
9		BH12-44 (8-10)		100	0	80%			
10 / 3								SILTY SAND moist to wet, brown	
11		BH12-44 (10-12)	◆	90	0	80%			77.00
12								LIMESTONE wet, grey, fractured	
13 / 4								Refusal at 3.6 m bgs	
14									76.00
15									

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-45

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 18 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.42
0–1	0		BH12-45 (0-2)		115	0	65%		CONCRETE grey	
1–2									SAND AND GRAVEL FILL wet, grey/brown	80.00
2–3	1		BH12-45 (2-4)	◆	85	0	65%		SAND FILL moist, brown 50 mm of black staining at 0.8 m bgs, slight PHC odor	
4–5			BH12-45 (4-6)	◆	130	0	100%		CLAY moist, brown	79.00
6–7	2		BH12-45 (6-8)		110	0	100%		SILTY SAND moist to wet, brown	
8–9			BH12-45 (8-10)		65	0	85%			78.00
10–11	3		BH12-45 (10-12)		135	0	85%			77.00
12			BH12-45 (12-13)		75	0	100%			
13–14	4								Refusal at 3.9 m bgs	76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-46

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 18 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.46
0–1	0		BH12-46 (0-2)		185	0	65%		CONCRETE	
									SAND AND GRAVEL FILL dry, grey/brown	80.00
2–3	1		BH12-46 (2-4)	◆	165	0	65%		SAND moist, brown, black staining, PHC odors	
4–5			BH12-46 (4-6)		110	0	100%		CLAY moist, grey strong PHC odors	79.00
6–7	2		BH12-46 (6-8)		85	0	100%			
8–9			BH12-46 (8-10)	◆	155	0	100%		SILTY SAND moist, brown	78.00
10–11	3		BH12-46 (10-12)		145	0	100%			77.00
12–13	4		BH12-46 (12-14)		100	0	65%		LIMESTONE wet, black, fractured	
14									Refusal at 4.2 m bgs	76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-47

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 17 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.24
0–1	0		BH12-47 (0-2)		70	0	80%		CONCRETE grey SAND AND GRAVEL FILL dry, brown	80.00
2–3	1		BH12-47 (2-4)	◆	40	6	80%		SAND FILL dry, brown SILTY SAND FILL moist, dark brown	
4–5			BH12-47 (4-6)	◆	0	0	100%		CLAY moist, brown	79.00
6–7	2		BH12-47 (6-8)		0	0	100%		wet, some gravel	78.00
8–9			BH12-47 (8-10)		0	0	100%			
10–11	3		BH12-47 (10-12)		0	0	100%		GRAVELLY SAND moist, grey	77.00
12			BH12-47 (12-12.5)		0	0	100%			
13–14	4								Refusal at 3.8 m bgs	76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-48

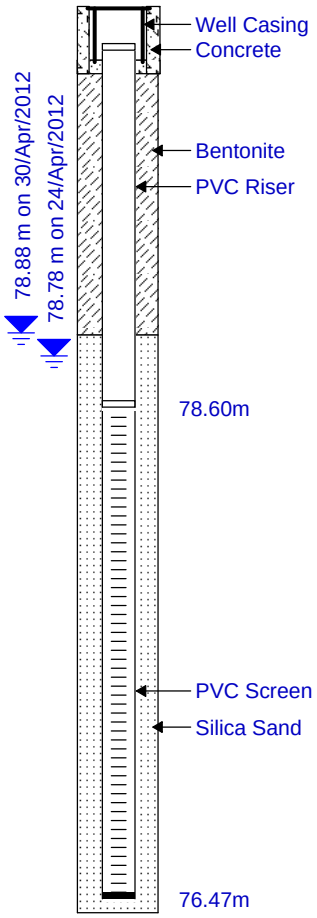
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 17 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: HSA
Borehole Diameter: 250 mm
Monitoring Well Diameter: 50 mm

Drilling Company: Downing`
Drilling Equipment: CME 55 Truckmount
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.26
0 / 0								CONCRETE	
1	7 10 15	BH12-48 (1-2)		45	0	35%		SAND AND GRAVEL FILL grey/light brown	80.00
2									
3 / 1	10 9 9 9	BH12-48 (2-4)		40	0	45%		CLAY dry, brown, with dark staining	
4									
5	6 5 5 6	BH12-48 (4-6)	◆	95	0	60%		moist	79.00
6									
7 / 2	5 7 10 13	BH12-48 (6-8)		40	0	80%		firm, with rock fragments	78.00
8									
9	3 9 17 50 for 25 mm	BH12-48 (8-10)	◆	40	0	35%		SILTY SAND moist	
10 / 3									
11	50 for 127 mm	BH12-48 (10-12)		35	0	5%		LIMESTONE	77.00
12	50 for 127 mm	BH12-48 (12-14)		-	-	5%			
13 / 4								Refusal at 3.8 m bgs	
14									76.00
15									

Top of Riser Elev.= 80.07 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-49

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 17 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.23
0	0								CONCRETE grey	
1			-		-	-	-		SAND AND GRAVEL FILL dry, grey	80.00
			BH12-49 (1-2)	◆	0	0	60%			
2									CLAY moist, dark brown	
3	1		BH12-49 (2-4)		0	0	60%			
4										79.00
5			BH12-49 (4-6)		0	0	100%			
6										
7	2		BH12-49 (6-8)		0	0	100%			78.00
8										
9			BH12-49 (8-10)	◆	0	0	60%			
10	3								LIMESTONE grey, fractured	
11										77.00
									Refusal at 3.0 m bgs	
12										
13	4									
14										76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-50

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 17 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.28
0–1	0		BH12-50 (0-2)		70	0	100%		CONCRETE grey SAND AND GRAVEL FILL dry, brown	80.00
2–3	1		BH12-50 (2-4)	◆	100	0	65%		CLAYEY SAND FILL moist, brown	
4–5			BH12-50 (4-6)		95	0	100%		CLAY moist, dark brown, with some silt	79.00
6–7	2		BH12-50 (6-8)		85	0	100%			78.00
8–9			BH12-50 (8-10)	◆	115	0	100%			
10–11	3		BH12-50 (10-12)		100	0	100%		wet	77.00
12–13	4								Refusal at 3.5 m bgs	76.00
14–15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-51

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 17 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: HSA
Borehole Diameter: 250 mm
Monitoring Well Diameter: 50 mm

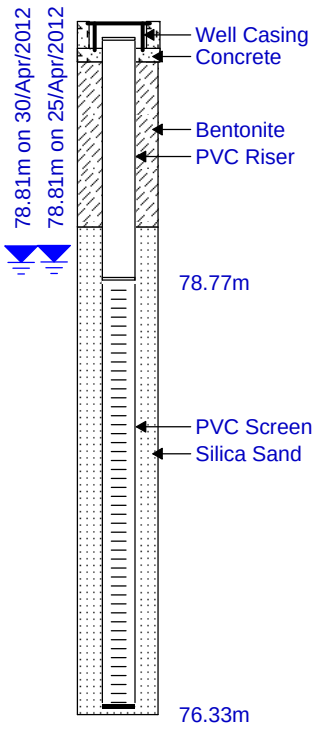
Drilling Company: Downing`
Drilling Equipment: CME 55 Truckmount
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.17
								CONCRETE	
								Soil Lithology/Sampling not conducted.	
								Refusal at 3.9 m bgs	

ft m
0 0
1
2
3 1
4
5
6 2
7
8
9
10 3
11
12
13 4
14
15
16 5
17
18
19
20 6

79.00
78.00
77.00
76.00
75.00

Top of Riser Elev. = 80.05 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-52

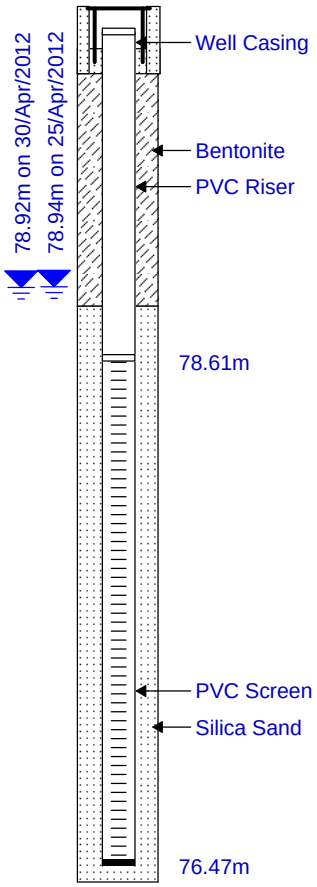
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 17 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: HSA
Borehole Diameter: 250 mm
Monitoring Well Diameter: 50 mm

Drilling Company: Downing`
Drilling Equipment: CME 55 Truckmount
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.11
								CONCRETE	
								Soil Lithology/Sampling not conducted.	
								Refusal at 3.7 m bgs	

Top of Riser Elev.= 79.95 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-53

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 18 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.32
0	0		-		-	-	-		CONCRETE	
1			BH12-53 (1-2)	◆	165	0	75%		SAND AND GRAVEL FILL dry, grey/brown	80.00
2									CLAY moist, dark grey	
3	1		BH12-53 (2-4)		220	0	75%			
4										79.00
5			BH12-53 (4-6)		165	0	100%			
6										
7	2		BH12-53 (6-8)	◆	145	0	100%		SILTY SAND moist, grey	
8										78.00
9			BH12-53 (8-10)	◆	140	0	70%		25 mm of pink staining at 2.5 m bgs wet 275 mm of black staining at 3.0 m bgs	
10	3									
11			BH12-53 (10-12)		190	2	70%			77.00
12										
13	4		BH12-53 (12-14)		180	0	90%			
14										76.00
15									Refusal at 4.4 m bgs	

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-54

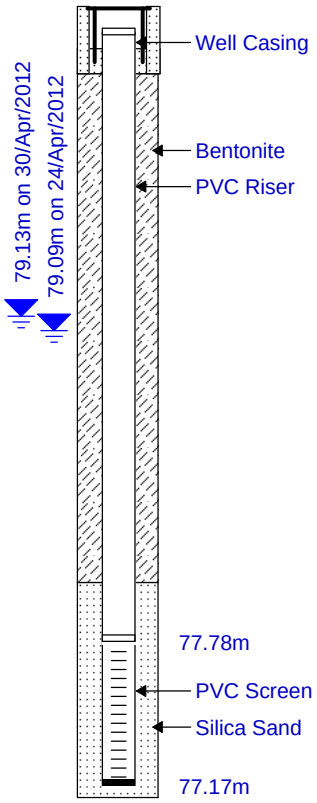
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 20 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 250 mm
Monitoring Well Diameter: 32 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.47
								CONCRETE	
0–1 / 0	-	BH12-54 (0-2)		140	0	100%		SAND AND GRAVEL FILL dry, brown	
								SILTY SAND FILL dry, brown	80.00
2–3 / 1	-	BH12-54 (2-4)		135	0	100%		moist	
4–5	-	BH12-54 (4-6)		130	0	100%			79.00
6–7 / 2	-	BH12-54 (6-8)		155	8	100%		CLAY moist, brown	
8–9	-	BH12-54 (8-10)	◆	300	290	100%		SILTY SAND moist, brown, solvent odors	78.00
10 / 3	-	BH12-54 (10-11)		300	270	100%			
11–12								Refusal at 3.4 m bgs	77.00
13 / 4									
14–15									76.00

Top of Riser Elev.= 80.40 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-54B

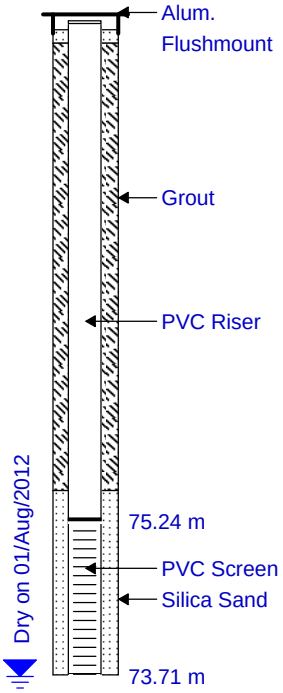
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 31 July 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.43
0–1 ft / 0 m	-	BH/MW12-54B (0-1)		0	0	100%		CONCRETE	
1–3 ft / 0–1 m	-	BH/MW12-54B (1-3.5)		0	2	100%		SAND FILL dry, brown, some gravel and clay	
3–6 ft / 1–2 m	-	BH/MW12-54B (3.5-6)		-	-	100%		SANDY CLAY dry to moist, brown	79.00
6–13 ft / 2–4 m	-	-		-	-	-		Soil Lithology/Sampling not conducted.	78.00 77.00
13–20 ft / 4–6 m	-	-		-	-	-		LIMESTONE	76.00 75.00
20–35 ft / 6–10 m								End of Borehole at 6.55 m bgs.	74.00 73.00 72.00 71.00 70.00

Top of Riser Elev.= 80.33 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-55

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 27 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.25
0	0								CONCRETE	
1			BH12-55 (0-2)	◆	50	0	85%		SAND AND GRAVEL FILL dry, brown	80.00
2									SILTY SAND FILL moist, brown	
3	1		BH12-55 (2-4)		60	0	85%			
4										79.00
5			BH12-55 (4-6)		115	0	100%			
6										
7	2		BH12-55 (6-7)	◆	120	0	100%		CLAY moist, brown	
8									Refusal at 2.2 m bgs	78.00
9										
10	3									
11										77.00
12										
13	4									
14										76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-56

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 23 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.25
0	0								CONCRETE	
1			BH12-56 (0-2)		30	0	65%		SAND AND GRAVEL FILL dry, brown	80.00
2									SILTY SAND FILL dry, brown	
3	1		BH12-56 (2-4)	◆	35	0	65%			
4										79.00
5			BH12-56 (4-6)		35	0	100%			
6										
7	2		BH12-56 (6-8)		40	0	100%		CLAY moist, brown	78.00
8										
9			BH12-56 (8-10)		50	0	100%		SILTY SAND moist, brown	
10	3									
			BH12-56 (10-11)	◆	60	0	100%			77.00
11									Refusal at 3.4 m bgs	
12										
13	4									
14										76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-57

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 24 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.25
0	0								CONCRETE	
1			BH12-57 (0-2)	♦	75	0	40%		SAND AND GRAVEL FILL dry, brown	80.00
2									SILTY SAND FILL dry, brown	
3	1		BH12-57 (2-4)		25	0	40%			
4									NO RECOVERY stone jammed in tip	79.00
5			BH12-57 (4-6)		-	-	0%			
6										
7	2		BH12-57 (6-8)		-	-	0%			78.00
8									CLAY moist, brown	
9			BH12-57 (8-10)	♦	180	0	100%		SILTY SAND moist, brown	
10	3									
11			BH12-57 (10-12)		115	0	100%			77.00
12										
13			BH12-57 (12-13)		110	0	60%			
	4								Refusal at 4.0 m bgs	
14										76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

♦ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-58

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 23 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.25
0	0								CONCRETE	
1			BH12-58 (0-2)		10	0	65%		SAND AND GRAVEL FILL dry, brown	80.00
2			BH12-58 (2-3)	◆	15	0	65%		SILTY SAND FILL dry, brown, 480 mm of black staining at 0.45 bgs	
3	1		BH12-58 (3-4)		10	0	65%			
4			BH12-58 (4-6)		0	0	100%			79.00
5										
6			BH12-58 (6-8)		0	0	100%		CLAY moist, brown	
7	2									78.00
8			BH12-58 (8-10)		30	0	100%			
9									SILTY SAND moist, brown	
10	3		BH12-58 (10-12)		60	0	100%			77.00
11										
12			BH12-58 (12-13)	◆	145	0	85%		wet	
13	4								Refusal at 3.9 m bgs	
14										76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-59

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 23 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.25
0	0								CONCRETE	
1			BH12-59 (0-2)		0	0	80%		SAND AND GRAVEL FILL dry, brown	80.00
2									SILTY SAND FILL moist, brown	
3	1		BH12-59 (2-4)		25	0	80%			
4										79.00
5			BH12-59 (4-6)		25	0	100%			
6										
7	2		BH12-59 (6-8)		20	0	100%		CLAY moist, brown	78.00
8										
9			BH12-59 (8-10)		55	0	100%		SILTY SAND moist, brown	
10	3									
11			BH12-59 (10-12)		70	0	100%			77.00
12									Refusal at 3.6 m bgs	
13	4									
14										76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-60

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 27 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.26
								CONCRETE	
1		BH12-60 (0-2)		50	0	85%		SAND AND GRAVEL FILL dry, brown	80.00
2								SILTY SAND FILL moist, brown	
3 / 1		BH12-60 (2-4)		50	0	85%			
4									79.00
5		BH12-60 (4-6)		70	0	100%			
6								CLAY moist, brown	
7 / 2		BH12-60 (6-8)	◆	65	0	100%			78.00
8									
9		BH12-60 (8-10)	◆	150	10	100%		SILTY SAND moist, brown, PHC odors	
10 / 3									
		BH12-60 (10-11)		175	2	100%			77.00
11								Refusal at 3.4 m bgs	
12									
13 / 4									
14									76.00
15									

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-61

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 27 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.26
0	0								CONCRETE	
1			BH12-61 (0-2)		50	0	85%		SAND AND GRAVEL FILL dry, brown	80.00
2										
3	1		BH12-61 (2-4)		65	0	85%		SILTY SAND FILL moist, grey, with some clay	
4										
5			BH12-61 (4-6)		55	0	100%			79.00
6										
7	2		BH12-61 (6-8)		55	0	100%		CLAY moist, brown	78.00
8										
9			BH12-61 (8-10)		55	6	100%		solvent odors	
10	3		BH12-61 (10-11)	◆	70	12	100%		SILTY SAND moist, brown, solvent odors	77.00
11									Refusal at 3.4 m bgs	
12										
13	4									
14										76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-61

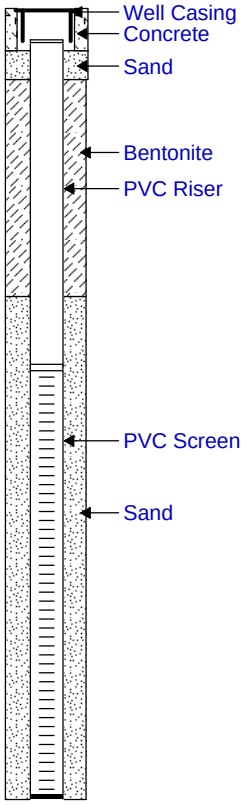
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 27 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm
Monitoring Well Diameter: 51mm (2")

Drilling Company: Strata
Drilling Equipment: Geoprobe
Well Casing:
Well Screen:
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.71
0–1 / 0		BH12-61 (0-2)		0	1	74%		ASPHALT SAND AND GRAVEL moist, brown SILTY CLAY moist, dark brown, trace rocks	
1–2 / 0–1		BH12-61 (2-4)		0	1	74%		orange to brown, trace rocks	80.00
2–3 / 1		BH12-61 (4-6)		0	1	100%		moist, light brown to grey, dense	79.00
3–4 / 1–2		BH12-104 (6-8)		0	14	100%		soft	
3 / 2		BH12-61 (8-9)		0	29	87%		dark grey, extreme odour	78.00
3–4 / 2		BH12-61 (9-10)		0	17	87%		light grey to olive, trong odour	
4 / 2–3								Refusal at 3.35m bgs	77.00

Top of Riser Elev.= 80.52 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-61A

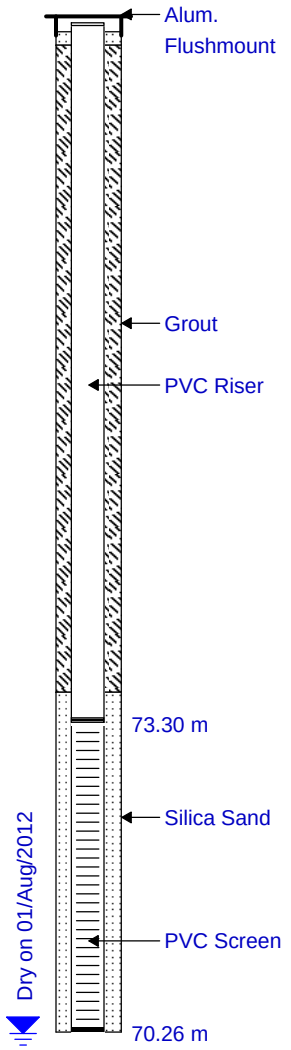
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 31 July 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.44
0–13 / 0–4	-	-		-	-	-		Soil Lithology/Sampling not conducted.	79.00 – 78.00 – 77.00
13–33 / 4–10	-	-		-	-	-		LIMESTONE	76.00 – 75.00 – 74.00 – 73.00 – 72.00 – 71.00
33 / 10								End of Borehole at 10.1 m bgs.	70.00

Top of Riser Elev.= 80.34 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-61B

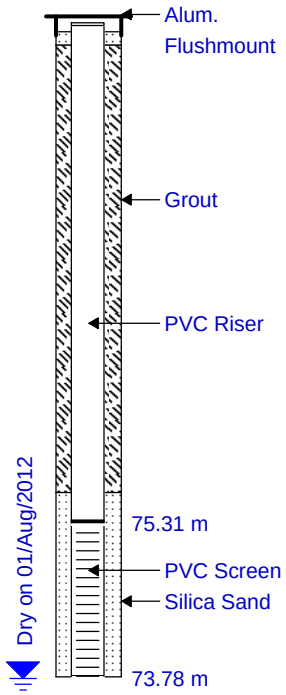
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 31 July 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.40
0–4 / 0–1	-	-		-	-	-		Soil Lithology/Sampling not conducted.	79.00
4–8 / 1–2	-	-		-	-	-			78.00
8–12 / 2–3									77.00
12–16 / 3–4									76.00
16–20 / 4–5	-	-		-	-	-		LIMESTONE	75.00
20–24 / 5–6									74.00
24–28 / 6–7								End of Borehole at 6.55 m bgs.	73.00
28–32 / 7–8									72.00
32–35 / 8–10									71.00
									70.00

Top of Riser Elev.= 80.24 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-62

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 23 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.26
0	0								CONCRETE	
1			BH12-62 (0-2)	♦	40	0	40%		SAND AND GRAVEL FILL dry, brown 25 mm of red brick	80.00
2										
3	1		BH12-62 (2-4)	♦	80	0	40%		SILTY SAND FILL moist, brown	
4										
5			BH12-62 (4-6)		60	0	100%			79.00
6										
7	2		BH12-62 (6-8)		65	12	100%		CLAY moist, brown solvent odors	78.00
8										
9			BH12-62 (8-10)	♦	115	48	100%		SILTY SAND moist, brown, solvent odors	
10	3									
11			BH12-62 (10-12)		100	40	100%			77.00
12									Refusal at 3.6 m bgs	
13	4									
14										76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

♦ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-63

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 23 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.26
0	0								CONCRETE	
1			BH12-63 (1-2)		50	0	50%		SILTY SAND FILL dry, brown	80.00
2										
3	1		BH12-63 (2-4)		35	0	50%		moist, dark brown	
4										79.00
5			BH12-63 (4-6)		25	0	100%			
6										
7	2		BH12-63 (6-8)		25	0	100%		CLAY moist, brown	78.00
8										
9			BH12-63 (8-10)		45	0	100%		SILTY SAND moist, brown	
10	3									
11			BH12-63 (10-12)		35	0	100%			77.00
12										
13			BH12-63 (12-13)		40	0	100%			
	4								Refusal at 4.0 m bgs	
14										76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-64

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 23 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	0.00
0	0								CONCRETE	
1			BH12-64 (1-2)		60	0	40%		SAND AND GRAVEL FILL dry, brown	
2									SILTY SAND FILL	
3	1		BH12-64 (2-4)		60	0	40%		dry, brown	-1.00
4										
5			BH12-64 (4-6)		68	0	100%		moist	
6										
7	2		BH12-64 (6-8)		88	0	100%		CLAY moist, brown	-2.00
8										
9			BH12-64 (8-10)		80	0	100%		SILTY SAND moist, brown	
10	3									-3.00
11			BH12-64 (10-12)		70	0	100%		wet	
12										
13	4								Refusal at 3.9 m bgs	-4.00
14										
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-65

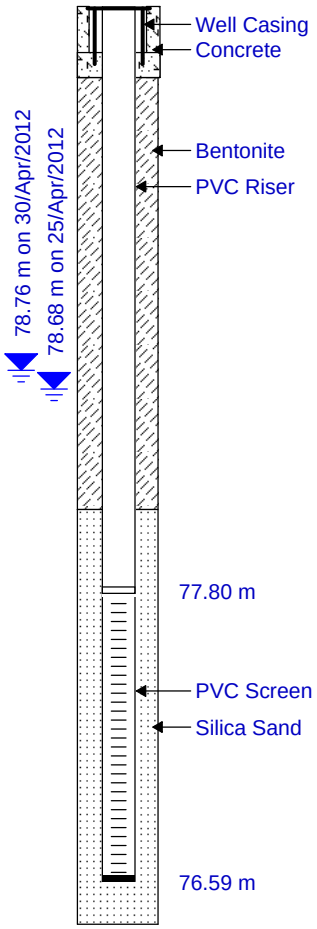
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 20 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm
Monitoring Well Diameter: 32 mm

Drilling Company: Downing`
Drilling Equipment: Geoprobe
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.30
0								TOPSOIL	
1		BH12-65 (0-2)		170	0	55%		SAND AND GRAVEL FILL dry, brown	80.00
2								SILTY SAND FILL dry, brown	
3 – 1		BH12-65 (2-4)		180	0	55%			
4									
5		BH12-65 (4-6)	◆	290	88	100%		wet	79.00
6									
7 – 2		BH12-65(6-8)	◆	130	0	100%		CLAY moist, brown	
8									78.00
9		BH12-65 (8-10)		115	0	100%			
10 – 3								SILTY SAND moist to wet, brown	
11		BH12-65 (10-11)		145	0	100%			77.00
12		BH12-65 (12-13)		125	0	100%			
13 – 4								Refusal at 3.9 m bgs	
14									76.00
15									

Top of Riser Elev. = 80.30 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-66

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 24 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.38
								CONCRETE	
1		BH12-66 (0-2)	◆	50	0	35%		SAND AND GRAVEL FILL dry, brown	80.00
2		BH12-66 (2-4)		35	0	35%		SILTY SAND FILL moist, brown	
3 / 1									
4		BH12-66 (4-5)	◆	40	0	50%		CLAY moist, brown	79.00
5		BH12-66 (5-6)		45	0	50%			
6								SILTY SAND moist, brown	
7 / 2		BH12-66 (6-8)		45	0	100%			
8									78.00
		BH12-66 (8-9)		60	0	100%			
9								Refusal at 2.7 m bgs	
10 / 3									
11									77.00
12									
13 / 4									
14									76.00
15									

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-67

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 24 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.38
0	0								CONCRETE	
1			BH12-67 (0-2)		30	0	65%		SAND AND GRAVEL FILL dry, brown	80.00
2										
3	1		BH12-67 (2-4)	◆	35	0	65%		SILTY SAND FILL moist, dark brown/black	
4										
5			BH12-67 (4-6.5)		60	0	100%			79.00
6									CLAY moist, brown	
7	2		BH12-67 (6.5-7.5)	◆	70	0	80%			
			BH12-67 (7.5-8)				100%		SILTY SAND moist, brown	
8									Refusal at 2.4 m bgs	78.00
9										
10	3									
11										77.00
12										
13	4									
14										76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-68

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 24 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.38
0 / 0		BH12-68 (0-2)		30	0	45%		CONCRETE SAND AND GRAVEL FILL dry, brown	80.00
2 / 1		BH12-68 (2-4)		40	0	45%		SILTY SAND moist, dark brown/black	
4 / 1		BH12-68 (4-6)		65	0	100%			79.00
6 / 2		BH12-68 (6-8)	◆	60	0	100%		CLAY moist, brown, with some sand SILTY SAND moist, brown	78.00
8 / 2		BH12-68 (8-10)	◆	125	0	100%			
10 / 3								Refusal at 3.0 m bgs	77.00
12 / 4									76.00
16 / 5									75.00
18 / 6									
20									

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-69

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 24 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.38
0	0								CONCRETE	
1			BH12-69 (0-2)	◆	30	0	65%		SAND AND GRAVEL FILL dry, brown	80.00
2									SILTY SAND FILL dry, brown	
3	1		BH12-69 (2-4)		40	0	65%		CLAY moist, brown	
4										
5			BH12-69 (4-6)		60	0	80%		SILTY SAND moist, brown/grey	79.00
6										
7	2		BH12-69 (6-7)	◆	25	0	80%			
8									Refusal at 2.2 m bgs	78.00
9										
10	3									
11										77.00
12										
13	4									
14										76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-70

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 24 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.38
0	0								CONCRETE	
1			BH12-70 (0-2)		-	-	0%		NO RECOVERY	80.00
2										
3	1		BH12-70 (2-4)		-	-	0%			
4										
5			BH12-70 (4-6)		-	-	0%			79.00
6										
7	2		BH12-70 (6-8)		-	-	0%			
8										78.00
9			BH12-70 (8-10)		50	0	40%		SILTY SAND wet, brown	
10	3		BH12-70 (10-12)	◆	50	0	40%			
11									Refusal at 3.4 m bgs	77.00
12										
13	4									
14										76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-71

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 24 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.38
0	0								CONCRETE	
1			BH12-71 (0-2)		70	0	25%		SAND AND GRAVEL FILL dry, brown	80.00
2										
3	1		BH12-71 (2-4)	◆	85	0	25%		SILTY SAND FILL moist, dark brown/black	
4										
5			BH12-71 (4-6)		35	0	100%		brown, very little clay	79.00
6										
7	2		BH12-71 (6-7)		30	0	100%			
			BH12-71 (7-8)	◆	30	0	100%		CLAY moist, brown	78.00
8										
9			BH12-71 (8-10)		0	0	100%		SILTY SAND moist to wet, brown	
10	3									
11			BH12-71 (10-12)		5	0	100%			77.00
12									Refusal at 3.6 m bgs	
13	4									
14										76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-71E

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 25 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.54
								CONCRETE	
1		BH12-71E (0-1)				60%		SAND AND GRAVEL FILL dry, light brown	
2								SILT, SAND, AND CLAY FILL moist, grey	80.00
3 / 1		BH12-71E (1-2)	◆			60%		SILTY SAND FILL moist, dark brown/black	
4								SILTY CLAY moist, dark grey, brown	
5		BH12-71E (2-3)				60%			79.00
6 / 2								End of hole at 1.67m bgs	
7									
8									78.00
9									
10 / 3									
11									77.00
12									
13 / 4									
14									
15									76.00

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-71N

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 25 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.54
								CONCRETE	
1		BH12-71N (0-2)				38%		SAND AND GRAVEL FILL dry, light brown	80.00
2									
3 / 1		BH12-71N (2-3)	◆			38%		SILTY SAND FILL moist, dark brown/black	
4		BH12-71N (3-4)				38%		orange brown medium brown	
5									79.00
6 / 2								End of hole at 1.67m bgs	
7									
8									78.00
9									
10 / 3									
11									77.00
12									
13 / 4									
14									
15									76.00

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-71W

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 25 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.54
								CONCRETE	
1		BH12-71W (0-1)				27%		SAND AND GRAVEL FILL dry, brown	
2		BH12-71W (1-2)	◆			27%		SAND AND SILT FILL moist, brown	80.00
3 / 1									
4		BH12-71W (2-4)				27%		CLAY moist, dark brown	
5									79.00
6								End of hole at 1.67m bgs	
7 / 2									
8									78.00
9									
10 / 3									
11									77.00
12									
13 / 4									
14									
15									76.00

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-72

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 24 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.38
0	0								CONCRETE	
1			BH12-72 (0-2)		55	0	65%		SAND AND GRAVEL FILL dry, brown	80.00
2									SILTY SAND FILL moist, dark brown/black	
3	1		BH12-72 (2-4)		75	0	65%			
4										
5			BH12-72 (4-6)	◆	45	0	100%			79.00
6									CLAY moist, brown	
7	2		BH12-72 (6-8)	◆	40	0	100%		SILTY SAND moist, brown	
8			BH12-72 (8-9)	◆	50	0	100%			78.00
9									Refusal at 2.6 m bgs	
10	3									
11										77.00
12										
13	4									
14										76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-73

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 24 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.38
0								CONCRETE	
1		BH12-73 (0-2)		60	0	65%		SAND FILL dry to moist, brown	80.00
2									
3 / 1		BH12-73 (2-4)	◆	75	0	65%		SILTY SAND FILL moist, dark brown/black	
4		BH12-73 (4-6)		40	0	100%			79.00
5									
6 / 2		BH12-73 (6-7)		40	0	100%		CLAY moist, brown	
7		BH12-73 (7-8)		55	0	100%		SILTY SAND moist, brown	
8									78.00
9		BH12-73 (8-10)		60	0	100%			
10 / 3									
11		BH12-73 (10-12)	◆	85	0	100%		grey	77.00
12									
13 / 4		BH12-73 (12-14)		20	0	40%			
14								Refusal at 4.3 m bgs	76.00
15									

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-74

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 27 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.38
0–1	0		BH12-74 (0-2)	◆	50	0	50%		CONCRETE grey SAND AND GRAVEL FILL dry, brown	80.00
2–3	1		BH12-74 (2-4)		40	0	50%		SILTY SAND moist, brown	
4–5			BH12-74 (4-6)		100	0	100%		wet	79.00
6–7	2		BH12-74 (6-8)	◆	75	0	100%			78.00
8–15	3–4								Refusal at 2.4 m bgs	77.00 76.00

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-75

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 24 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.38
0	0								CONCRETE	
1			BH12-75 (0-2)		60	0	20%		SAND AND GRAVEL FILL dry, brown	80.00
2									SILTYSAND FILL moist, brown	
3	1		BH12-75 (2-4)		55	0	20%			
4										
5			BH12-75 (4-6)		30	0	50%		CLAY moist, brown	79.00
6									SILTY SAND wet, brown	
7	2		BH12-75 (6-8)		30	0	100%		moist	
8										78.00
9			BH12-75 (8-10)	◆	25	0	100%			
10	3								Refusal at 3.1 m bgs	
11										77.00
12										
13	4									
14										76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-76

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 19 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.24
0	0								ASPHALT	
1			BH12-76 (0-2)	◆	105	0	85%		SAND AND GRAVEL FILL dry, brown	80.00
2									SILTY SAND FILL dry, dark brown	
3	1		BH12-76 (2-4)		115	0	85%			
4										79.00
5			BH12-76 (4-6)		85	0	100%			
6									CLAY moist, brown	
7	2		BH12-76 (6-8)		75	0	100%			78.00
8										
9			BH12-76 (8-10)		120	0	100%			
10	3								wet	
11			BH12-76 (10-11)	◆	100	0	100%			77.00
12									Refusal at 3.4 m bgs	
13	4									
14										76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-77

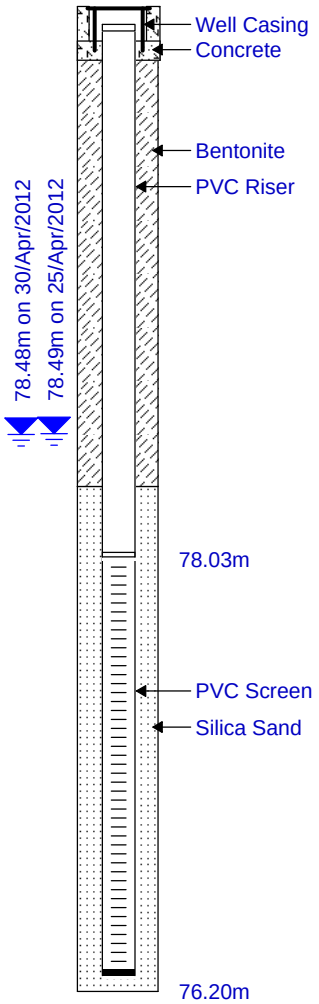
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 18 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: HSA
Borehole Diameter: 250 mm
Monitoring Well Diameter: 50 mm

Drilling Company: Downing`
Drilling Equipment: CME 55 Truckmount
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.29
0 – 1 / 0	3 6 12 10	BH12-77 (0-2)		60	0	40%		TOPSOIL SAND AND GRAVEL FILL dry, brown	80.00
2 – 3 / 1	4 8 8 4	BH12-77 (2-4)		70	0	25%			
4 – 5 / 1	4 3 4 8	BH12-77 (4-6)		65	0	50%		SILTY SAND moist, brown	79.00
6 – 7 / 2	10 11 13 15	BH12-77 (6-8)	◆	65	0	100%		CLAY moist, grey/brown, stiff	78.00
8 – 9 / 2	5 8 10 13	BH12-77 (8-10)	◆	65	4	100%		firm to soft SILTY SAND solvent odor	
10 – 11 / 3	50 for 127 mm	BH12-77 (10-11)		60	0	5%		SAND traces of rock	77.00
12 – 13 / 4	50 for 127 mm	BH12-77 (12-14)		-	-	10%		LIMESTONE	
14 – 15								Refusal at 4.2 m bgs	76.00

Top of Riser Elev.= 80.18 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

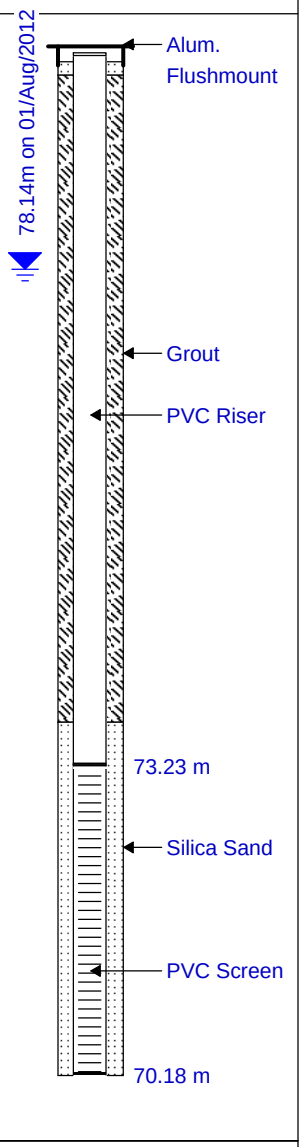
Borehole/Monitoring Well ID: BH/MW12-77A

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 01 August 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.36
0–3 / 0–1	-	-		-	-	-		See BH/MW12-77 for soil lithology.	79.00
3–13 / 1–4									78.00
13–23 / 4–7	-	-		-	-	-		Limestone	77.00
23–33 / 7–10									76.00
33–35 / 10								End of Borehole at 10.2 m bgs.	75.00
									74.00
									73.00
									72.00
									71.00
									70.00



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-77B

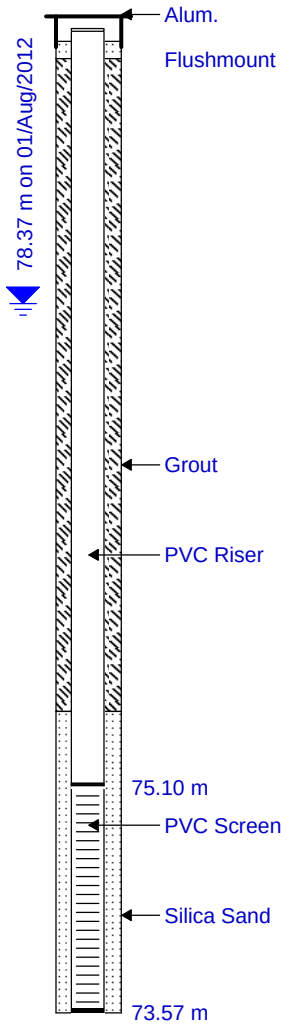
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 1 August 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.33
0 – 13 / 0 – 4	-	-		-	-	-		See BH/MW12-77 for soil lithology.	80.00 – 78.00
13 – 22 / 4 – 6.8	-	-		-	-	-		Limestone	76.00 – 73.00
22 – 24 / 6.8 – 7								End of Borehole at 6.8 m bgs.	73.00

Top of Riser Elev.= 80.25 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-78

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 19 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.26
0–1 / 0		BH12-78 (0-2)	◆	120	0	65%		TOPSOIL	80.00
2–3 / 1		BH12-78 (2-4)	◆	130	0	65%		SILTY SAND FILL moist, brown dark brown/black	
4–5 / 2		BH12-78 (4-6)		115	0	100%		CLAY dry, brown	79.00
6–7 / 2		BH12-78 (6-8)		100	0	100%			78.00
8–9 / 3		BH12-78 (8-10)		145	0	100%		SILTY SAND wet, brown	
10–11 / 3		BH12-78 (10-12)	◆	175	0	100%			77.00
12–13 / 4								Refusal at 3.6 m bgs	76.00
14–15									

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-79

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 27 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	81.18
								Stratification recorded by Others	
9 / 3		BH12-79 (0-1)	◆	10 ppm	0 ppm	83%		SILTY CLAY moist, light brown with orange	
10 / 3		BH12-79 (1-2)	◆	25 ppm	0 ppm	83%		SAND coarse, white, pink and black	80.00
11 / 3								CLAY brown	79.00
12 / 4								BEDROCK limstone	78.00
13 / 4								Refusal at 3.3m bgs	77.00
15									

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-79

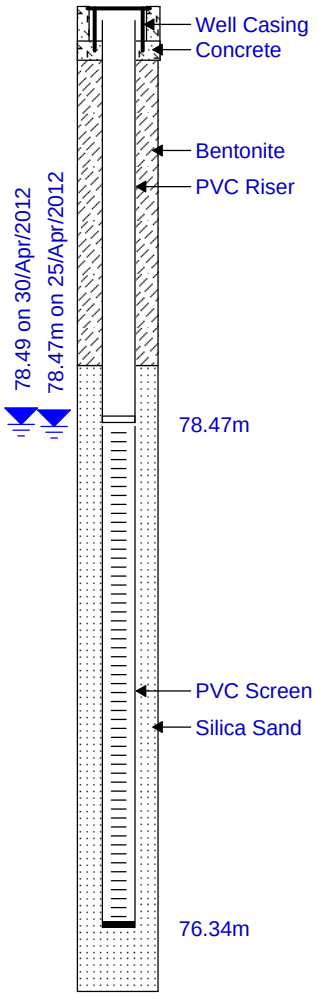
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 18 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: HSA
Borehole Diameter: 250 mm
Monitoring Well Diameter: 50 mm

Drilling Company: Downing`
Drilling Equipment: CME 55 Truckmount
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.25
0 – 1	2 3 5 2	BH12-79 (0-2)		70	0	40%		TOPSOIL SAND AND GRAVEL FILL dry, brown	80.00
2 – 3 / 1	3 5 3 3	BH12-79 (2-4)	◆	5	0	15%		SAND FILL dry, brown, with some silt	
4 – 5	5 5 7 8	BH12-79 (4-6)	◆	5	0	75%		CLAY moist, brown, stiff	79.00
6 – 7 / 2	9 11 15 10	BH12-79 (6-8)		0	0	75%			78.00
8 – 9	6 8 10 12	BH12-79 (8-10)		0	4	100%			
10 – 11 / 3	6 9 27 50 for 51 mm	BH12-79 (10-11)		0	0	75%		SILTY SAND wet	77.00
12 – 13 / 4	27 50 for 127 mm	BH12-79 (12-14)		-	-	5%		LIMESTONE	
14 – 15								Refusal at 4.2 m bgs	76.00

Top of Riser Elev. = 80.19 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-79A

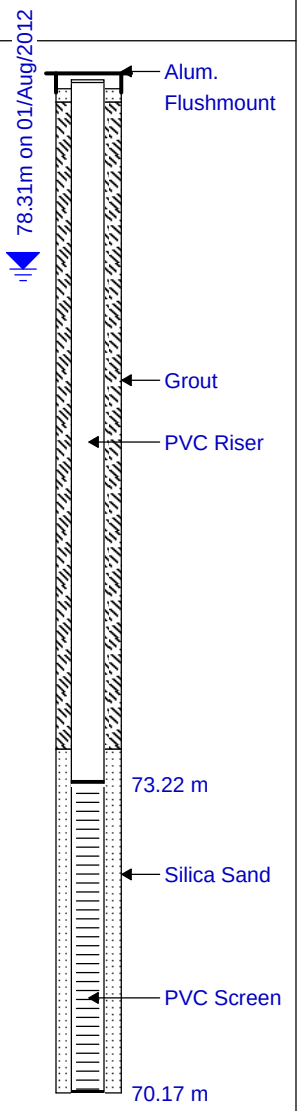
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 27 July 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.26
0–13 / 0–4	-	-		-	-	-		See BH/MW12-79 for soil lithology.	79.00, 78.00, 77.00
13–33 / 4–10	-	-		-	-	-		Limestone	76.00, 75.00, 74.00, 73.00, 72.00, 71.00
33 / 10								End of Borehole at 10.1 m bgs.	70.00

Top of Riser Elev.= 80.16 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-79B

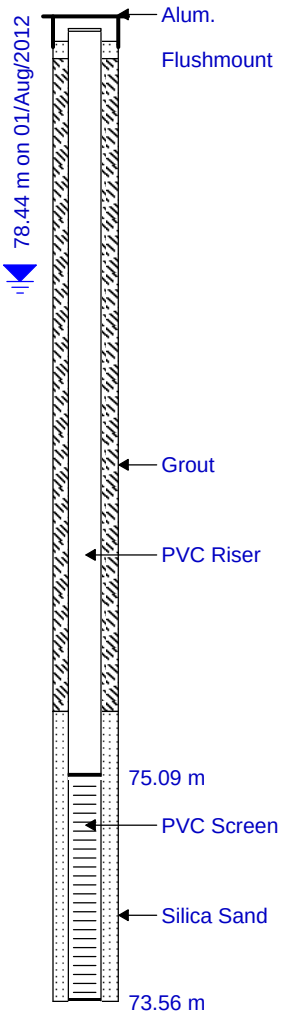
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 1 August 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.25
0 – 2 / 0 – 1	-	-		-	-	-		See BH/MW12-79 for soil lithology.	79.00
13 – 16 / 4 – 5	-	-		-	-	-		Limestone	76.00 – 75.00
22 / 7								End of Borehole at 6.7 m bgs.	73.00

Top of Riser Elev.= 80.17 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-80

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 19 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.27
0	0								TOPSOIL	
1			BH12-80 (0-2)	◆	125	0	85%		SAND AND GRAVEL FILL dry, brown	80.00
2									SILTY SAND FILL dry, brown	
3	1		BH12-80 (2-4)		105	0	85%			
4										79.00
5			BH12-80 (4-6)		100	0	100%		CLAY dry, brown	
6										
7	2		BH12-80 (6-8)		130	0	100%			78.00
8										
9			BH12-80 (8-10)		220	0	100%		SILTY SAND wet, brown	
10	3									
11			BH12-80 (10-12)		165	0	100%			77.00
12			BH12-80 (12-13)	◆	180	0	85%			
13	4									
14									Refusal at 4.0 m bgs	76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-81

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 19 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.25
0–1	0		BH12-81 (0-2)		115	0	65%		TOPSOIL dry, brown	80.00
2–3	1		BH12-81 (2-4)	◆	135	0	65%		SILTY SAND FILL moist, dark brown	
4–5			BH12-81 (4-6)		80	0	100%		CLAY moist, brown	79.00
6–7	2		BH12-81 (6-8)	◆	105	0	100%		SILTY SAND wet, brown	78.00
8–9			BH12-81 (8-10.5)		60	0	100%			
10	3		BH12-81 (10-10.5		65	0	100%			
11–12									Refusal at 3.2 m bgs	77.00
13–14	4									76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-82

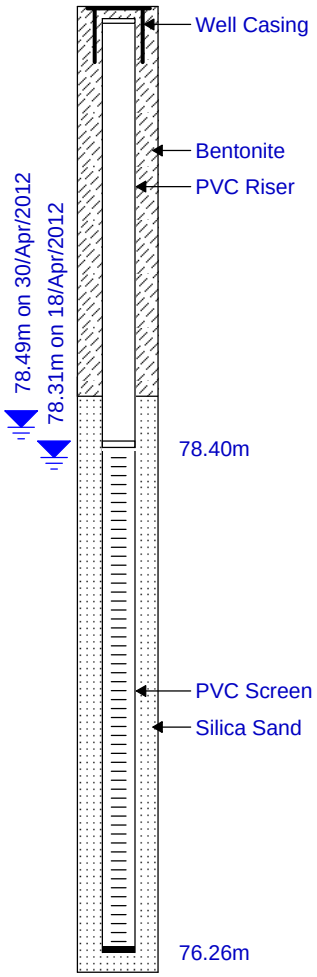
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 18 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: HSA
Borehole Diameter: 250 mm
Monitoring Well Diameter: 50 mm

Drilling Company: Downing`
Drilling Equipment: CME 55 Truckmount
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.27
0								TOPSOIL	
1	3 4 5 4	BH12-82 (0-2)		55	0	25%		SAND FILL dry, brown	80.00
2	3 3 3 3	BH12-82 (2-4)	◆	70	0	35%		moist	
3									
4	3 3 6 9	BH12-82 (4-6)		70	0	75%		CLAY moist, brown, stiff	79.00
5									
6	12 20 17 4	BH12-82 (6-8)		65	0	100%			
7									78.00
8	3 10 6 6	BH12-82 (8-10)		65	0	35%			
9									
10	10 6 10 12	BH12-82 (10-12)	◆	60	0	75%		SILTY SAND wet, light brown	77.00
11									
12	10 50 for 76 mm	BH12-82 (12-14)		60	0	15%			
13									
14								Refusal at 4.1 m bgs	76.00
15									

Top of Riser Elev.= 80.19 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-83

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 19 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.26
		BH12-83 (0-2)		155	0	65%		ASPHALT SAND AND GRAVEL FILL dry, brown	80.00
2		BH12-83 (2-4)		120	0	65%		SILTY SAND FILL moist, dark brown light brown	
4 / 1		BH12-83 (4-6)	◆	75	0	100%		CLAY moist, brown	79.00
6		BH12-83 (6-8)		65	0	100%			78.00
8 / 2		BH12-83 (8-10)		130	0	100%		SILTY SAND moist to wet, brown	
10		BH12-83 (10-12)	◆	130	0	100%			77.00
12 / 3								Refusal at 3.0 m bgs	
14 / 4									76.00

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-84

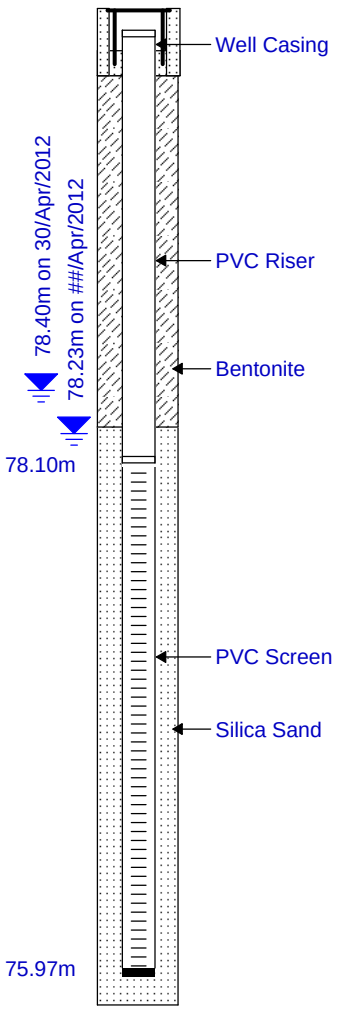
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 16 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: HSA
Borehole Diameter: 250 mm
Monitoring Well Diameter: 50 mm

Drilling Company: Downing`
Drilling Equipment: CME 55 Truckmount
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.03
0 – 1								ASPHALT	
1	8, 13, 14	BH12-84 (0-2)		105	0	35%		SAND AND GRAVEL FILL dry, brown	
2 – 3 / 1	2, 3, 4, 5	BH12-84 (2-4)	◆	85	0	55%		CLAY dry to moist, light to dark brown	79.00
4 – 5	2, 4, 5, 6	BH12-84 (4-6)		70	0	85%			
6 / 2	5, 5, 10, 12	BH12-84 (6-8)		80	0	100%		with silty sand and gravel	78.00
8 – 9	6, 7, 8, 7	BH12-84 (8-10)	◆	20	0	85%			
10 / 3	12, 32, 50 for 127 mm	BH12-84 (10-12)		65	0	55%			77.00
12 – 13 / 4	10, 21, 50 for 75 mm	BH12-84 (12-14)		80	0	50%		SAND wet, brown grey	76.00
14 – 15								Refusal at 4.2 m bgs	

Top of Riser Elev.= 79.94 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-85

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 19 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.25
		BH12-85 (0-1)		-	-	-		ASPHALT	
1								SAND AND GRAVEL FILL dry, brown	80.00
		BH12-85 (1-2)	◆	210	0	65%		CLAY moist, brown	
2									
3 / 1		BH12-85 (2-4)		155	0	65%			
4									79.00
		BH12-85 (4-6)		100	0	100%			
6									
7 / 2		BH12-85 (6-8)	◆	170	0	100%			
8									78.00
		BH12-85 (8-10)		145	0	100%		wet	
10 / 3								SILTY SAND moist, brown	
11		BH12-85 (10-12)		145	0	100%			77.00
12								SAND moist, brown	
13 / 4		BH12-85 (12-14)		150	0	100%			
14								SILTY SAND wet, grey	76.00
15								Refusal at 4.3 m bgs	

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-86

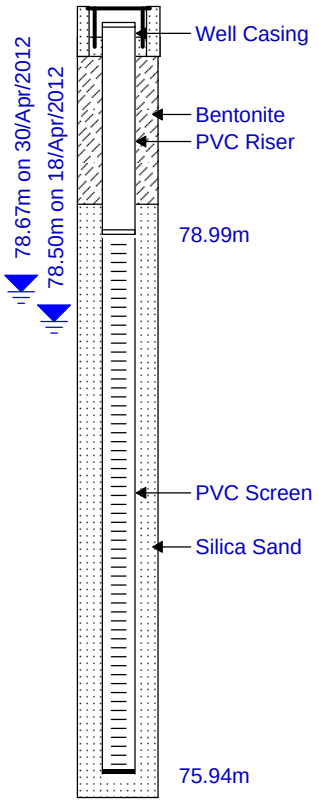
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 16 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: HSA
Borehole Diameter: 250 mm
Monitoring Well Diameter: 50 mm

Drilling Company: Downing`
Drilling Equipment: CME 55 Truckmount
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.28
0 / 0	3 12 18 19	BH12-84 (0-2)		175	0	25%		ASPHALT SAND AND GRAVEL FILL dry, brown	80.00
2 / 1	19 3 2 2	BH12-84 (2-4)	◆	145	0	40%		CLAY moist, dark brown	
4 / 1	3 3 5 7	BH12-84 (4-6)		115	0	90%			79.00
6 / 2	10 10 11 11	BH12-84 (6-8)		115	0	100%			78.00
8 / 3	7 14 25 17	BH12-84 (8-10)	◆	115	0	65%		SILTY SAND wet, brown	
10 / 3	32 27 55 for 304mm	BH12-84 (10-12)		95	0	60%			77.00
12 / 4	7 27 28 34	BH12-84 (12-14)		100	0	40%			
14 / 4	12 52 for 50mm	BH12-84 (12-16)		85	0	15%			76.00
15 / 5								Refusal at 4.5 m bgs	
17 / 5									75.00
20 / 6									

Top of Riser Elev.= 80.17 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-87

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 19 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.42
0–1 / 0		BH12-87 (0-2)	◆	115	0	70%		TOPSOIL dry, brown	80.00
2–3 / 1		BH12-87 (2-4)	◆	150	0	70%		CLAY dry, brown	
4–5		BH12-87 (4-6)		115	0	100%		moist	79.00
6–7 / 2		BH12-87 (6-8)		110	0	100%		wet	
8–9		BH12-87 (8-10)		120	0	100%		SILTY SAND wet, brown wet to moist	78.00
10–11 / 3		BH12-87 (10-12)	◆	185	0	100%		moist to dry	77.00
12–13		BH12-87 (12-14)		130	0	60%		wet	
14 / 4		BH12-87 (14-15)		130	0	100%		grey	76.00
15								Refusal at 4.5 m bgs	

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-88

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 19 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.33
0–1	0		BH12-88 (0-2)		100	0	100%		TOPSOIL moist, brown	80.00
2–4	1		BH12-88 (2-4)	◆	90	0	100%		CLAY moist, brown	
4–5			BH12-88 (4-6)		95	0	100%			79.00
6–7	2		BH12-88 (6-8)		95	0	100%		SILTY SAND wet, brown	
8–9			BH12-88 (8-10)		100	0	85%		moist	78.00
10–11	3		BH12-88 (10-12)	◆	120	0	85%			77.00
12–13	4		BH12-88 (12-14)		85	0	65%			
14									LIMESTONE	76.00
15									Refusal at 4.3 m bgs	

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-89

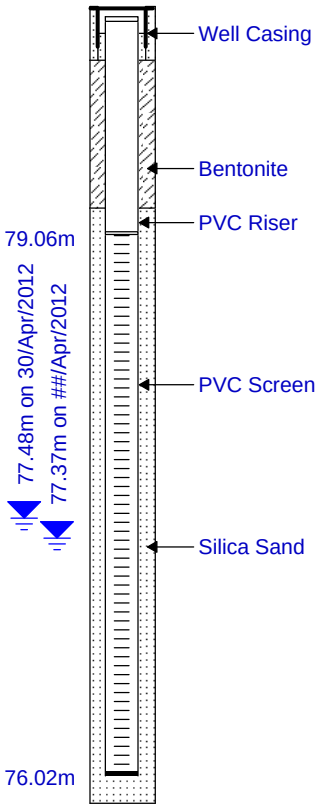
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 16 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: HSA
Borehole Diameter: 250 mm
Monitoring Well Diameter: 50 mm

Drilling Company: Downing`
Drilling Equipment: CME 55 Truckmount
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.37
0 – 1 / 0	4 3 4 4	BH12-89 (0-2)		100	16	15%		SOD SAND FILL dry, brown	80.00
2 – 3 / 1	6 7 8 9	BH12-89 (2-4)	◆	80	0	50%		CLAY moist, brown	
4 – 5 / 1	7 6 8 9	BH12-89 (4-6)		60	0	75%		light brown	79.00
6 – 7 / 2	10 11 11 13	BH12-89 (6-8)		65	0	85%			78.00
8 – 9 / 2	6 20 24 26	BH12-89 (8-10)		60	0	65%		SANDY GRAVEL grey, rock fragments	
10 – 11 / 3	50 for 150 mm	BH12-89 (10-12)		60	0	25%		SAND moist, brown	77.00
12 – 13 / 4	1 13 50 for 100 mm	BH12-89 (12-14)	◆	30	0	20%		SAND AND GRAVEL brown, wet	
14 / 4	50 for 125 mm	BH12-89 (14-15)		-	-	15%		dark brown, wet	76.00
15 – 20 / 5 – 6								Refusal at 4.5 m bgs	75.00

Top of Riser Elev.= 80.30 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-90

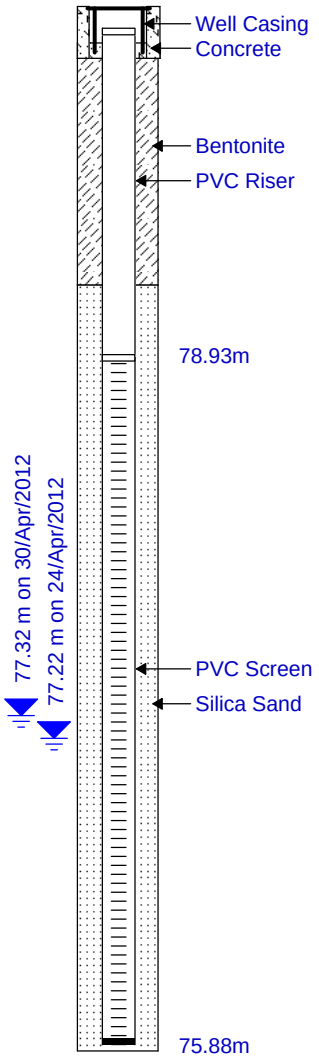
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 17 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: HSA
Borehole Diameter: 250 mm
Monitoring Well Diameter: 50 mm

Drilling Company: Downing`
Drilling Equipment: CME 55 Truckmount
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.42
0		-		-	-	-		ASPHALT	
								CONCRETE	
1	6 5 4	BH12-90(1-2)	◆	55	0	35%		SAND AND GRAVEL FILL moist, light brown	80.00
2	4 4 7 7	BH12-90 (2-4)		55	0	75%		SILTY SAND moist, brown, with some clay	
3 (1 m)	6 8 4 4	BH12-90 (4-6)	◆	55	0	30%			79.00
4									
5									
6	8 8 25 35	BH12-90 (6-8)		55	0	70%		wet, soft	
7 (2 m)									
8	15 50 for 51 mm	BH12-90 (8-10)	◆	45	0	25%		moist, some multicolored gravel	78.00
9									
10	36 50 for 102 mm	BH12-90 (10-12)		-	-	5%		LIMESTONE wet, with some sand, very dense	
11 (3 m)									77.00
12									
13	50 for 127 mm	BH12-90 (12-14)	◆	60	2	35%			
14 (4 m)									76.00
15								Refusal at 4.6 m bgs	

Top of Riser Elev.= 80.27 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-91

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 19 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	81.18
0	0		-		-	-	-		CONCRETE	
1			BH12-91 (1-2)	◆	40	0	55%		SAND AND GRAVEL FILL dry, brown	
2									CLAY moist, brown	
3	1		BH12-91(2-4)		60	0	55%			
4										80.00
5			BH12-91 (4-6)	◆	75	0	100%			
6									SILTY SAND wet, brown	
7	2		BH12-91 (6-8)		70	0	100%			79.00
8										
9			BH12-91 (8-10)		115	0	65%			
10	3									
11			BH12-91 (10-12)		100	0	65%			78.00
12			BH12-91 (12-13)		100	0	100%		LIMESTONE wet, black, fractured	
13	4								Refusal at 3.9 m bgs	
14										77.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-92A

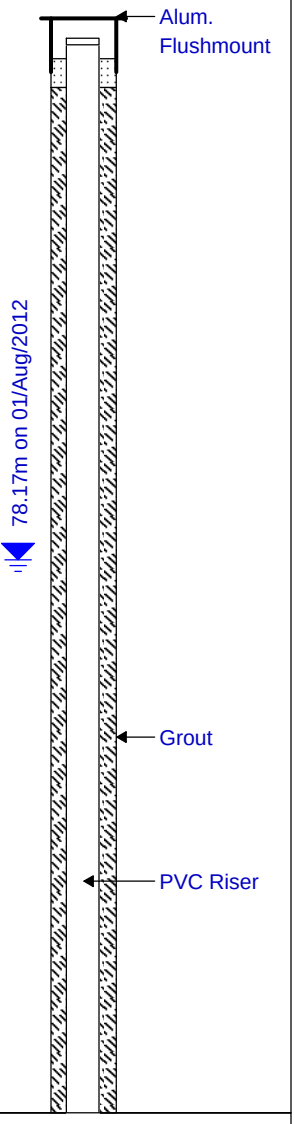
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 9 August 2012
Site Datum: Geodetic

SLE Supervisor: Emily V./E. Kelly
Drilling Method: Direct-Push/Air Rotary
Borehole Diameter: 83 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe/Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: RKI Eagle/MiniRae

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.47
1	-	BH-12-92A (0-2)		5	0.9	53%		SAND AND GRAVEL FILL light brown and grey	
2								SAND coarse	80.00
3 / 1								CLAYEY SILT black, compact	
4		BH-12-92A (2-4)		0	0.2	53%		olive, compact	
5									79.00
6		BH-12-92A (4-6)		5	0	95%		black and olive SAND coarse	
7 / 2								SAND AND GRAVEL FILL SILTY CLAY moist, grey with orange streaks, trace pebbles, compact to soft	
8									78.00
9		BH-12-92A (6-8)		5	0	95%		TILL (SILT, SAND, CLAY) wet	
10 / 3		BH-12-92A (8-9)		5	0	52%		CLAYEY SILT black and olive	
		BH-12-92A (9-10)		0	0	52%			
11								SILTY CLAY grey with orange streaks, pebbles	77.00
12								TILL (SILT, SAND, CLAY) wet, light brown with semi-rounded pebbles, soft	
13 / 4								Limestone	
14									
15									76.00

Top of Riser Elev.= 80.40 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

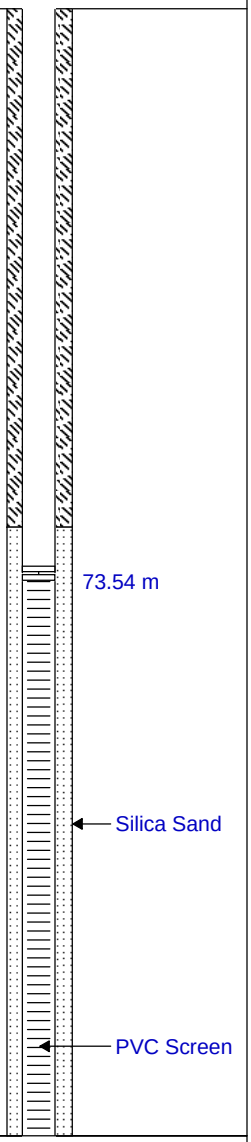
Borehole/Monitoring Well ID: BH/MW12-92A

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 9 August 2012
Site Datum: Geodetic

SLE Supervisor: Emily V./E. Kelly
Drilling Method: Direct-Push/Air Rotary
Borehole Diameter: 83 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe/Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: RKI Eagle/MiniRae

DEPTH	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
16								Limestone	
17	5								
18									75.00
19									
20	6								
21									74.00
22									
23	7								
24									
25									73.00
26	8								
27									
28									72.00
29	9								
30									



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

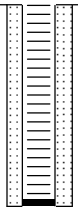
Borehole/Monitoring Well ID: BH/MW12-92A

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 9 August 2012
Site Datum: Geodetic

SLE Supervisor: Emily V./E. Kelly
Drilling Method: Direct-Push/Air Rotary
Borehole Diameter: 83 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe/Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: RKI Eagle/MiniRae

DEPTH	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
31								Limestone	71.00
32									
33	10							End of Borehole at 9.98 m bgs.	
34									70.00
35									
36	11								
37									
38									69.00
39									
40	12								
41									68.00
42									
43	13								
44									67.00
45									



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-92A

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 9 August 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: MiniRae

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	81.18
0 – 1 / 0		BH12-92A (0-2)		5 ppm	0.9 ppm	53%		SAND AND GRAVEL FILL light brown and grey	
								SAND coarse	
2 – 3 / 1		BH12-92A (2-4)		0 ppm	0.2 ppm	53%		CLAYEY SILT black, compact olive, compact	80.00
4 – 5 / 1		BH12-92A (4-6)		5 ppm	0 ppm	95%		back and olive SAND coarse SAND AND GRAVEL FILL	
6 – 7 / 2								SILTY CLAY moist. grey with orange streaks, trace papbbles, compact to soft	79.00
8 – 9 / 2		BH12-92A (6-8)		5 ppm	0 ppm	95%		TILL (SILT, SAND, CLAY) wet	
10 / 3		BH12-92A (8-9)		5 ppm	0 ppm	52%		CLAYEY SILT black and olive	78.00
10 – 11 / 3		BH12-92A (9-10)		0 ppm	0 ppm	52%		SILTY CLAY grey with orange streaks, pebbles	
12 – 13 / 4								TILL (SILT, SAND, CLAY) wet, light brown with semi-rounded pebbles, soft	
13 – 14 / 4								Refusal at 3.3m bgs	77.00
14 – 15									

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-93

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 9 August 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: MiniRae

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.54
0–2	0–0.6		BH12-93 (0-2)	◆	0 ppm	108 ppm	55%		SAND AND GRAVEL FILL light grey	
2–4	0.6–1.2		BH12-93 (2-4	◆	0 ppm	65 ppm	55%		CLAYEY SILT black, compact olive, compact	80.00
4–6	1.2–1.8		BH12-93 (4-6)	◆	0 ppm	85 ppm	100%		SAND AND GRAVEL FILL SILTY CLAY grey with orange streaks, trace rounded pebbles, compact moist	79.00
6–8	1.8–2.4		BH12-93 (6-8)	◆	0 ppm	65 ppm	100%		TILL (SILT, SAND, CLAY) light brown with orange streaks, rounded pebbles, soft, moist	78.00
8–10	2.4–3.0		BH12-93 (8-9)	◆	0 ppm	4.5 ppm	100%		SAND AND GRAVEL TILL (SILT, SAND, CLAY) Refusal at 3.2m bgs	77.00
10–15	3.0–4.6									76.00

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

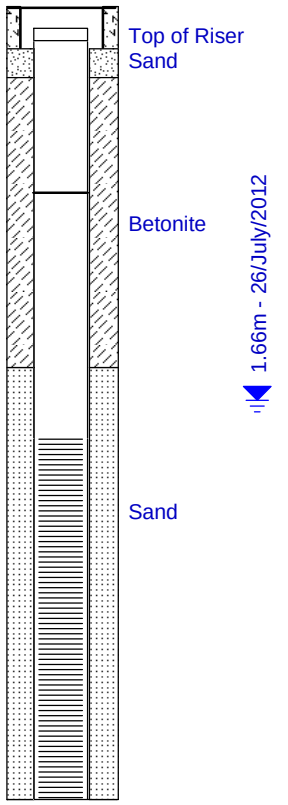
Borehole ID: BH12-94

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 25 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.54
0		BH12-94 (0-2)				50%		ASPHALT SAND AND GRAVEL FILL dry, black dry, brown	80.00
3 / 1		BH12-94 (2-4)		15 ppm	9ppm	50%		SILTY CLAY moist, black-brown	
6 / 2		BH12-94 (4-6)	◆	55 ppm	9 ppm	85%		SITLY SAND AND GRAVEL moist, brown	79.00
8 / 9 / 3		BH12-94 (6-8)	◆	85 ppm	501 ppm	85%		CLAY wet, black stain, strong odour wet, dark grey, strong odour	78.00
10 / 11 / 12 / 13 / 4 / 14 / 15								Refusal at 3.05m bgs	77.00 76.00



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-94

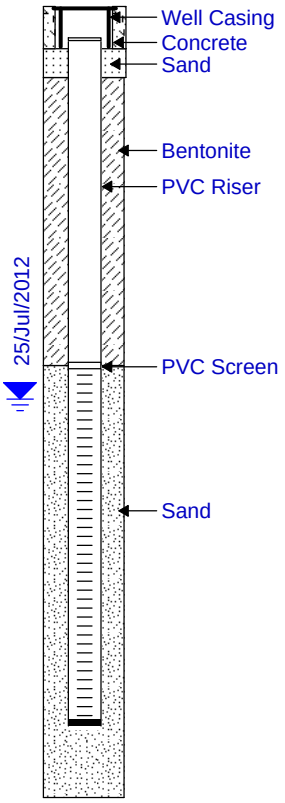
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 25 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm
Monitoring Well Diameter: 51mm (2")

Drilling Company: Strata
Drilling Equipment: Geoprobe
Well Casing:
Well Screen:
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.71
0 – 1 ft		BH12-94 (0-2)				50%		ASPHALT SAND AND GRAVEL FILL dry, black	
1 – 2 ft								dry, brown	
2 – 3 ft		BH12-94 (2-4)		15	9	50%		SILTY CLAY moist, black to brown	80.00
3 – 4 ft									
4 – 5 ft		BH12-94 (4-6)	◆	55	9	85%		SILT, SAND AND GRAVEL moist, brown	79.00
5 – 6 ft									
6 – 7 ft		BH12-94 (6-8)	◆	85	501	85%		CLAY wet, black stain, strong odour	78.00
7 – 8 ft								dark grey, strong odour	
8 – 9 ft								Refusal at 3.05m bgs	
9 – 10 ft									77.00
10 – 11 ft									
11 – 12 ft									
12 – 13 ft									
13 – 14 ft									
14 – 15 ft									

Top of Riser Elev.= 80.52 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-95A

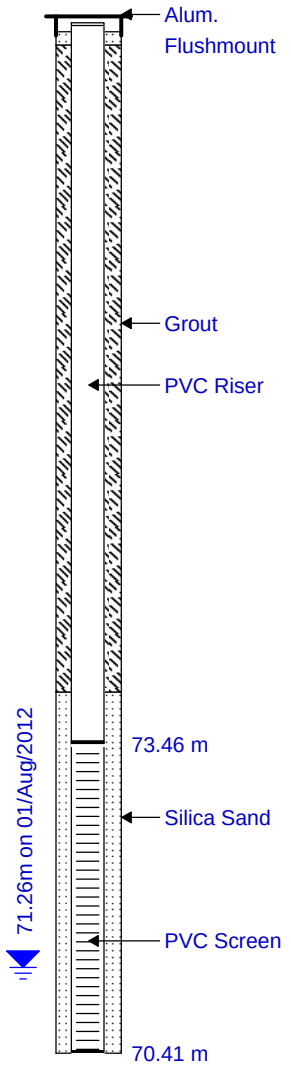
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 July 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.67
0–12 / 0–3	-	-		-	-	-		Soil Lithology/Sampling not conducted.	80.00 – 77.00
13–33 / 4–10	-	-		-	-	-		Limestone	77.00 – 70.00
34 / 10								End of Borehole at 10.3 m bgs.	70.00

Top of Riser Elev.= 80.57 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-95B

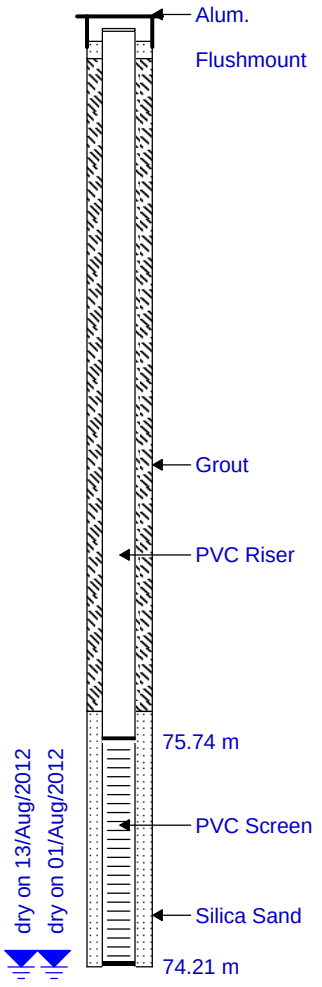
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 27 July 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.66
0–12 / 0–3.5	-	-		-	-	-		Soil Lithology/Sampling not conducted.	80.66 – 77.00
12–21 / 3.5–6.5	-	-		-	-	-		Limestone Dry, brown/orange product present.	77.00 – 74.00
21 / 6.5								End of Borehole at 6.5 m bgs.	74.00

Top of Riser Elev.= 80.58 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-96

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 25 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.54
								Stratification recorded by STANTEC BH28 (H5)	
8 / 2									80.00
8 / 2		BH12-96 (0-2)	◆	0 ppm	1 ppm	58%		SILT AND GRAVEL FILL moist soft, brown moist, medium-dense	79.00
11 / 3		BH12-94 (2-4)		0 ppm	1 ppm	58%		very dense, compact, large rocks	78.00
13 / 4								Refusal at 3.96m bgs	77.00
15									76.00

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole ID: BH12-97

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 27 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	81.18
0		BH12-97 (1-2)	◆	0 ppm	2 ppm	59%		CONCRETE	
1								SAND AND GRAVEL FILL dry, light brown	
2								SILTY CLAY dry, brown with orange to brown	
3 / 1		BH12-97 (2-4)	◆	0 ppm	1 ppm	59%			80.00
4									
5		BH12-97 (4-6)	◆	0 ppm	1 ppm	100%		very dense	
6 / 2									
7		BH12-97 (6-8)	◆	0 ppm	1 ppm	100%			79.00
8									
9								SILTY CLAY TILL moist, brown	
10 / 3								Refusal at 2.7 m bgs (Bedrock)	78.00
11									
12									
13 / 4									77.00
14									
15									

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-98A

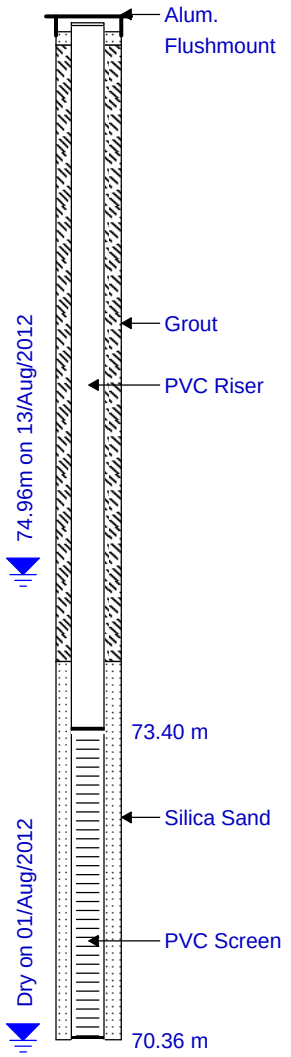
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 July 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.49
0–3 / 0–1	-	-		-	-	-		Soil Lithology/Sampling not conducted.	80.00 – 79.00
3–13 / 1–4	-	-		-	-	-		Limestone	79.00 – 76.00
13–33 / 4–10	-	-		-	-	-		Limestone	76.00 – 70.00
								End of Borehole at 10.1 m bgs.	70.00

Top of Riser Elev.= 80.34 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-98B

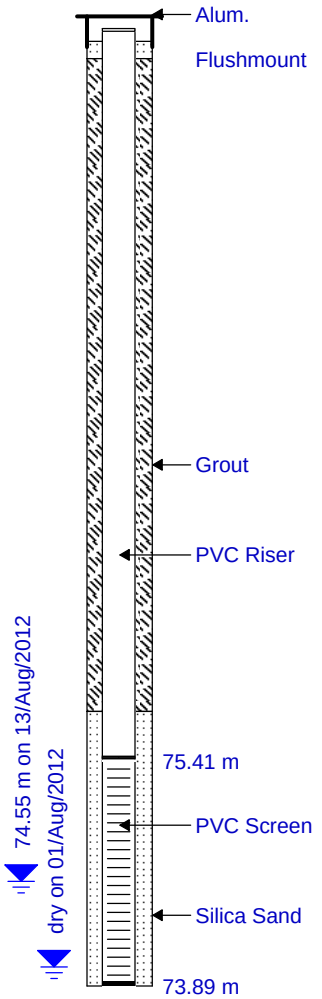
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 July 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.47
0–13 / 0–4	-	-		-	-	-		Soil Lithology/Sampling not conducted.	80.00, 79.00, 78.00, 77.00
13–22 / 4–6.6	-	-		-	-	-		Limestone	76.00, 75.00, 74.00
22 / 6.6								End of Borehole at 6.6 m bgs.	

Top of Riser Elev.= 80.42 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-99A

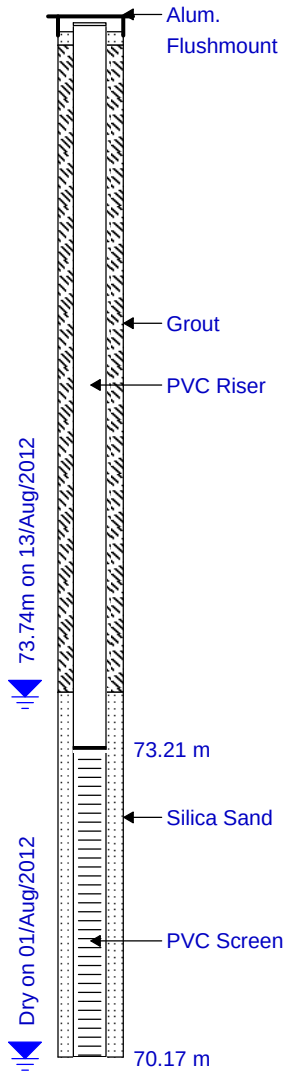
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 31 July 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.48
0–10 / 0–3	-	-		-	-	-		Soil Lithology/Sampling not conducted.	80.00 – 77.00
13–33 / 4–10	-	-		-	-	-		Limestone	76.00 – 70.00
35								End of Borehole at 10.3 m bgs.	70.00

Top of Riser Elev.= 80.34 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-99B

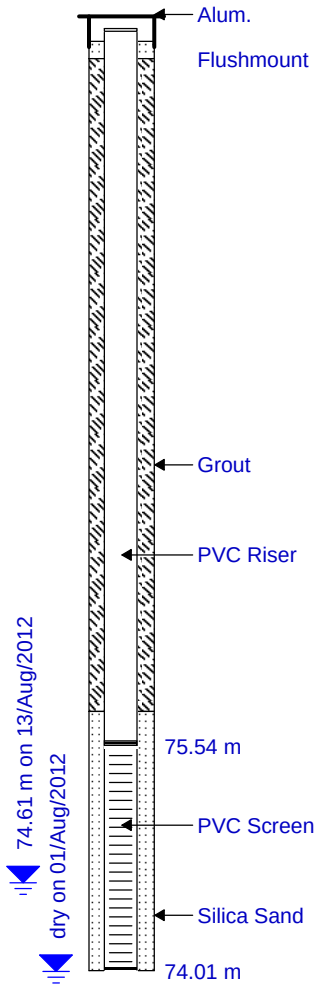
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 July 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.49
0–7 / 0–2		-		-	-	-		Soil Lithology/Sampling not conducted.	80.00, 79.00, 78.00
15–21 / 4–6		-		-	-	-		Limestone	77.00, 76.00, 75.00
21 / 6.5								End of Borehole at 6.5 m bgs.	74.00

Top of Riser Elev.= 80.37 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-100

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.54
								CONCRETE	
1		BH12-100 (0-2)		5 ppm	2 ppm	65%		SAND brown	
2								SILTY CLAY dark brown	80.00
3 / 1		BH12-100 (2-4)		0 ppm	2 ppm	65%			
5		BH12-100 (4-6)		0 ppm	1 ppm	100%			79.00
6 / 2								light brown	
7		BH12-100 (6-8		0 ppm	1 ppm	100%			
8								wet	78.00
9								SILTY CLAY TILL light brown, dense, rounded rocks	
10 / 3		BH12-100 (8-9)		10 ppm	1 ppm	85%			
11									
12		BH12-100 (9-10)		15 ppm	3 ppm	85%			77.00
13 / 4								Refusal at 3.96m bgs	
14									
15									76.00

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-101A

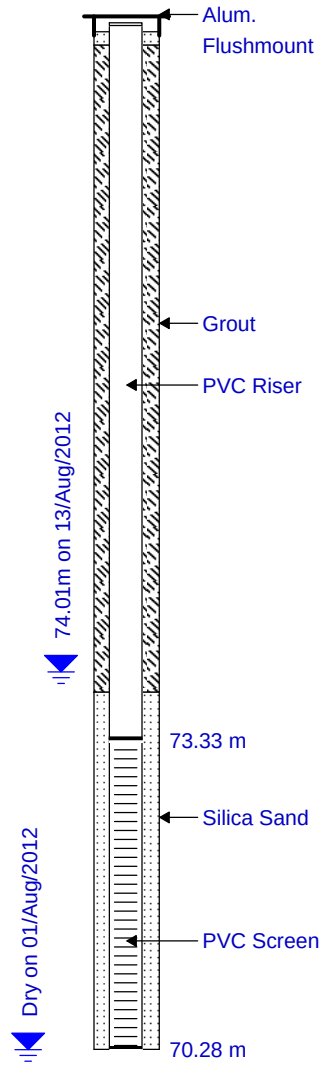
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 29 July 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 51 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.50
0–13 / 0–4	-	-		-	-	-		Soil Lithology/Sampling not conducted.	80.00 – 77.00
13–33 / 4–10	-	-		-	-	-		Limestone	76.00 – 70.00
33–35 / 10								End of Borehole at 10.2 m bgs.	70.00

Top of Riser Elev.= 80.38 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-101B

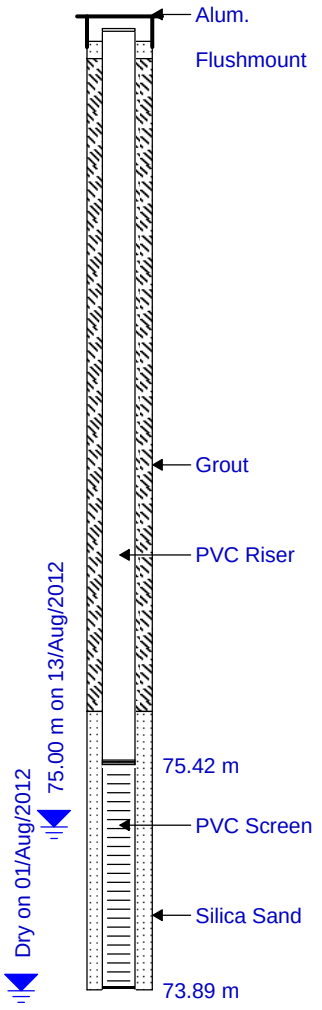
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 29 July 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 51 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.50
0–13 / 0–4	-	-		-	-	-		Soil Lithology/Sampling not conducted.	80.00, 79.00, 78.00
13–20 / 4–6	-	-		-	-	-		Limestone	77.00, 76.00, 75.00
22 / 7								End of Borehole at 6.6 m bgs.	74.00

Top of Riser Elev.= 80.42 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

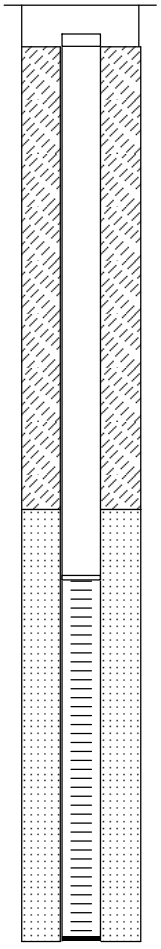
Borehole ID: BH12-102

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 31 July 2012
Site Datum: Geodetic

SLE Supervisor: Eric K.
Drilling Method:
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment:
OVM:
PID:

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.54
0	0								CONCRETE	
1			BH12-102(0-2.5)		0 ppm	0 ppm	55%		SAND FILL dry, brown	
2										80.00
3	1		BH12-102 (2.5-5)		0 ppm	4 ppm	55%			
5									SILTY CLAY dry to moist, brown	79.00
6			BH12-102 (5-7.5)	◆	0 ppm	15 ppm	100%			
7	2									
8			BH12-102 (7.5-10)		0 ppm	16 ppm	100%			78.00
9										
10	3									
11			BH12-102 (10-11.5)	◆	0 ppm	13 ppm	100%		SILTY SAND TILL moist, light brown, with gravel, solvent odours	
12			BH12-102 (11.5-13)		0 ppm	9 ppm	100%			77.00
13	4								Refusal at 3.96m bgs	
14										
15										76.00



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-102A

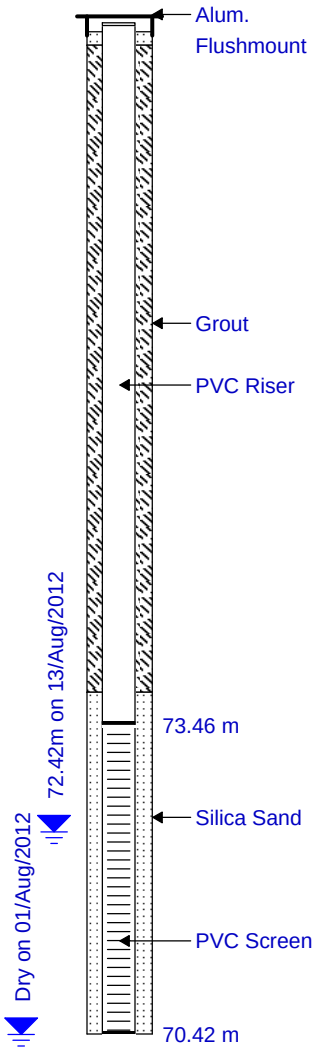
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 29 July 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 51 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.49
0–13 / 0–4	-	-		-	-	-		See BH/MW12-102 for soil lithology.	80.00 – 77.00
13–33 / 4–10	-	-		-	-	-		Limestone	76.00 – 71.00
33 / 10								End of Borehole at 10.1 m bgs.	70.00

Top of Riser Elev.= 80.40 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-102B

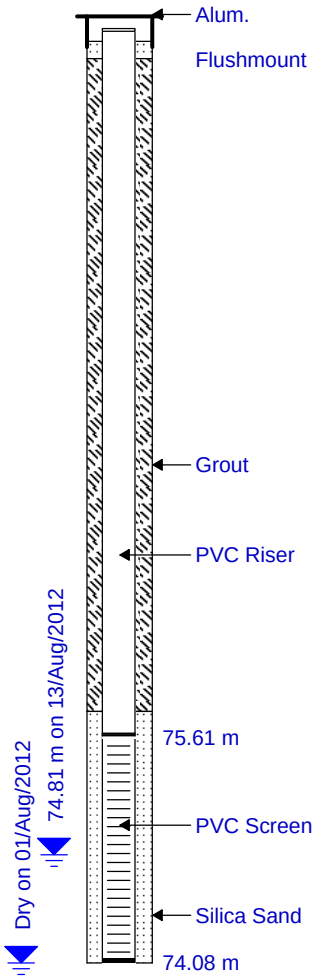
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 29 July 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 51 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.50
0–13 / 0–4	-	-		-	-	-		See BH/MW12-102 for soil lithology.	80.00, 79.00, 78.00
13–21 / 4–6.4	-	-		-	-	-		Limestone	77.00, 76.00, 75.00
21 / 6.4								End of Borehole at 6.4 m bgs.	74.00

Top of Riser Elev.= 80.40 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-103

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.54
0		BH12-103 (0-2)		0 ppm	0 ppm	63%		ASPHALT	
1								SILT AND SAND FILL brown	
2								CLAY dark black, dense	80.00
3 / 1		BH12-103 (2-4)		20 ppm	0 ppm	63%		SAND orange	
4								SILTY CLAY brown, compact	
5									79.00
6 / 2		BH12-103 (4-6)		20 ppm	1 ppm	100%		CLAY light brown	
7									
8		BH12-103 (6-8		0 ppm	1 ppm	100%			78.00
9									
10 / 3								SILTY CLAY AND GRAVEL FILL	
11		BH12-103 (8-9)		0 ppm	0 ppm	100%		CLAY light brown	
12		BH12-103 (9-10)		0 ppm	0 ppm	100%		SILTY CLAY AND GRAVEL FILL light grey	77.00
13 / 4								Refusal at 3.96m bgs (at Bedrock)	
14									
15									76.00

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-104

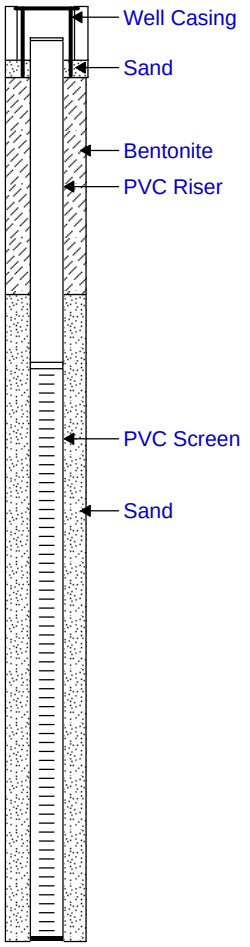
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm
Monitoring Well Diameter: 51mm (2")

Drilling Company: Strata
Drilling Equipment: Geoprobe
Well Casing:
Well Screen:
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.71
0								ASPHALT	
1		BH12-104 (0-2)		45	2	56%		SAND, SILT AND GRAVEL FILL dry, brown	
2								SILTY CLAY dark brown, compact	80.00
3 / 1		BH12-104 (2-4)		40	2	56%			
4								SANDTY SILT WITH CLAY orange to brown	
5								SILTY CLAY ldry, light brown	
6		BH12-94 (4-6)		0	1	88%			79.00
7 / 2									
8		BH12-104 (6-8)		0	1	88%		moist	
9									78.00
10 / 3		BH12-104 (8-9)		15	2	100%			
11								SILTY TILL moist, soft, light brown	
12		BH12-104 (9-11)		15	2	100%		grey, compact	77.00
13 / 4								Refusal at 3.96m bgs	
14									
15									

Top of Riser Elev.= 80.52 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

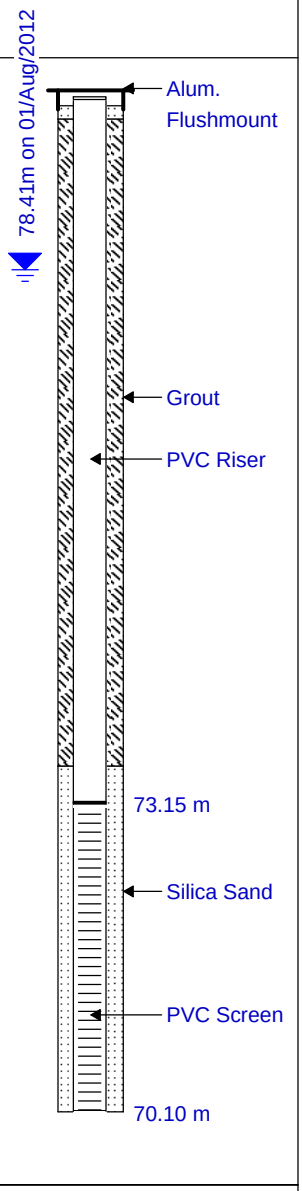
Borehole/Monitoring Well ID: BH/MW12-104A

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 27 July 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.22
0–13 / 0–4	-	-		-	-	-		See BH/MW12-104 for soil lithology.	79.00, 78.00, 77.00
13–23 / 4–7	-	-		-	-	-		Limestone	76.00, 75.00, 74.00, 73.00
33 / 10								End of Borehole at 10.1 m bgs.	70.00



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-104B

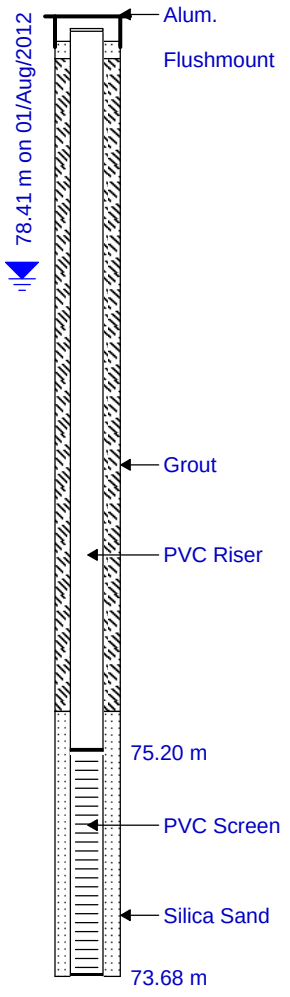
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 27 July 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.20
0–13 / 0–4	-	-		-	-	-		See BH/MW12-104 for soil lithology.	79.00, 78.00, 77.00
13–20 / 4–6	-	-		-	-	-		Limestone	76.00, 75.00, 74.00
20–24 / 6–7								End of Borehole at 6.5 m bgs.	73.00

Top of Riser Elev.= 80.13 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-105

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 27 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.54
0	0								CONCRETE orange	
1			BH12-105 (0-2)		0 ppm	0 ppm	63%		SAND AND GRAVEL brown, dry	
2										80.00
3	1		BH12-105 (2-4)		0 ppm	1 ppm	63%		SILTY CLAY dark brown	
4										
5			BH12-105 (4-6)		0 ppm	1 ppm	25%		orange light brown, dry	79.00
6	2									
7										
8			BH12-105 (6-8		0 ppm	1 ppm	25%		CLAY light brown, dry	78.00
9										
10	3		BH12-105 (8-9)		0 ppm	2 ppm	100%		SILTY SANDY CLAY moist soft, light brown	
11			BH12-105 (9-10)				100%		FRACTURED BEDROCK	77.00
12									Refusal at 3.5m bgs	
13	4									
14										
15										76.00

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

APPENDIX C

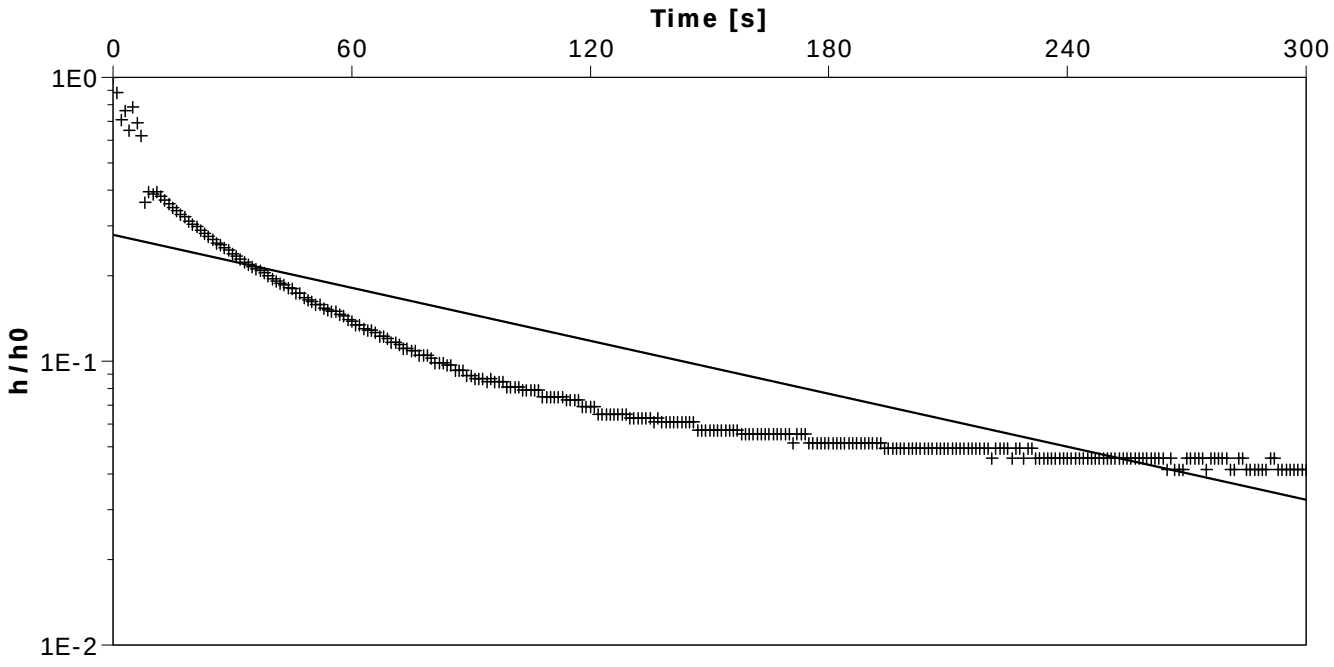
HYDRAULIC CONDUCTIVITY TEST RESULTS

APPENDIX C.1

OVERBURDEN MONITORING WELLS

	Slug Test Analysis Report
	Project: CFB Trenton - Hangar 5&6 DSI
	Number: 12-308
	Client: DCC

Location: CFB Trenton	Slug Test: MW12-27	Test Well: MW12-27
Test conducted by: SLE		Test date: 2013-02-28
Analysis performed by: SLE	Hydraulic Conductivity Test	Date: 2012-08-30
Aquifer Thickness: 1.52 m		

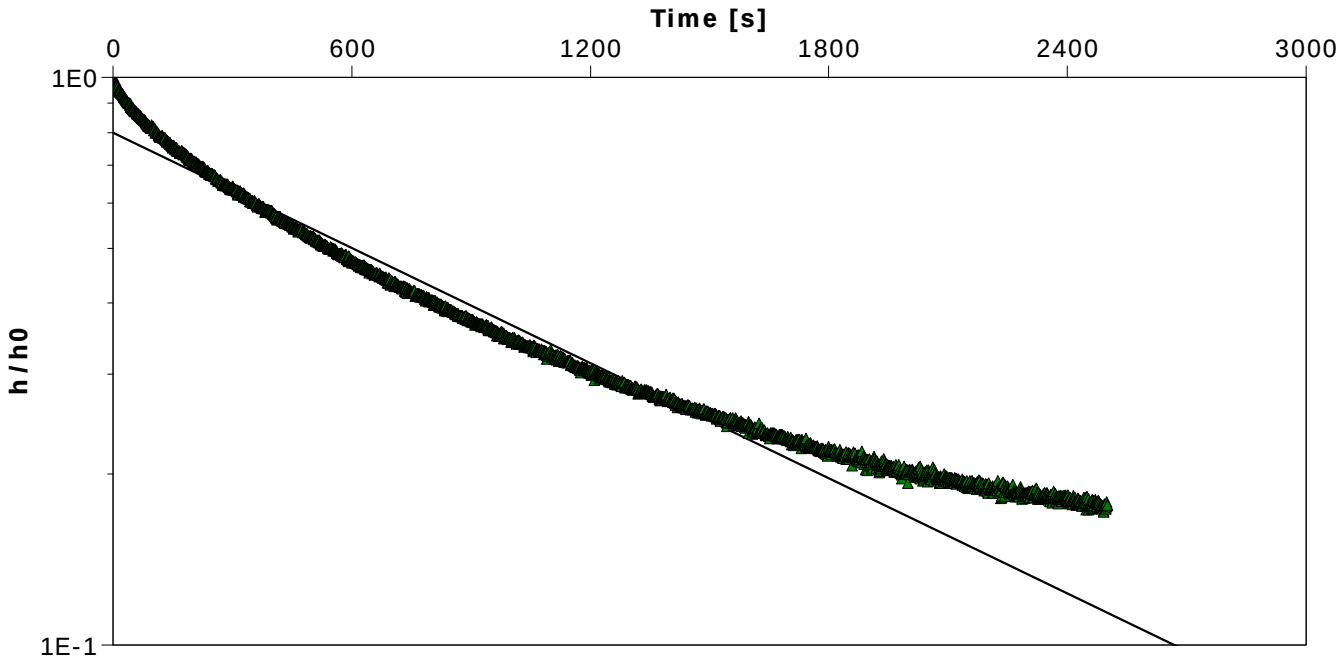


Calculation after Bouwer && Rice

Observation well	K [m/s]	
MW12-27	4.37×10^{-6}	

	Slug Test Analysis Report
	Project: CFB Trenton - Hangar 5&6 DSI
	Number: 12-308
	Client: DCC

Location: CFB Trenton	Slug Test: MW-12-34#1	Test Well: MW12-34
Test conducted by: SLE		Test date: 2012-04-24
Analysis performed by: SLE	Hydraulic Conductivity Analysis	Date: 2012-04-26
Aquifer Thickness:		

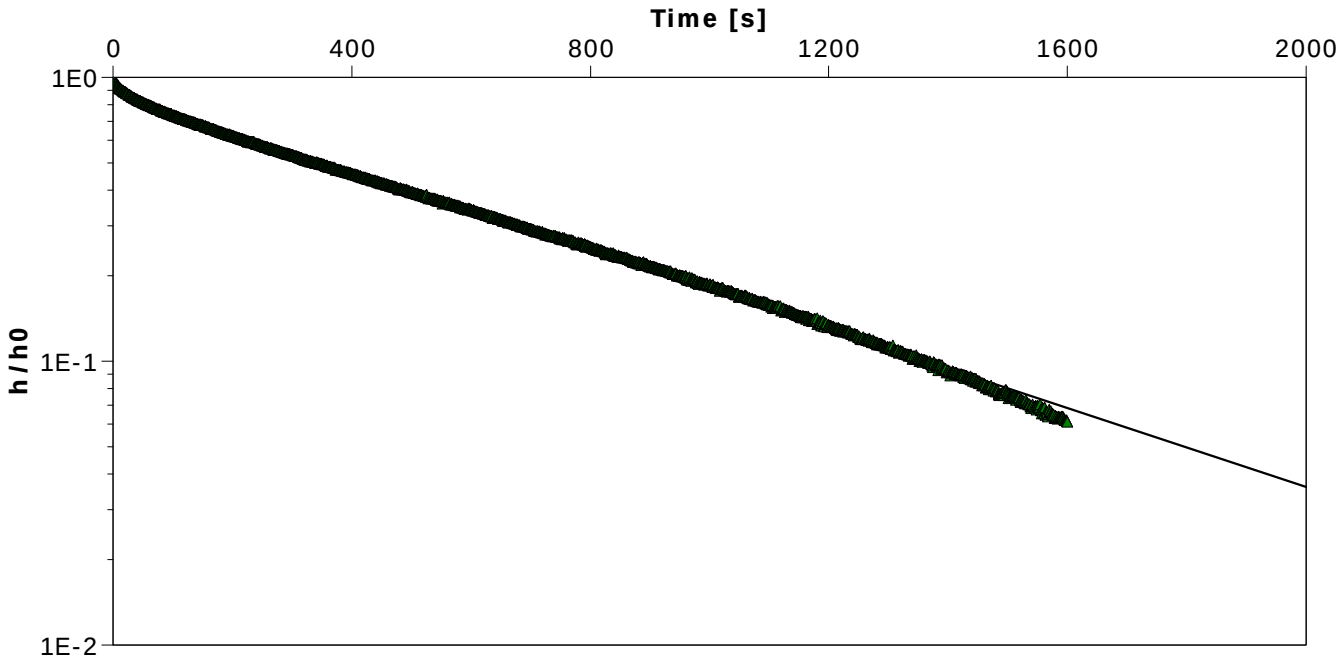


Calculation after Hvorslev

Observation well	K [m/s]	
MW12-34	4.15×10^{-7}	

	Slug Test Analysis Report
	Project: CFB Trenton - Hangar 5&6 DSI
	Number: 12-308
	Client: DCC

Location: CFB Trenton	Slug Test: MW-12-34#2	Test Well: MW12-34
Test conducted by: SLE		Test date: 2012-04-24
Analysis performed by: SLE	Hydraulic Conductivity Analysis	Date: 2012-04-26
Aquifer Thickness:		

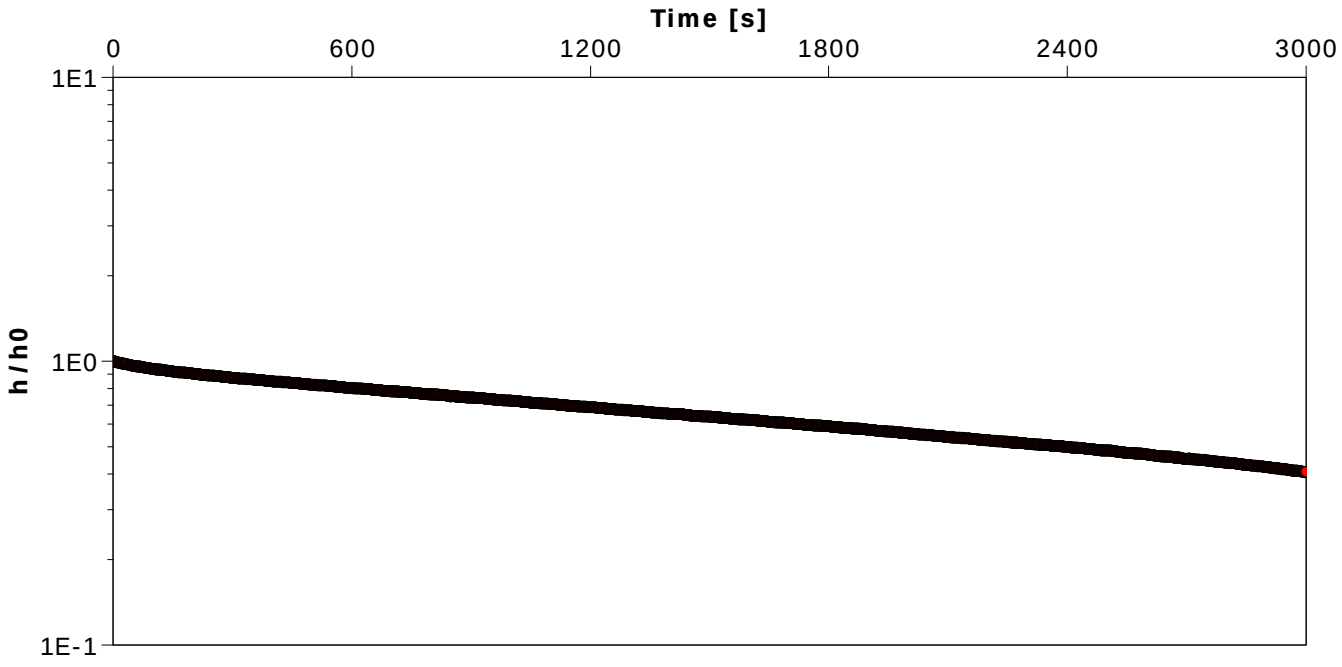


Calculation after Hvorslev

Observation well	K [m/s]	
MW12-34	8.53×10^{-7}	

	Slug Test Analysis Report
	Project: CFB Trenton - Hangar 5&6 DSI
	Number: 12-308
	Client: DCC

Location: CFB Trenton	Slug Test: MW12-52	Test Well: MW-12-52
Test conducted by: SLE		Test date: 2012-04-24
Analysis performed by: SLE	Hydraulic Conductivity Analysis	Date: 2012-04-26
Aquifer Thickness:		

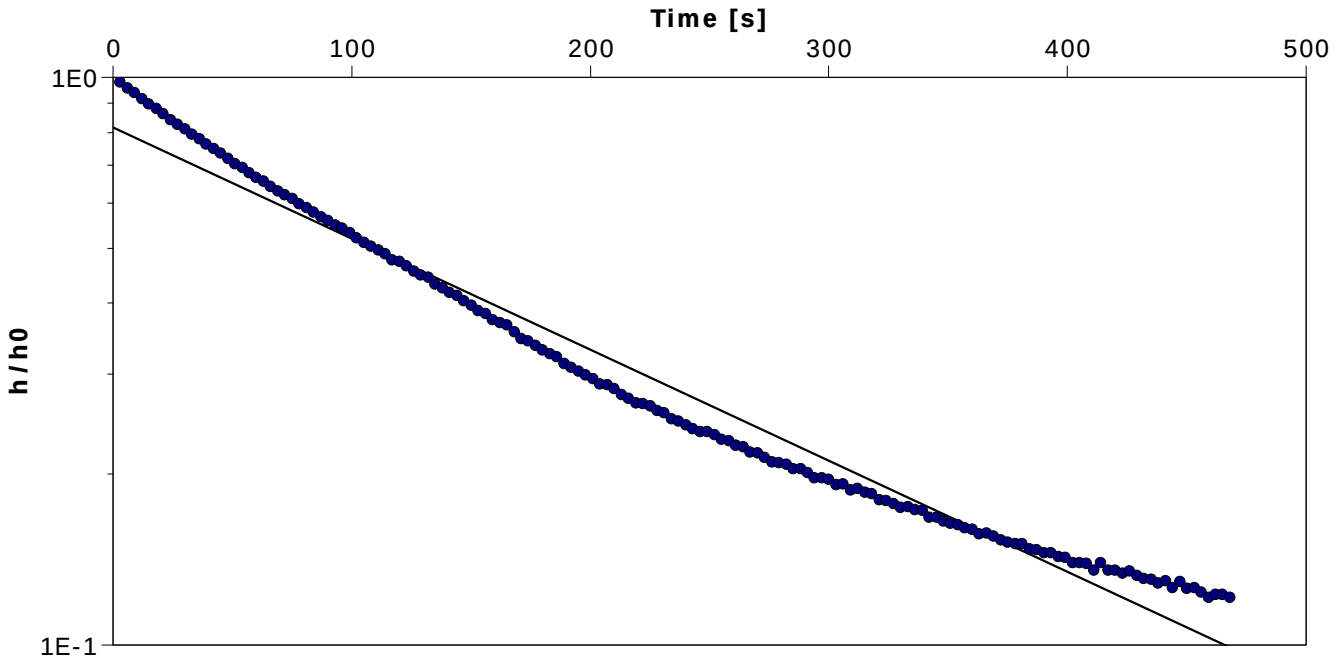


Calculation after Hvorslev

Observation well	K [m/s]	
MW-12-52	1.19×10^{-7}	

	Slug Test Analysis Report
	Project: CFB Trenton - Hangar 5&6 DSI
	Number: 12-308
	Client: DCC

Location: CFB Trenton	Slug Test: MW12-79	Test Well: MW12-79
Test conducted by: SLE		Test date: 2012-08-10
Analysis performed by: SLE	Hydraulic Conductivity Test	Date: 2012-08-13
Aquifer Thickness: 2.44 m		

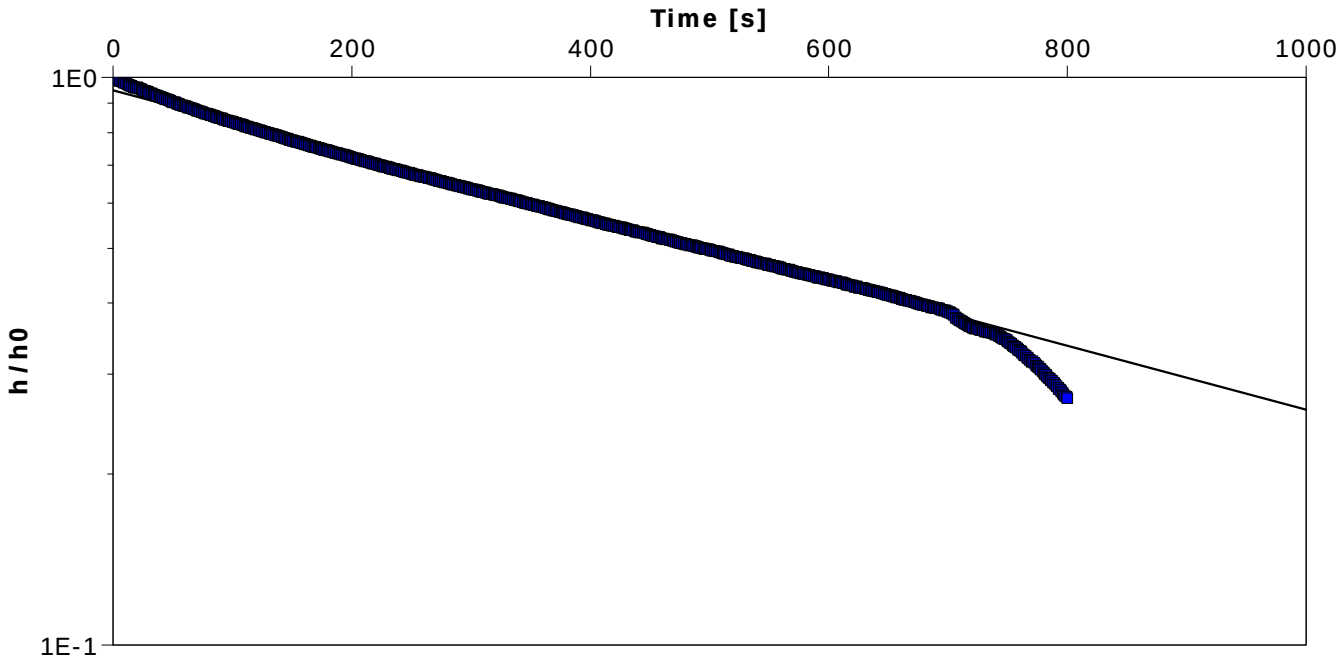


Calculation after Bouwer && Rice

Observation well	K [m/s]	
MW12-79	1.41×10^{-6}	

	Slug Test Analysis Report
	Project: CFB Trenton - Hangar 5&6 DSI
	Number: 12-308
	Client: DCC

Location: CFB Trenton	Slug Test: MW12-84	Test Well: MW-12-84
Test conducted by: SLE		Test date: 2012-04-24
Analysis performed by: SLE	Hydraulic Conductivity Test	Date: 2012-04-26
Aquifer Thickness: 2.13 m		

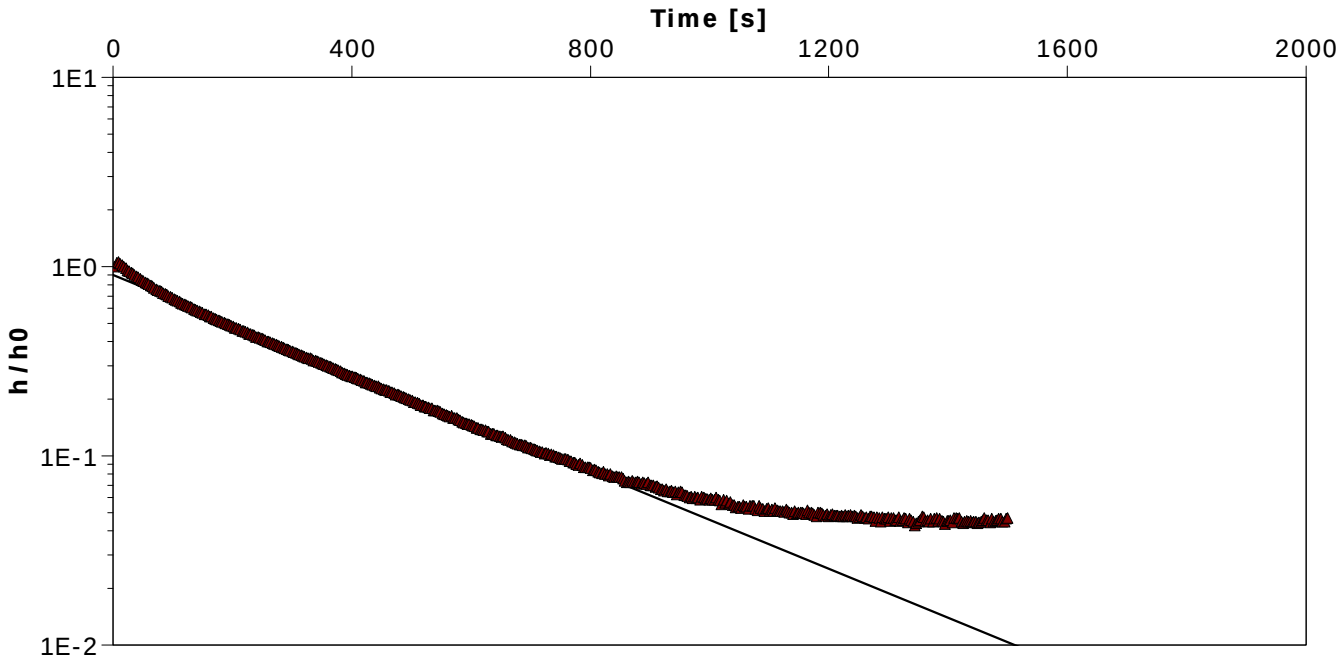


Calculation after Bouwer && Rice

Observation well	K [m/s]	
MW-12-84	4.42×10^{-7}	

	Slug Test Analysis Report
	Project: CFB Trenton - Hangar 5&6 DSI
	Number: 12-308
	Client: DCC

Location: CFB Trenton	Slug Test: MW12-104	Test Well: MW-104
Test conducted by: SLE		Test date: 2012-08-10
Analysis performed by: SLE	Hydraulic Conductivity Test	Date: 2012-09-07
Aquifer Thickness: 2.44 m		

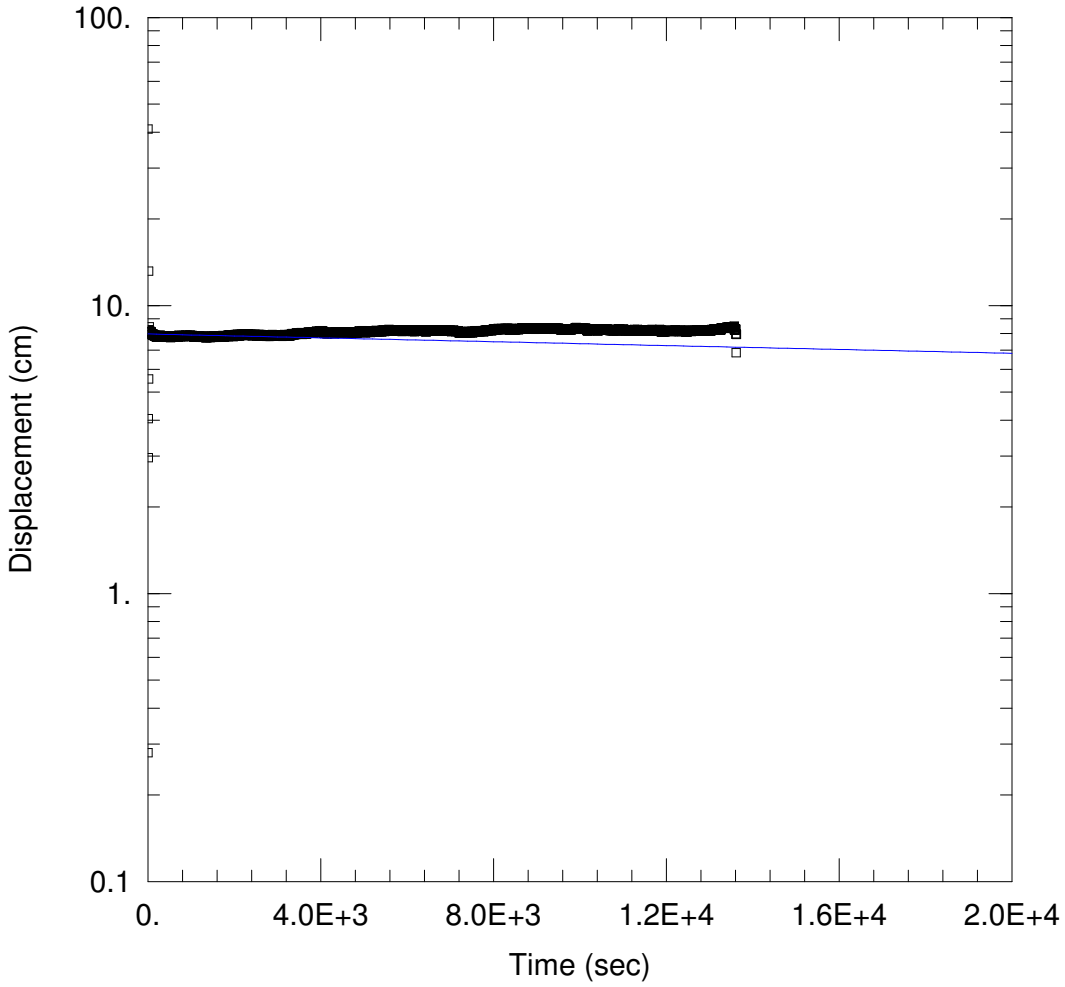


Calculation after Bouwer && Rice

Observation well	K [m/s]	
MW-104	1.28×10^{-6}	

APPENDIX C.2

SHALLOW BEDROCK MONITORING WELLS



HYDRAULIC CONDUCTIVITY ANALYSIS OF MW54B, CFB TRENTON, ON (SLUG IN)

Data Set: C:\...\MW54B (Slug In).aqt
Date: 08/30/12 Time: 11:22:40

PROJECT INFORMATION

Company: SNC-Lavalin
Client: DCC
Location: CFB Trenton
Test Well: MW54B
Test Date: 14 Aug 2012

AQUIFER DATA

Saturated Thickness: 98. cm Anisotropy Ratio (Kz/Kr): 1.

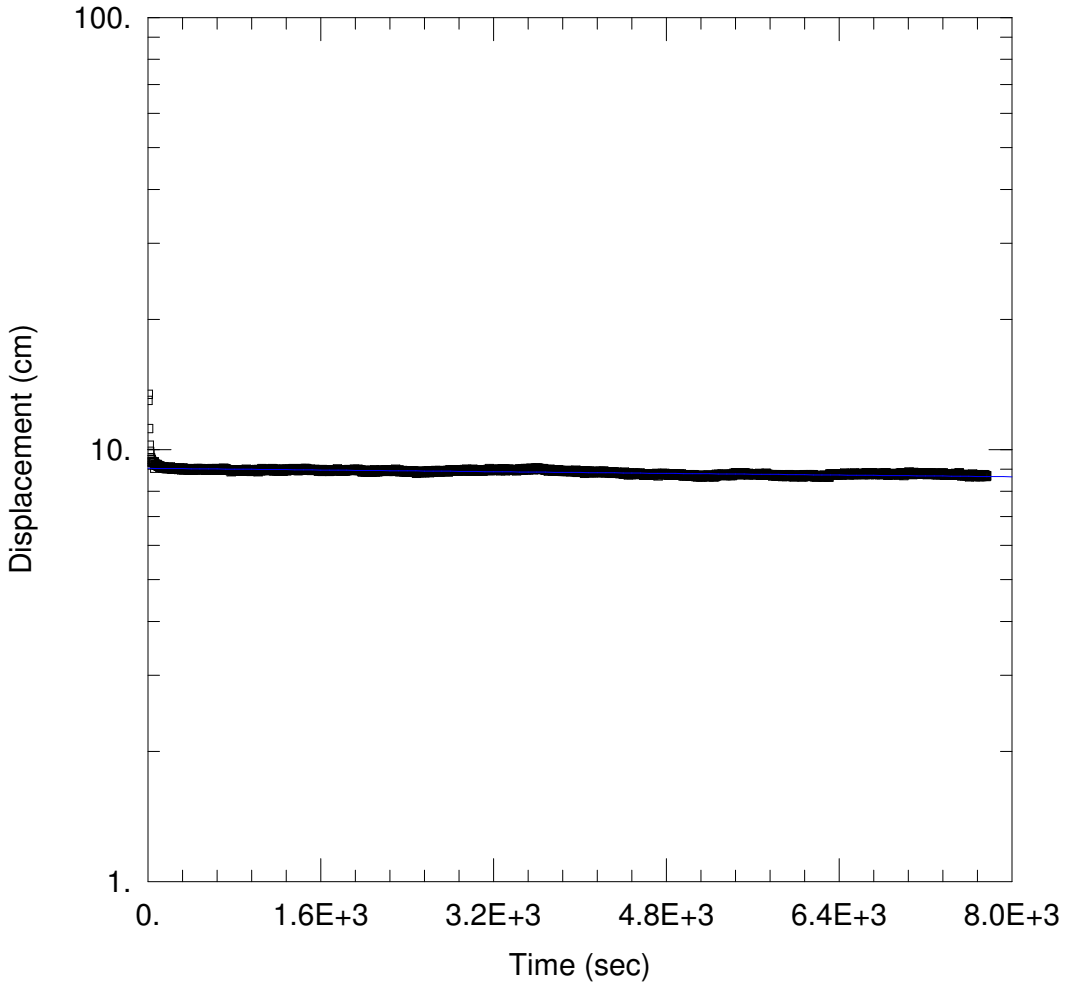
WELL DATA (MW54B)

Initial Displacement: 41. cm
Total Well Penetration Depth: 98. cm
Casing Radius: 1.9 cm
Static Water Column Height: 98. cm
Screen Length: 159. cm
Wellbore Radius: 3.81 cm

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 2.219E-7 cm/sec y0 = 7.964 cm



HYDRAULIC CONDUCTIVITY ANALYSIS OF MW54B, CFB TRENTON, ON (SLUG OUT)

Data Set: C:\...\MW54B (Slug Out).aqt
Date: 08/30/12 Time: 11:25:02

PROJECT INFORMATION

Company: SNC-Lavalin
Client: DCC
Location: CFB Trenton
Test Well: MW54B
Test Date: 14 Aug 2012

AQUIFER DATA

Saturated Thickness: 98. cm Anisotropy Ratio (Kz/Kr): 1.

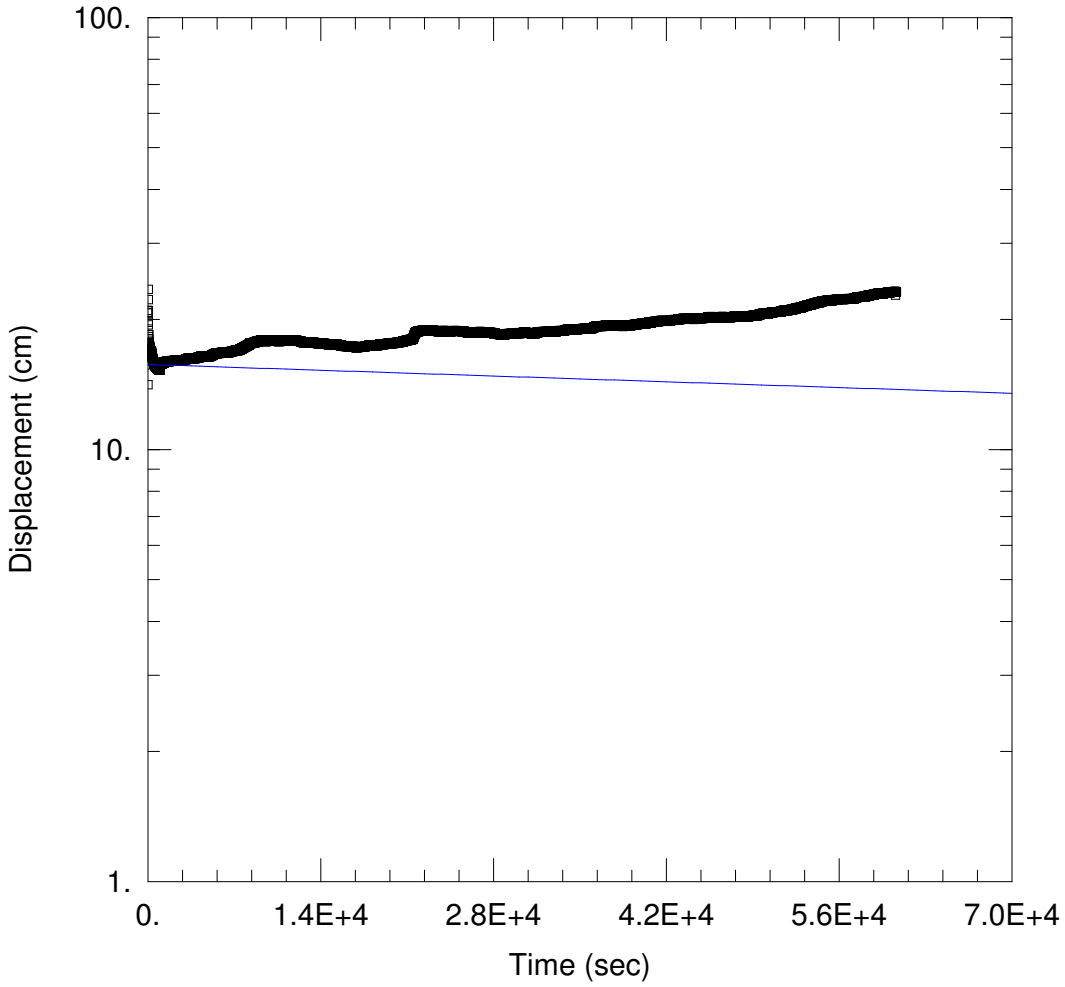
WELL DATA (MW54B)

Initial Displacement: 13. cm
Total Well Penetration Depth: 98. cm
Casing Radius: 1.9 cm
Static Water Column Height: 98. cm
Screen Length: 159. cm
Wellbore Radius: 3.81 cm

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.609E-7 cm/sec y0 = 9.046 cm



HYDRAULIC CONDUCTIVITY ANALYSIS OF MW61B, CFB TRENTON, ON (SLUG IN)

Data Set: C:\...\MW61B (Slug In).aqt
Date: 08/30/12 Time: 11:26:00

PROJECT INFORMATION

Company: SNC-Lavalin
Client: DCC
Location: CFB Trenton
Test Well: MW61B
Test Date: 14 Aug 2012

AQUIFER DATA

Saturated Thickness: 177. cm Anisotropy Ratio (Kz/Kr): 1.

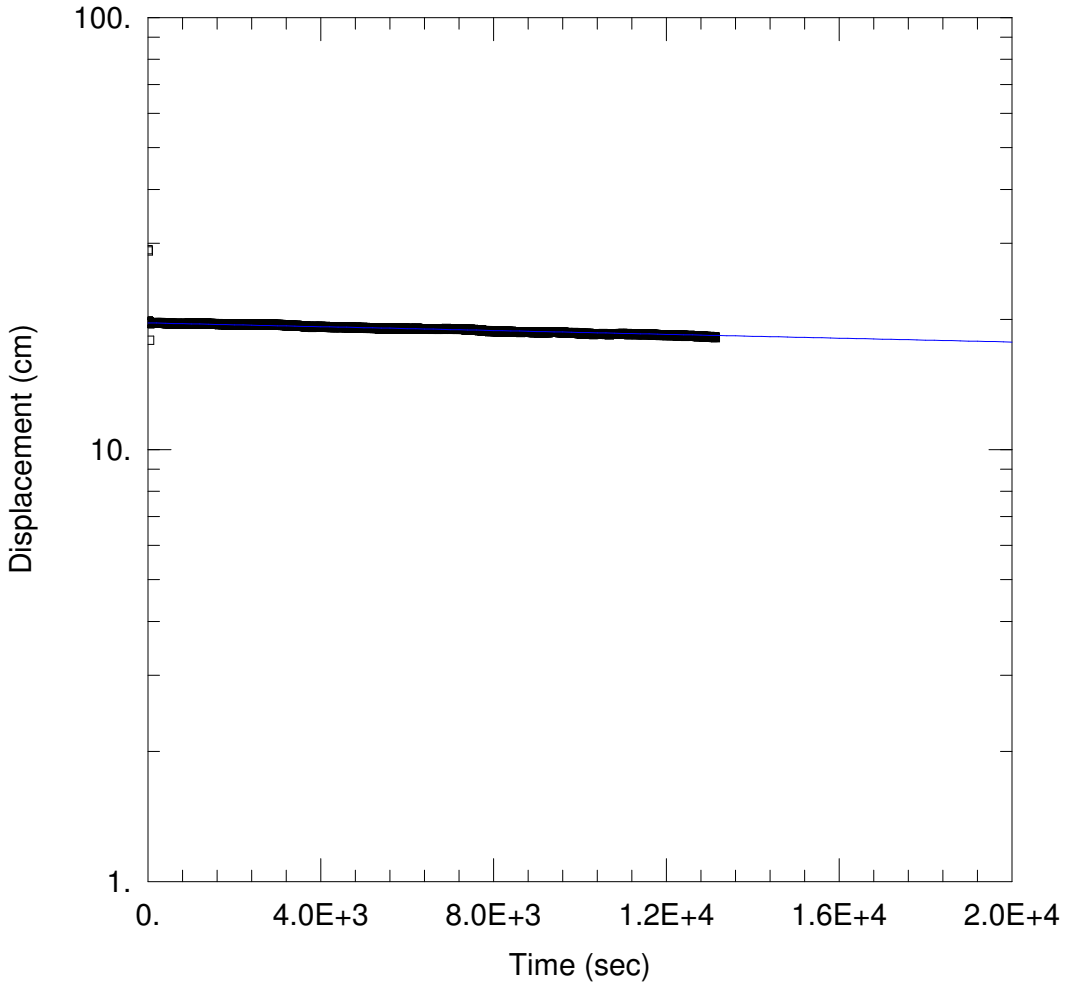
WELL DATA (MW61B)

Initial Displacement: 21. cm
Total Well Penetration Depth: 98. cm
Casing Radius: 1.9 cm
Static Water Column Height: 177. cm
Screen Length: 143. cm
Wellbore Radius: 3.81 cm

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 6.216E-8 cm/sec y0 = 15.73 cm



HYDRAULIC CONDUCTIVITY ANALYSIS OF MW61B, CFB TRENTON, ON (SLUG OUT)

Data Set: C:\...\MW61B (Slug Out).aqt
Date: 08/30/12 Time: 11:27:08

PROJECT INFORMATION

Company: SNC-Lavalin
Client: DCC
Location: CFB Trenton
Test Well: MW61B
Test Date: 14 Aug 2012

AQUIFER DATA

Saturated Thickness: 177. cm Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW61B)

Initial Displacement: 29. cm
Total Well Penetration Depth: 98. cm
Casing Radius: 1.9 cm
Static Water Column Height: 177. cm
Screen Length: 143. cm
Wellbore Radius: 3.81 cm

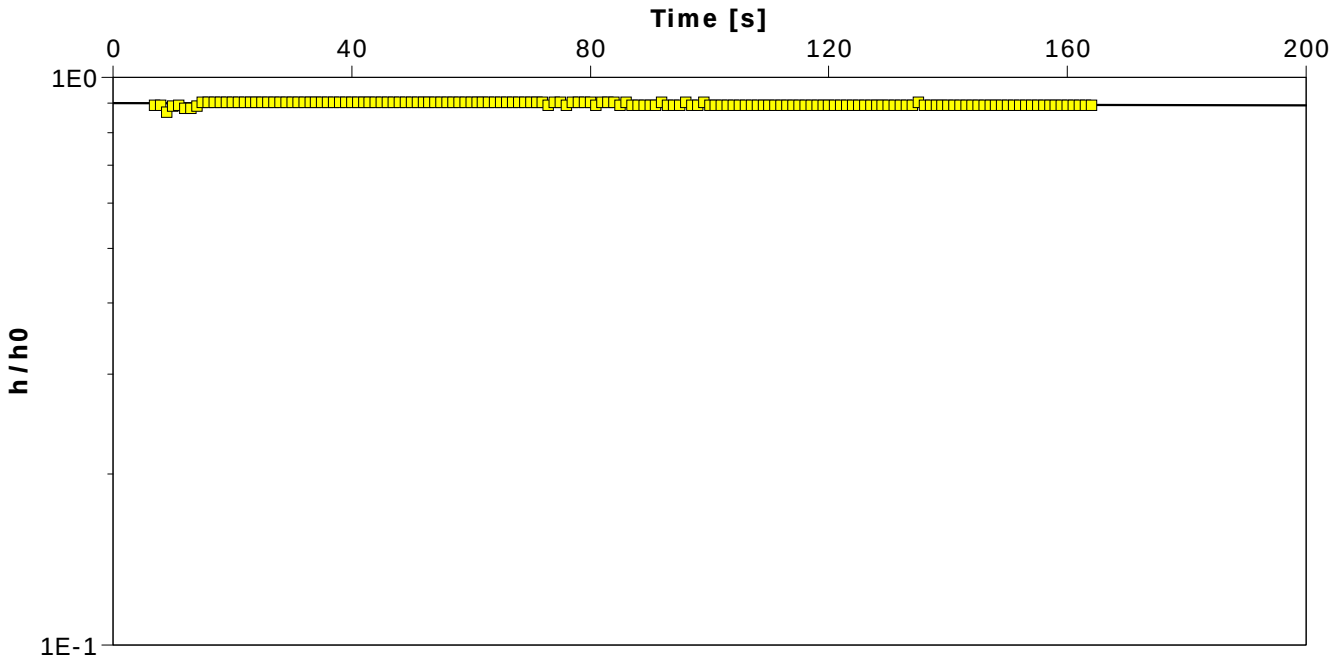
SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.447E-7 cm/sec y0 = 19.64 cm

	Slug Test Analysis Report
	Project: CFB Trenton - Hangar 5&6 DSI
	Number: 12-308
	Client: DCC

Location: CFB Trenton	Slug Test: MW12-77B	Test Well: MW12-77B
Test conducted by: SLE		Test date: 2012-08-10
Analysis performed by: SLE	Hydraulic Conductivity Test	Date: 2012-08-30
Aquifer Thickness:		

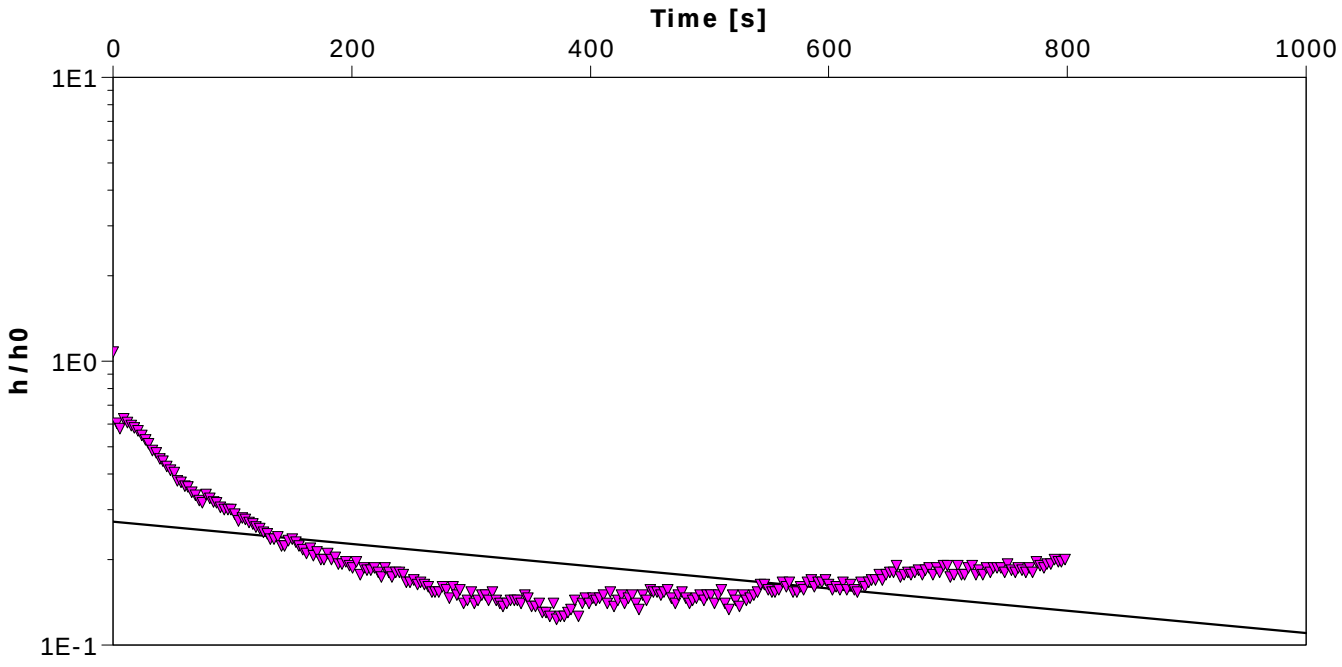


Calculation after Hvorslev

Observation well	K [m/s]	
MW12-77B	2.44×10^{-8}	

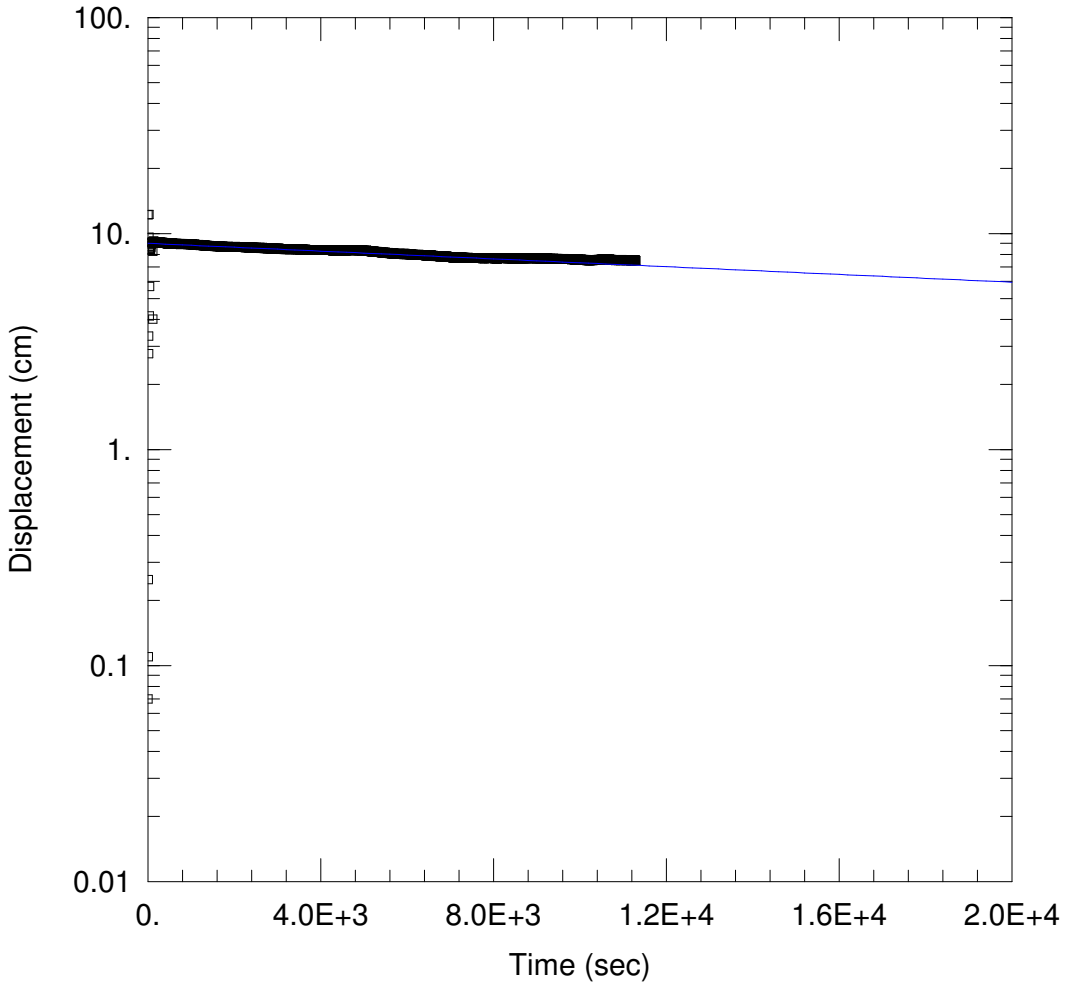
	Slug Test Analysis Report
	Project: CFB Trenton - Hangar 5&6 DSI
	Number: 12-308
	Client: DCC

Location: CFB Trenton	Slug Test: MW12-79B	Test Well: MW12-79B
Test conducted by: SLE		Test date: 2012-08-10
Analysis performed by: SLE	Hydraulic Conductivity Analysis	Date: 2012-08-10
Aquifer Thickness: 10.00 m		



Calculation after Hvorslev

Observation well	K [m/s]	
MW12-79B	3.50×10^{-7}	



HYDRAULIC CONDUCTIVITY ANALYSIS OF MW98B, CFB TRENTON, ON (SLUG IN)

Data Set: C:\...\MW98B (Slug In).aqt
Date: 08/30/12 Time: 11:28:02

PROJECT INFORMATION

Company: SNC-Lavalin
Client: DCC
Location: CFB Trenton
Test Well: MW98B
Test Date: 14 Aug 2012

AQUIFER DATA

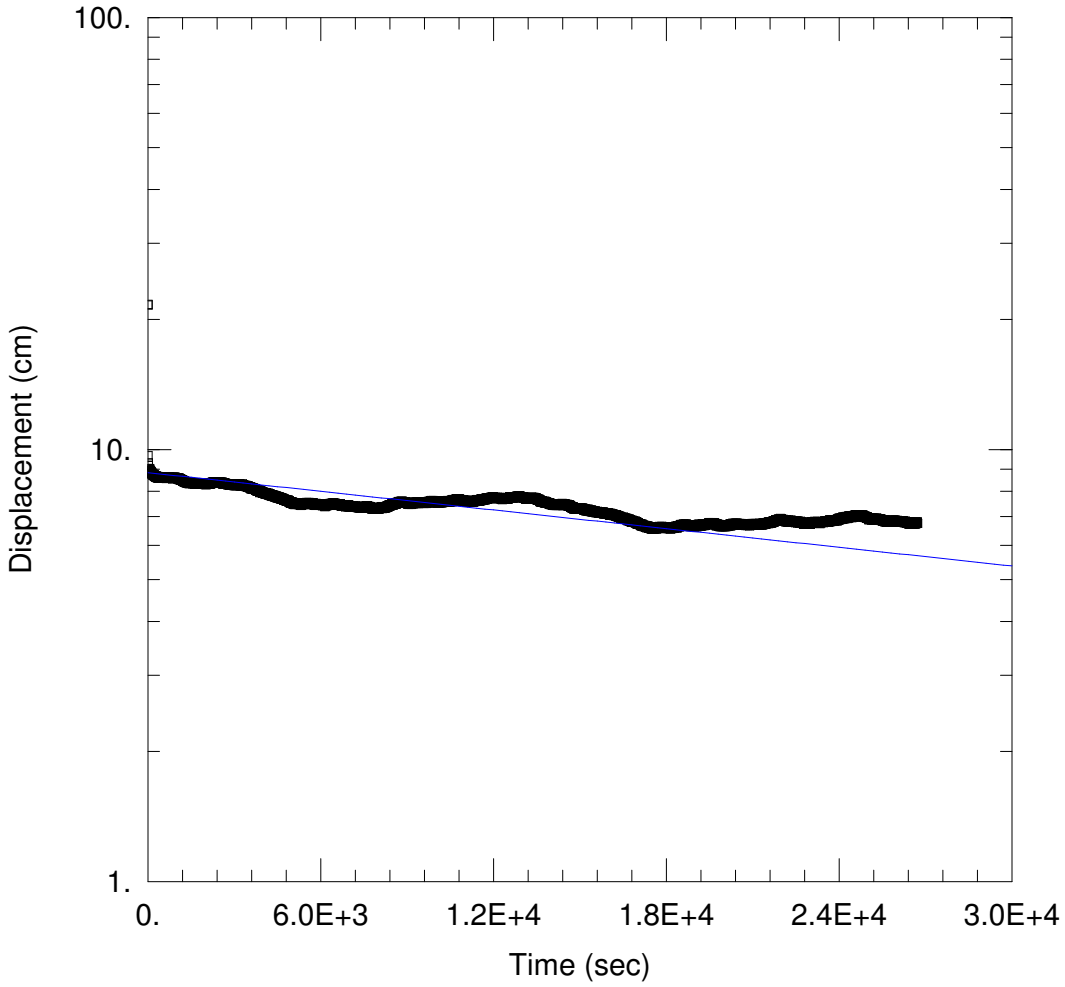
Saturated Thickness: 72. cm Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW98B)

Initial Displacement: 12.2 cm
Total Well Penetration Depth: 72. cm
Casing Radius: 1.9 cm
Static Water Column Height: 72. cm
Screen Length: 150. cm
Wellbore Radius: 3.81 cm

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 5.769E-7 cm/sec
y0 = 9.005 cm



HYDRAULIC CONDUCTIVITY ANALYSIS OF MW98B, CFB TRENTON, ON (SLUG OUT)

Data Set: C:\...\MW98B (Slug Out).aqt
Date: 08/30/12 Time: 11:28:43

PROJECT INFORMATION

Company: SNC-Lavalin
Client: DCC
Location: CFB Trenton
Test Well: MW98B
Test Date: 14 Aug 2012

AQUIFER DATA

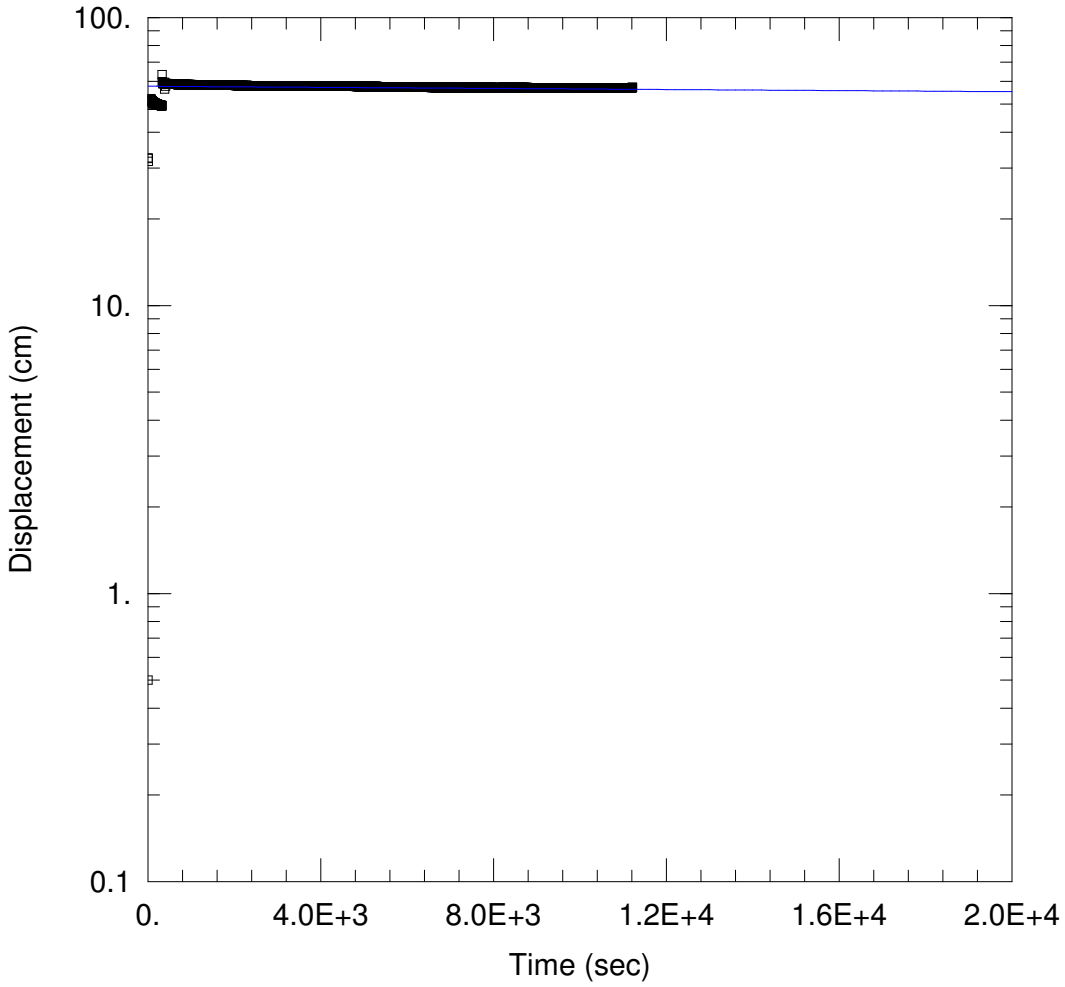
Saturated Thickness: 72. cm
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW98B)

Initial Displacement: 21.6 cm
Total Well Penetration Depth: 72. cm
Casing Radius: 1.9 cm
Static Water Column Height: 72. cm
Screen Length: 150. cm
Wellbore Radius: 3.81 cm

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 4.617E-7 cm/sec
y0 = 8.839 cm



HYDRAULIC CONDUCTIVITY ANALYSIS OF MW99B, CFB TRENTON, ON (SLUG IN)

Data Set: C:\...\MW99B (Slug In).aqt
Date: 08/30/12 Time: 11:29:37

PROJECT INFORMATION

Company: SNC-Lavalin
Client: DCC
Location: CFB Trenton
Test Well: MW99B
Test Date: 14 Aug 2012

AQUIFER DATA

Saturated Thickness: 66.2 cm Anisotropy Ratio (Kz/Kr): 1.

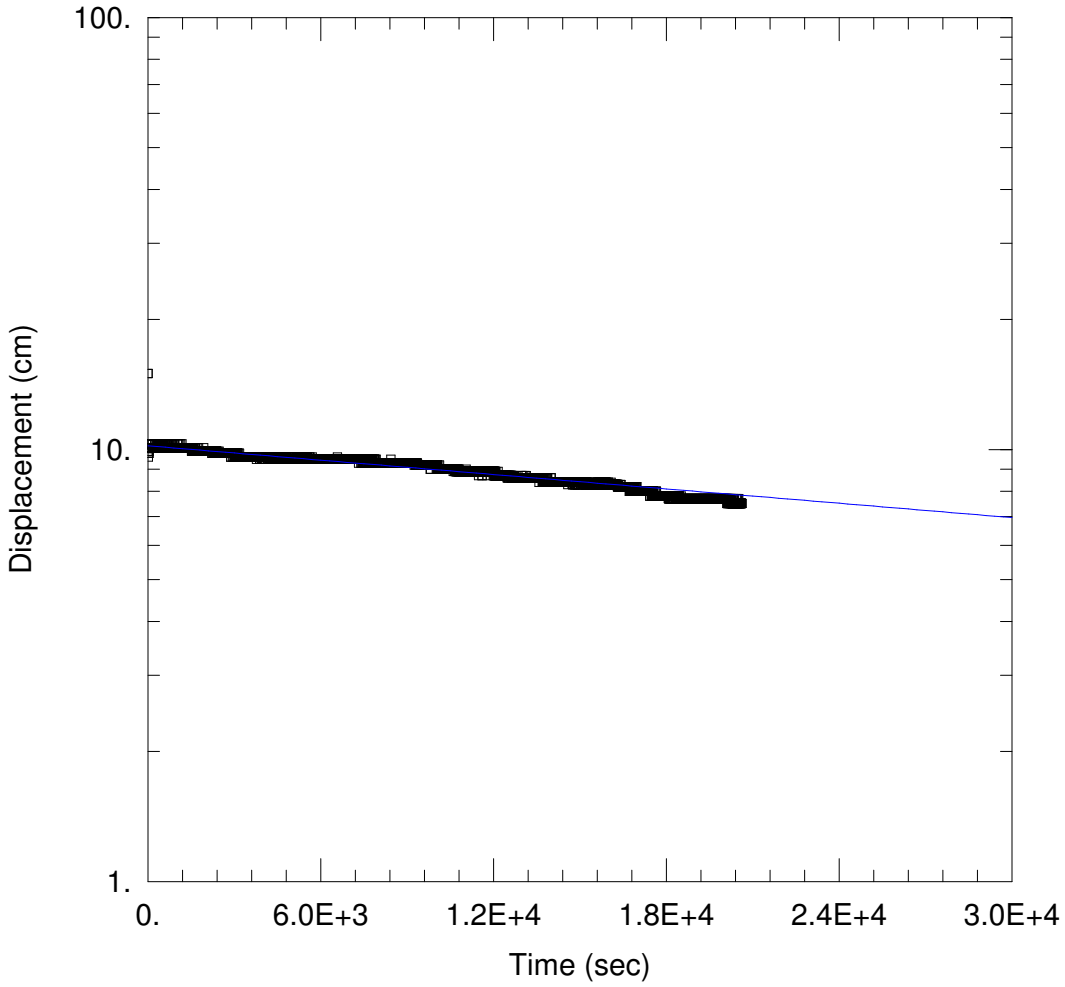
WELL DATA (MW99B)

Initial Displacement: 32.6 cm
Total Well Penetration Depth: 66.2 cm
Casing Radius: 1.9 cm
Static Water Column Height: 66.2 cm
Screen Length: 305. cm
Wellbore Radius: 3.81 cm

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 2.993E-8 cm/sec y0 = 57.72 cm



HYDRAULIC CONDUCTIVITY ANALYSIS OF MW101B, CFB TRENTON, ON (SLUG IN)

Data Set: C:\...\MW101B (Slug In).aqt
Date: 08/30/12 Time: 11:31:42

PROJECT INFORMATION

Company: SNC-Lavalin
Client: DCC
Location: CFB Trenton
Test Well: MW101B
Test Date: 14 Aug 2012

AQUIFER DATA

Saturated Thickness: 110. cm Anisotropy Ratio (Kz/Kr): 1.

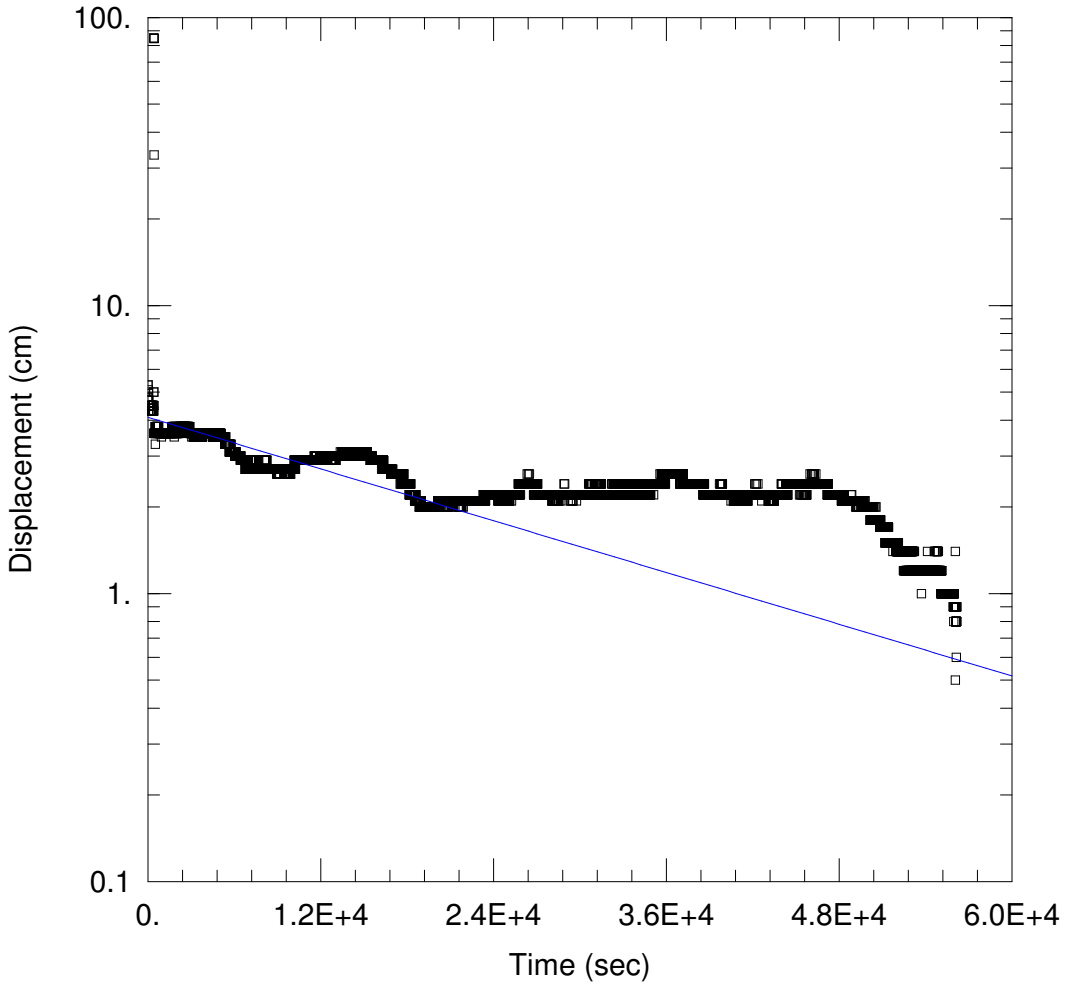
WELL DATA (MW101B)

Initial Displacement: 15. cm
Total Well Penetration Depth: 110. cm
Casing Radius: 2.54 cm
Static Water Column Height: 110. cm
Screen Length: 150. cm
Wellbore Radius: 3.81 cm

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 7.131E-7 cm/sec y0 = 10.2 cm



HYDRAULIC CONDUCTIVITY ANALYSIS OF MW101B, CFB TRENTON, ON (SLUG OUT)

Data Set: C:\...\MW101B (Slug Out).aqt
Date: 08/30/12 Time: 11:32:28

PROJECT INFORMATION

Company: SNC-Lavalin
Client: DCC
Location: CFB Trenton
Test Well: MW101B
Test Date: 14 Aug 2012

AQUIFER DATA

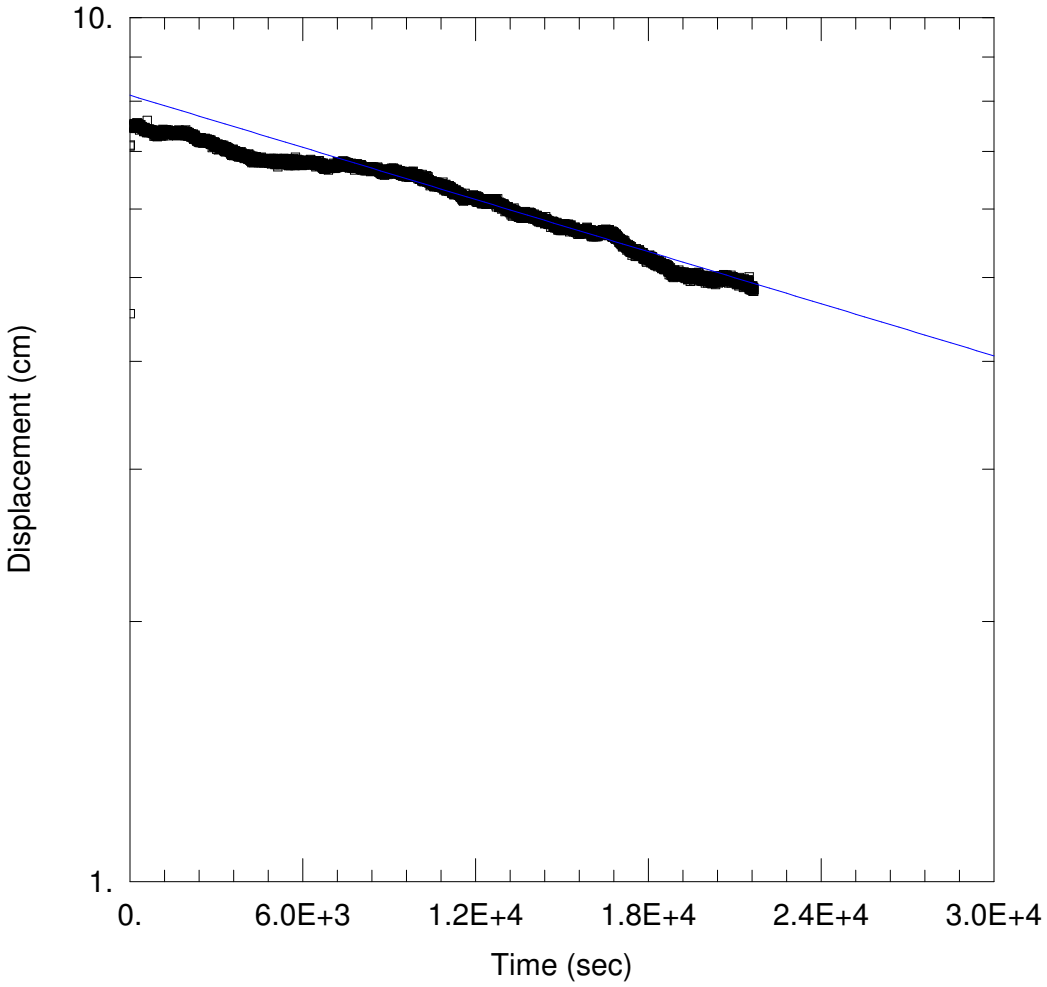
Saturated Thickness: 110. cm
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW101B)

Initial Displacement: 5.3 cm
Total Well Penetration Depth: 110. cm
Casing Radius: 2.54 cm
Static Water Column Height: 110. cm
Screen Length: 150. cm
Wellbore Radius: 3.81 cm

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 1.927E-6 cm/sec
y0 = 4.094 cm



HYDRAULIC CONDUCTIVITY ANALYSIS OF MW102B, CFB TRENTON, ON (SLUG IN)

Data Set: C:\...\MW102B (Slug In).aqt
Date: 08/30/12 Time: 11:34:22

PROJECT INFORMATION

Company: SNC-Lavalin
Client: DCC
Location: CFB Trenton
Test Well: MW102B
Test Date: 14 Aug 2012

AQUIFER DATA

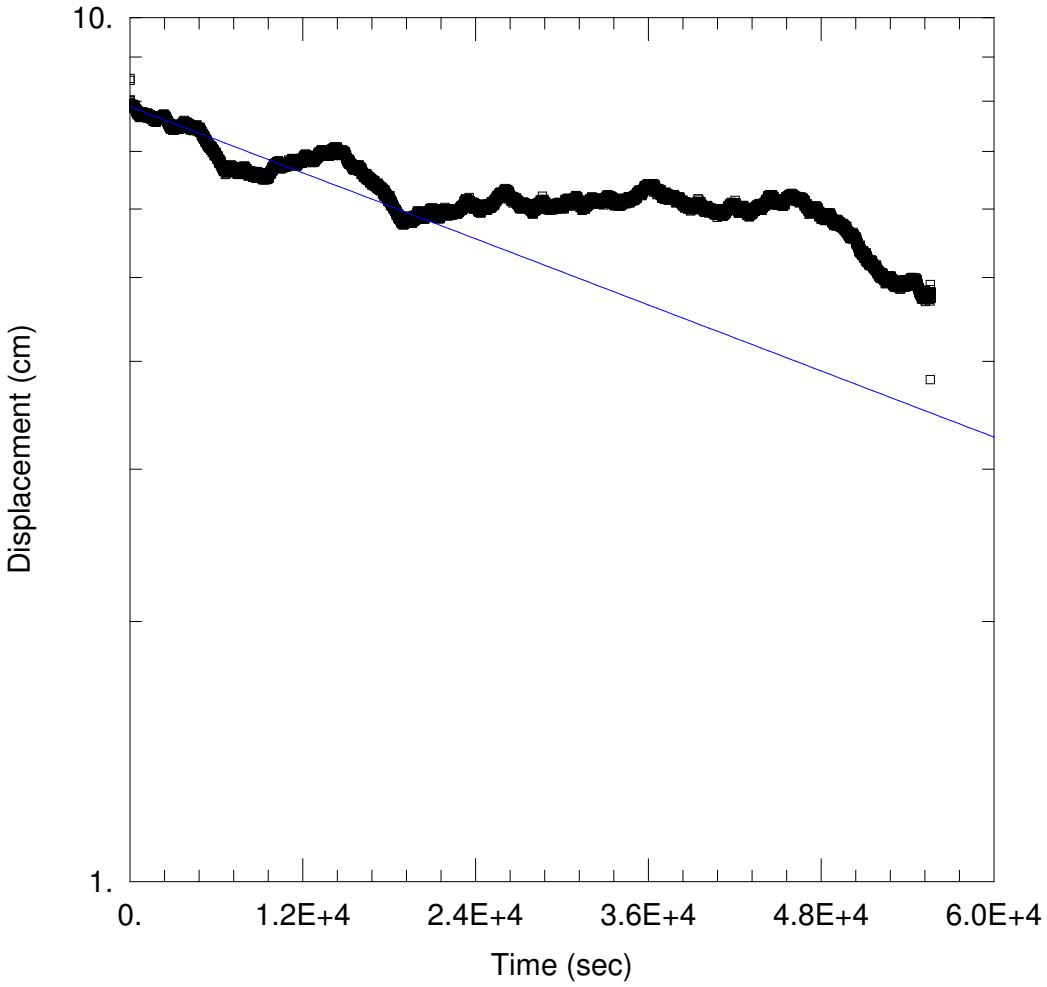
Saturated Thickness: 73. cm Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW102B)

Initial Displacement: 7.5 cm
Total Well Penetration Depth: 73. cm
Casing Radius: 2.54 cm
Static Water Column Height: 73. cm
Screen Length: 129. cm
Wellbore Radius: 3.81 cm

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 1.333E-6 cm/sec
y0 = 8.129 cm



HYDRAULIC CONDUCTIVITY ANALYSIS OF MW102B, CFB TRENTON, ON (SLUG OUT)

Data Set: C:\...\MW102B (Slug Out).aqt
Date: 08/30/12 Time: 11:35:11

PROJECT INFORMATION

Company: SNC-Lavalin
Client: DCC
Location: CFB Trenton
Test Well: MW102B
Test Date: 14 Aug 2012

AQUIFER DATA

Saturated Thickness: 73. cm
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW102B)

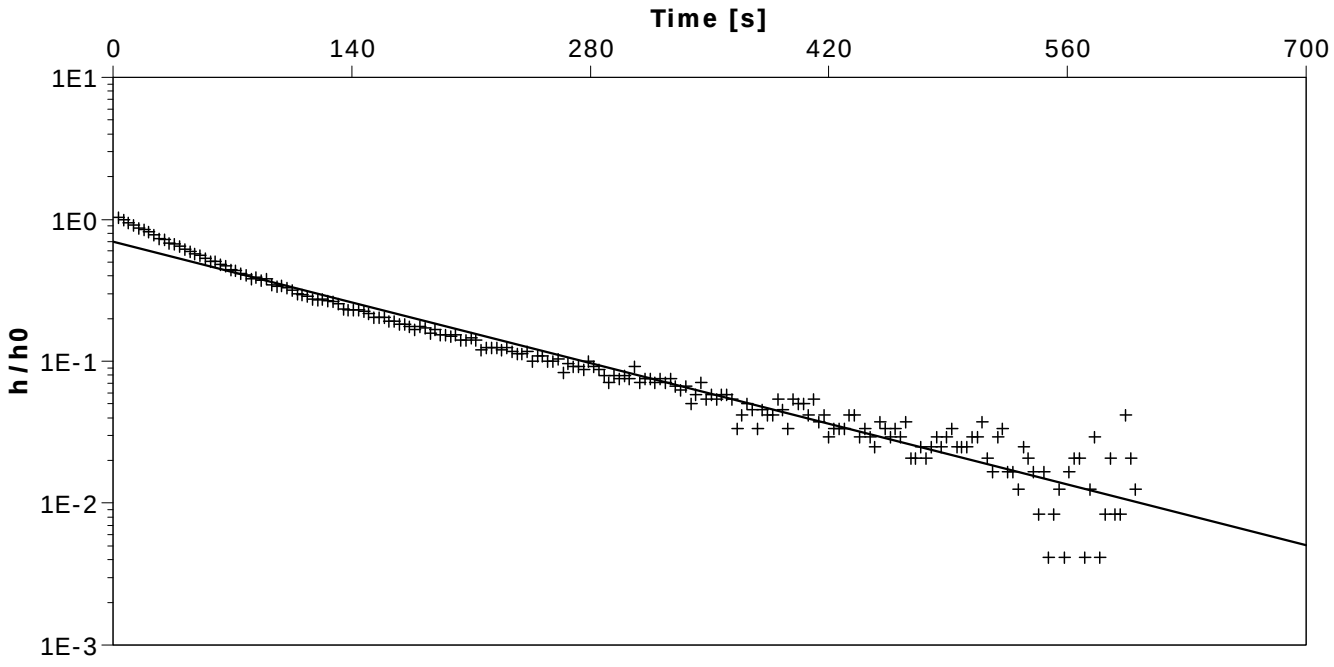
Initial Displacement: 8.5 cm
Total Well Penetration Depth: 73. cm
Casing Radius: 2.54 cm
Static Water Column Height: 73. cm
Screen Length: 129. cm
Wellbore Radius: 3.81 cm

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 8.449E-7 cm/sec
y0 = 7.886 cm

	Slug Test Analysis Report
	Project: CFB Trenton - Hangar 5&6 DSI
	Number: 12-308
	Client: DCC

Location: CFB Trenton	Slug Test: MW12-104B	Test Well: MW12-104B
Test conducted by: SLE		Test date: 2012-08-09
Analysis performed by: SLE	Hydraulic Conductivity Test	Date: 2012-08-10
Aquifer Thickness: 3.00 m		



Calculation after Hvorslev

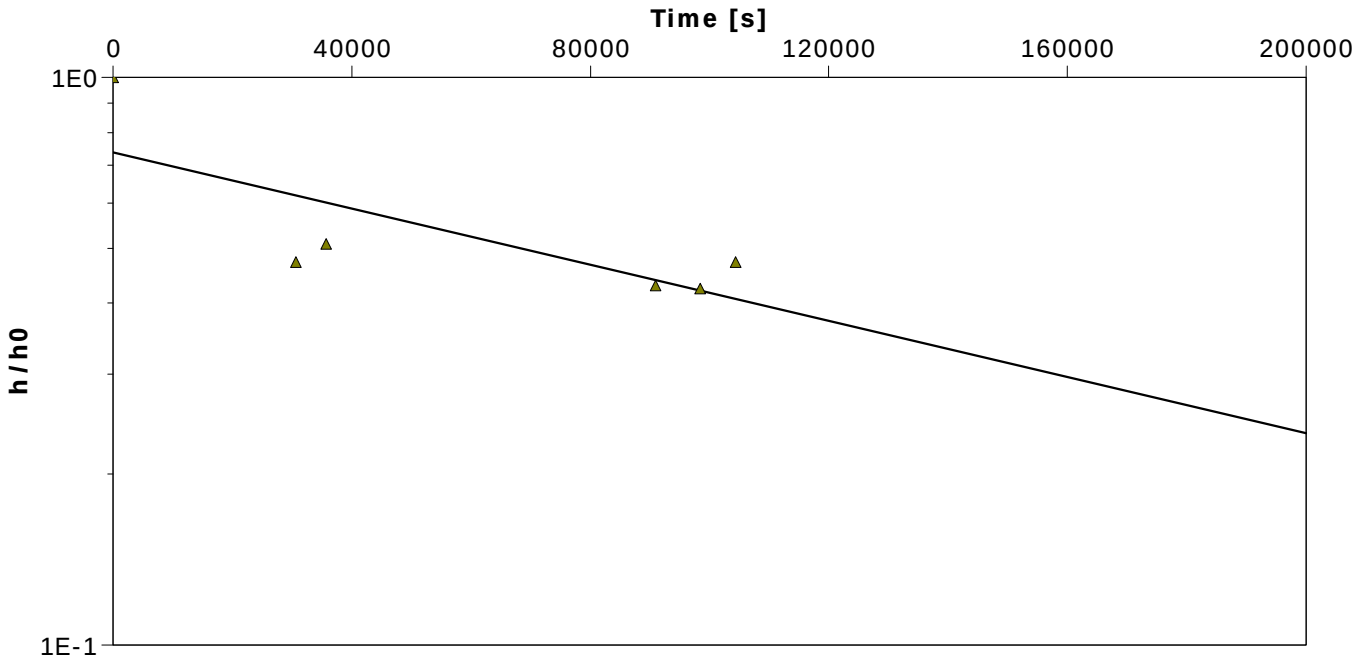
Observation well	K [m/s]	
MW12-104B	2.84×10^{-6}	

APPENDIX C.3

DEEP BEDROCK MONITORING WELLS

	Slug Test Analysis Report
	Project: CFB Trenton - Hangar 5&6 DSI
	Number: 12-308
	Client: DCC

Location: CFB Trenton	Slug Test: MW12-61A	Test Well: MW12-61A
Test conducted by: SLE		Test date: 2012-08-14
Analysis performed by: SLE	Hydraulic Conductivity Test	Date: 2012-08-30
Aquifer Thickness: 3.00 m		

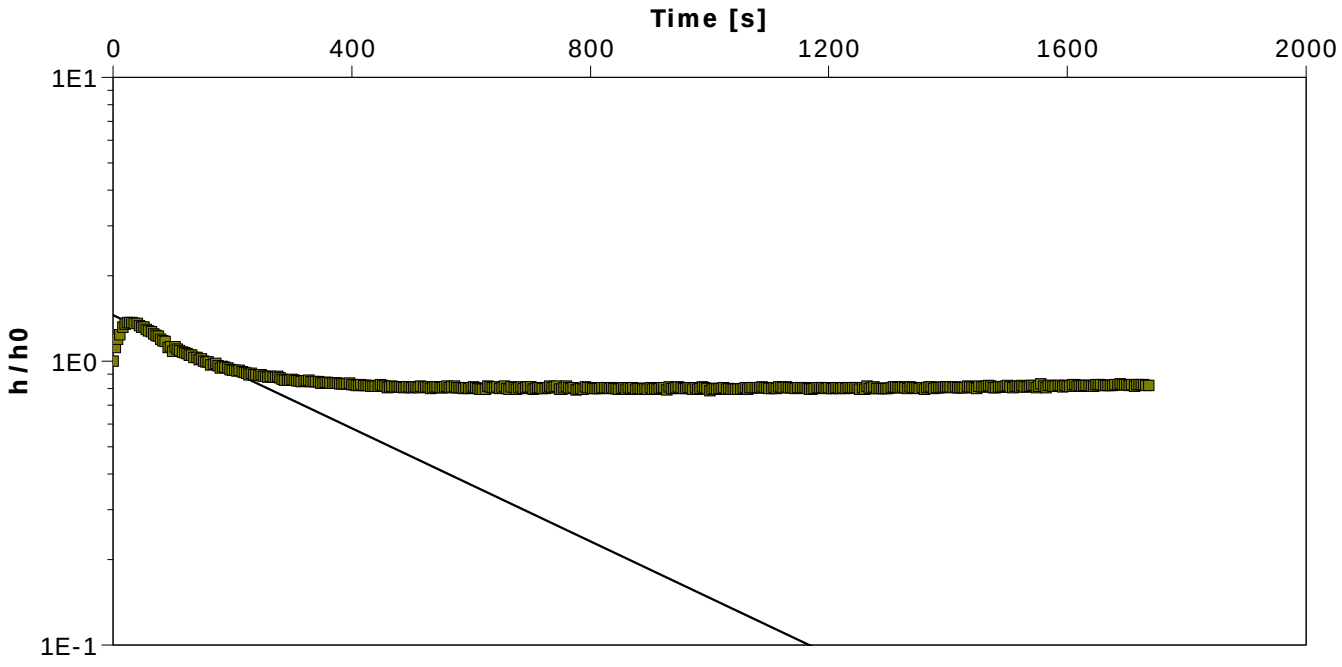


Calculation after Bouwer && Rice

Observation well	K [m/s]	
MW12-61A	1.18×10^{-9}	

	Slug Test Analysis Report
	Project: CFB Trenton - Hangar 5&6 DSI
	Number: 12-308
	Client: DCC

Location: CFB Trenton	Slug Test: MW12-79A	Test Well: MW12-79A
Test conducted by: SLE		Test date: 2012-08-13
Analysis performed by: SLE	Hydraulic Conductivity Test	Date: 2012-08-30
Aquifer Thickness:		

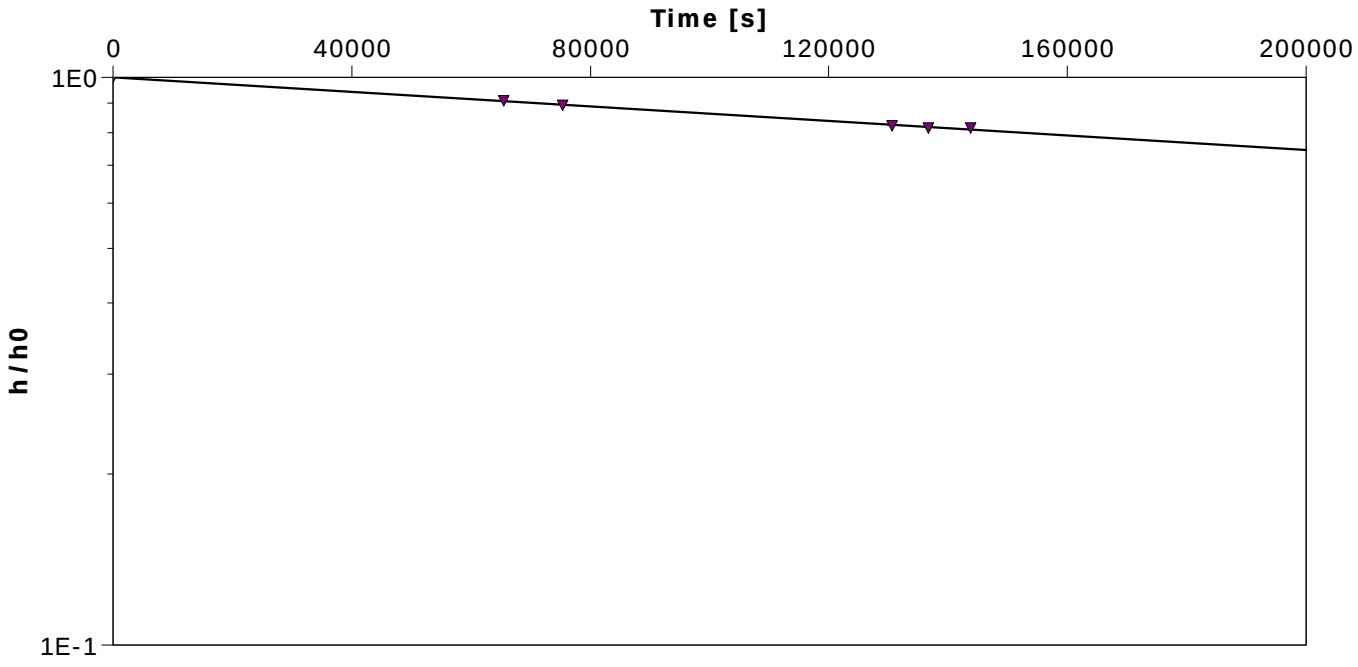


Calculation after Hvorslev

Observation well	K [m/s]	
MW12-79A	8.61×10^{-7}	

	Slug Test Analysis Report
	Project: CFB Trenton - Hangar 5&6 DSI
	Number: 12-308
	Client: DCC

Location: CFB Trenton	Slug Test: MW12-98A	Test Well: MW12-98A
Test conducted by: SLE		Test date: 2012-08-14
Analysis performed by: SLE	Hydraulic Conductivity Test	Date: 2012-08-30
Aquifer Thickness:		

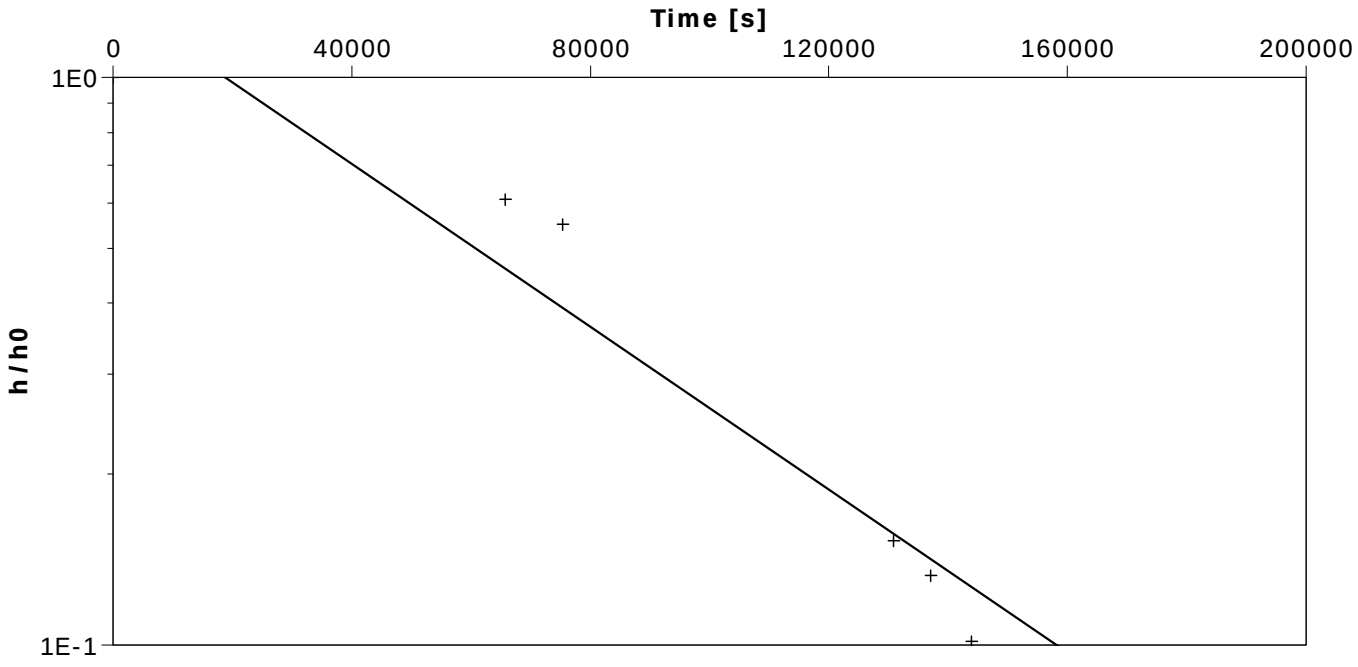


Calculation after Hvorslev

Observation well	K [m/s]	
MW12-98A	3.85×10^{-10}	

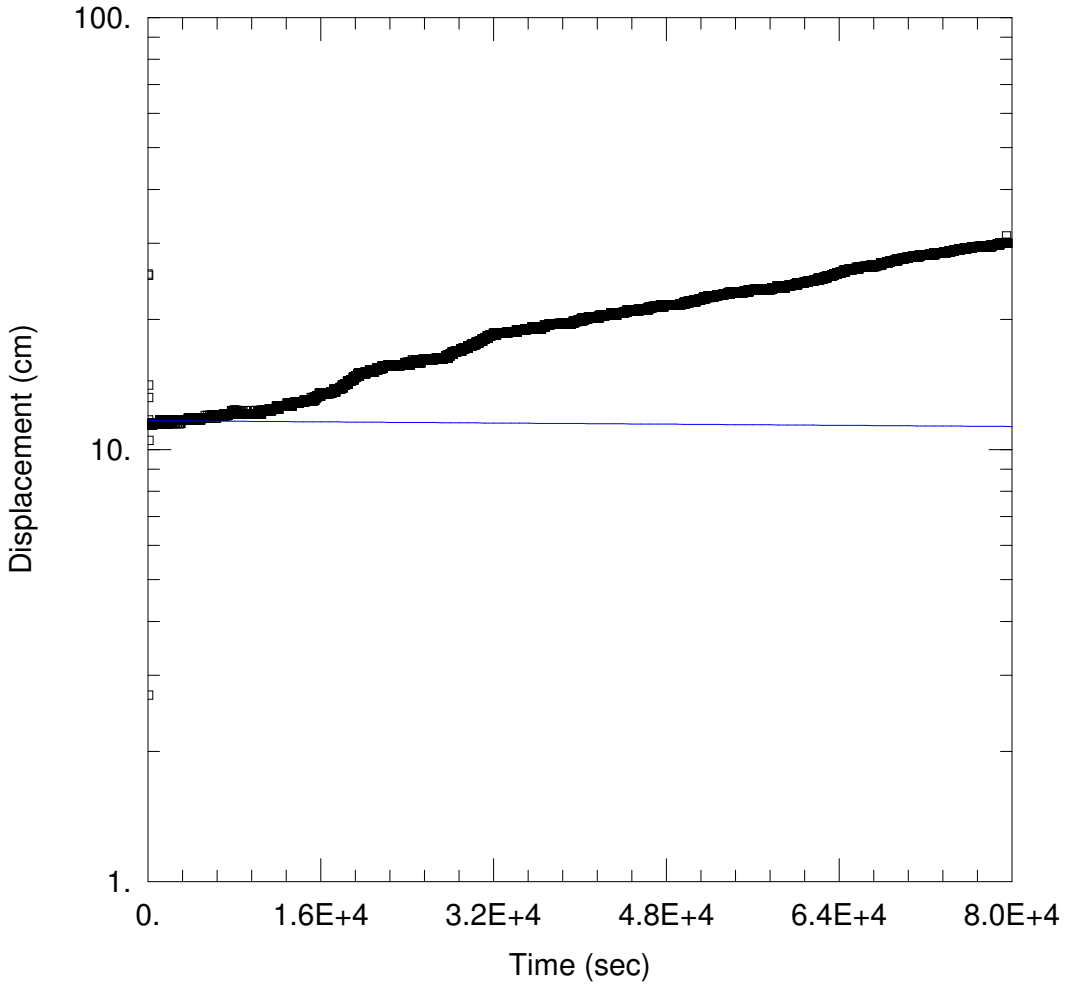
	Slug Test Analysis Report
	Project: CFB Trenton - Hangar 5&6 DSI
	Number: 12-308
	Client: DCC

Location: CFB Trenton	Slug Test: MW12-99A	Test Well: MW12-99A
Test conducted by: SLE		Test date: 2012-08-14
Analysis performed by: SLE	Hydraulic Conductivity Test	Date: 2012-08-30
Aquifer Thickness:		



Calculation after Hvorslev

Observation well	K [m/s]	
MW12-99A	4.30×10^{-9}	



HYDRAULIC CONDUCTIVITY ANALYSIS OF MW101A, CFB TRENTON, ON (SLUG IN)

Data Set: C:\...\MW101A (Slug In).aqt
Date: 08/30/12 Time: 11:30:38

PROJECT INFORMATION

Company: SNC-Lavalin
Client: DCC
Location: CFB Trenton
Test Well: MW101A
Test Date: 14 Aug 2012

AQUIFER DATA

Saturated Thickness: 373. cm Anisotropy Ratio (Kz/Kr): 1.

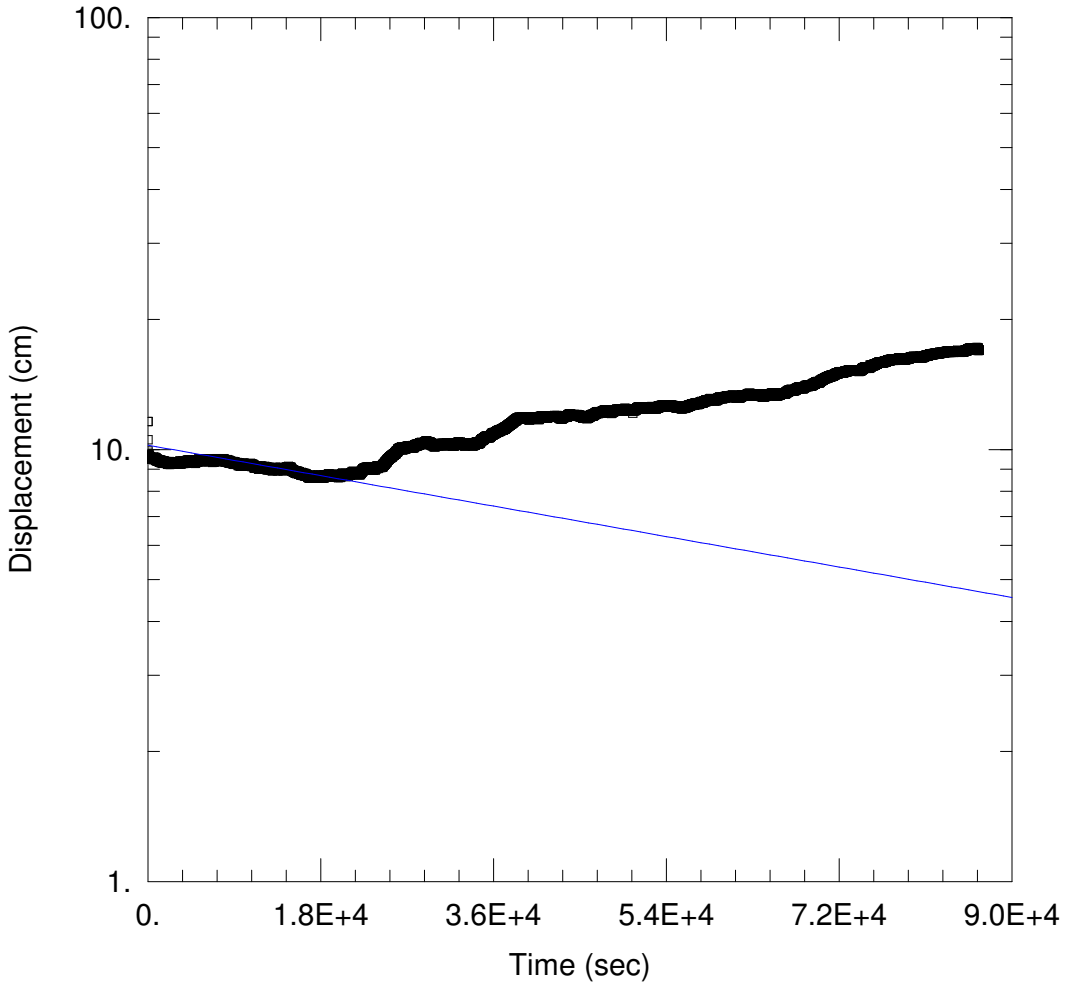
WELL DATA (MW101A)

Initial Displacement: 25.5 cm Static Water Column Height: 373. cm
Total Well Penetration Depth: 373. cm Screen Length: 305. cm
Casing Radius: 2.54 cm Wellbore Radius: 3.81 cm

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.425E-8 cm/sec y0 = 11.66 cm



HYDRAULIC CONDUCTIVITY ANALYSIS OF MW102A, CFB TRENTON, ON (SLUG IN)

Data Set: C:\...\MW102A (Slug In).aqt
Date: 08/30/12 Time: 11:33:19

PROJECT INFORMATION

Company: SNC-Lavalin
Client: DCC
Location: CFB Trenton
Test Well: MW102A
Test Date: 14 Aug 2012

AQUIFER DATA

Saturated Thickness: 200. cm Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW102A)

Initial Displacement: 11.6 cm
Total Well Penetration Depth: 200. cm
Casing Radius: 2.54 cm
Static Water Column Height: 200. cm
Screen Length: 305. cm
Wellbore Radius: 3.81 cm

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 2.947E-7 cm/sec y0 = 10.23 cm

Attachment 2: Borehole and Monitoring Well Logs of Wells to be Decommissioned

SNC·LAVALIN Environment

Borehole ID: BH12-26

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: August 9 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.60
0	0								ASPHALT	
1			BH12-26 (0-1)				52%		SAND AND GRAVEL FILL dry, grey	
			BH12-26 (1-2				52%			
2									SAND black, coarse, no odour	80.00
3	1		BH12-23 (2-4)				52%		SAND, SILT, AND GRAVEL brown, compact	
4									CLAYEY SILT black to dark grey, compact	
5										
6	2								End of hole at 1.52 m bgs	79.00
7										
8										
9										78.00
10	3									
11										
12										77.00
13	4									
14										
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-26

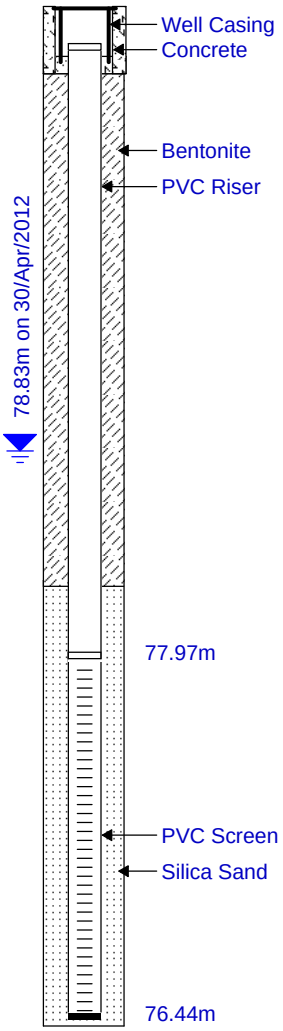
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm
Monitoring Well Diameter: 32 mm

Drilling Company: Downing`
Drilling Equipment: Geoprobe
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.71
0 / 0								ASPHALT	
1		BH12-26 (1-2)		40	0	25%		SAND FILL moist, brown	
2									
3 / 1		BH12-26 (2-4)	◆	45	0	25%			80.00
4									
5		BH12-26 (4-6)		55	0	35%			
6 / 2									79.00
7		BH12-26 (6-8)		45	0	30%		CLAY moist, brown	
8									
9		BH12-26 (8-10)	◆	50	0	-		slight PHC odor	78.00
10 / 3									
11		BH12-26 (10-12)		-	-	-		Note: used HSA for well installation and geoprobe for stratigraphy	
12									77.00
13 / 4		BH12-26 (12-14)		-	-	-			
14									
15								Refusal at 4.3 m bgs using HSA	

Top of Riser Elev.= 80.52 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-27

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 20 April 2012 / July 25 2012
Site Datum: Geodetic

SLE Supervisor: Brian S. / Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing / Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.54
0	0		BH12-27 (0-1)		140	0	100%		ASPHALT	
1			BH12-27 (1-2)		140	0	100%		SAND AND GRAVEL FILL dry, brown/black	
2			BH12-27 (2-4)		210	42	100%		SILTY SAND FILL moist, black, PHC odors	80.00
3	1									
4			BH12-27 (4-6)		165	42	70%		brown/grey	
5									CLAY moist, grey	79.00
6			BH12-27 (6-8)		140	32	70%			
7	2									
8			BH12-27 (8-10)		160	8	40%		SILTY SAND moist, grey	78.00
9										
10	3		BH12-27 (10-11)		150	2	40%			
11									Refusal at 3.4 m bgs	77.00
12										
13	4									
14										
15										76.00

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-27

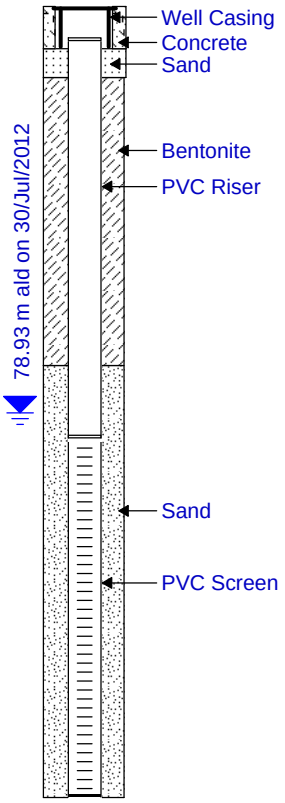
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 25 July 2012
Site Datum: Geodetic

SLE Supervisor: EV
Drilling Method: Direct-Push
Borehole Diameter: 83 mm
Monitoring Well Diameter: 51mm (2")

Drilling Company: Strata
Drilling Equipment: Geoprobe
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.65
0 – 2 ft / 0 – 1 m		BH12-27		-	-	-		refer to BH12-27	
8 – 10 ft / 2 – 3 m		BH12-27 (8-11)		0	21	86%		GRAVELLY CLAY brown, moist, odour at 2.4 mbgs SILTY SAND AND GRAVEL brown, moist, very dense	78.00
11 – 15 ft / 3 – 4 m								Refusal at 3.35m bgs	77.00

Top of Riser Elev.= 80.52 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-54

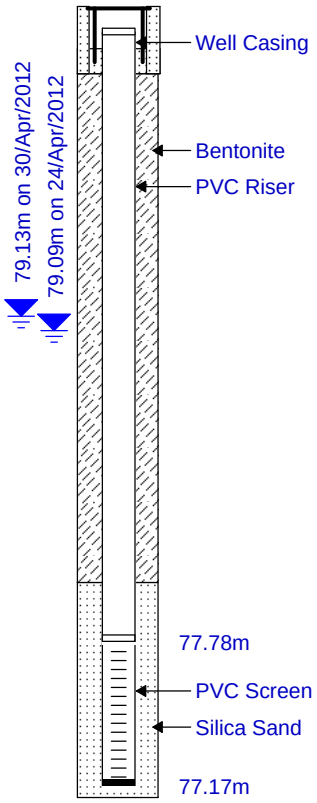
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 20 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 250 mm
Monitoring Well Diameter: 32 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.47
								CONCRETE	
0–1 / 0	-	BH12-54 (0-2)		140	0	100%		SAND AND GRAVEL FILL dry, brown	
								SILTY SAND FILL dry, brown	80.00
2–3 / 1	-	BH12-54 (2-4)		135	0	100%		moist	
4–5	-	BH12-54 (4-6)		130	0	100%			79.00
6–7 / 2	-	BH12-54 (6-8)		155	8	100%		CLAY moist, brown	
8–9	-	BH12-54 (8-10)	◆	300	290	100%		SILTY SAND moist, brown, solvent odors	78.00
10 / 3	-	BH12-54 (10-11)		300	270	100%			
11–12								Refusal at 3.4 m bgs	77.00
13 / 4									
14–15									76.00

Top of Riser Elev.= 80.40 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-54B

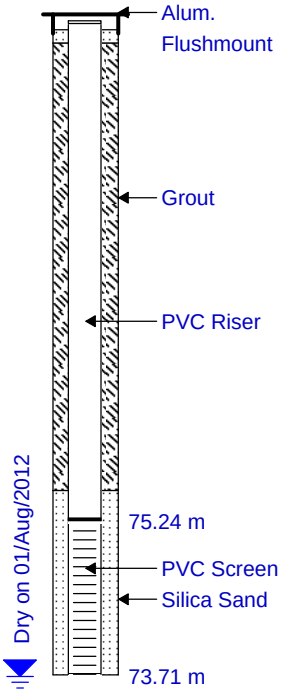
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 31 July 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.43
0–1 ft / 0 m	-	BH/MW12-54B (0-1)		0	0	100%		CONCRETE	
1–3 ft / 0–1 m	-	BH/MW12-54B (1-3.5)		0	2	100%		SAND FILL dry, brown, some gravel and clay	
3–6 ft / 1–2 m	-	BH/MW12-54B (3.5-6)		-	-	100%		SANDY CLAY dry to moist, brown	79.00
6–13 ft / 2–4 m	-	-		-	-	-		Soil Lithology/Sampling not conducted.	78.00 77.00
13–20 ft / 4–6 m	-	-		-	-	-		LIMESTONE	76.00 75.00
20–35 ft / 6–10 m								End of Borehole at 6.55 m bgs.	74.00 73.00 72.00 71.00 70.00

Top of Riser Elev.= 80.33 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-61

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 27 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Downing
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft)	DEPTH (m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
									Ground Surface	80.26
0	0								CONCRETE	
1			BH12-61 (0-2)		50	0	85%		SAND AND GRAVEL FILL dry, brown	80.00
2										
3	1		BH12-61 (2-4)		65	0	85%		SILTY SAND FILL moist, grey, with some clay	
4										
5			BH12-61 (4-6)		55	0	100%			79.00
6										
7	2		BH12-61 (6-8)		55	0	100%		CLAY moist, brown	78.00
8										
9			BH12-61 (8-10)		55	6	100%		solvent odors	
10	3		BH12-61 (10-11)	◆	70	12	100%		SILTY SAND moist, brown, solvent odors	77.00
11									Refusal at 3.4 m bgs	
12										
13	4									
14										76.00
15										

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-61

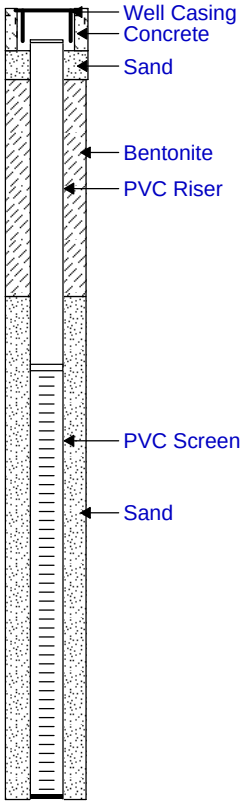
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 27 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm
Monitoring Well Diameter: 51mm (2")

Drilling Company: Strata
Drilling Equipment: Geoprobe
Well Casing:
Well Screen:
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.71
0–1 / 0		BH12-61 (0-2)		0	1	74%		ASPHALT SAND AND GRAVEL moist, brown SILTY CLAY moist, dark brown, trace rocks	
1–2 / 0–1		BH12-61 (2-4)		0	1	74%		orange to brown, trace rocks	80.00
2–3 / 1		BH12-61 (4-6)		0	1	100%		moist, light brown to grey, dense	79.00
3–4 / 1–2		BH12-104 (6-8)		0	14	100%		soft	
3 / 2		BH12-61 (8-9)		0	29	87%		dark grey, extreme odour	78.00
3–4 / 2		BH12-61 (9-10)		0	17	87%		light grey to olive, trong odour	
4 / 2–3								Refusal at 3.35m bgs	77.00

Top of Riser Elev.= 80.52 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-61A

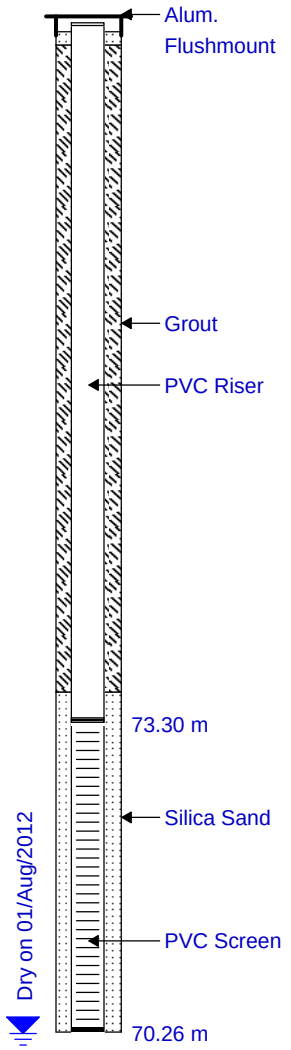
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 31 July 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.44
0–13 / 0–4	-	-		-	-	-		Soil Lithology/Sampling not conducted.	79.00 – 78.00 – 77.00
13–33 / 4–10	-	-		-	-	-		LIMESTONE	76.00 – 75.00 – 74.00 – 73.00 – 72.00 – 71.00
33 / 10								End of Borehole at 10.1 m bgs.	70.00

Top of Riser Elev.= 80.34 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-61B

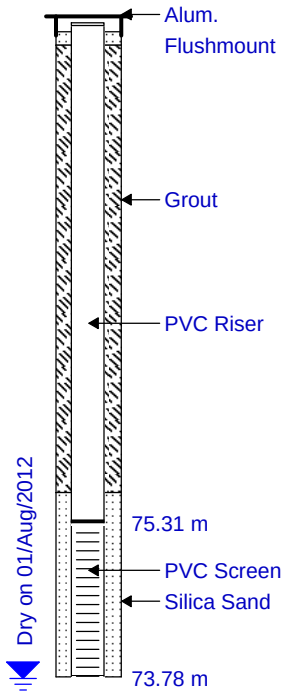
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 31 July 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.40
0–4 / 0–1	-	-		-	-	-		Soil Lithology/Sampling not conducted.	79.00
4–8 / 1–2	-	-		-	-	-			78.00
8–12 / 2–3									77.00
12–16 / 3–4									76.00
16–20 / 4–5	-	-		-	-	-		LIMESTONE	75.00
20–24 / 5–6									74.00
24–28 / 6–7								End of Borehole at 6.55 m bgs.	73.00
28–32 / 7–8									72.00
32–35 / 8–10									71.00
									70.00

Top of Riser Elev.= 80.24 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-77

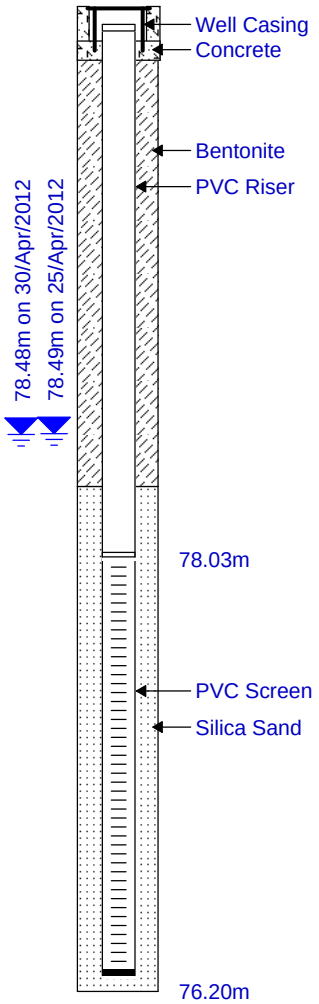
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 18 April 2012
Site Datum: Geodetic

SLE Supervisor: Brian S.
Drilling Method: HSA
Borehole Diameter: 250 mm
Monitoring Well Diameter: 50 mm

Drilling Company: Downing`
Drilling Equipment: CME 55 Truckmount
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.29
0 – 1 / 0	3 6 12 10	BH12-77 (0-2)		60	0	40%		TOPSOIL SAND AND GRAVEL FILL dry, brown	80.00
2 – 3 / 1	4 8 8 4	BH12-77 (2-4)		70	0	25%			
4 – 5 / 1	4 3 4 8	BH12-77 (4-6)		65	0	50%		SILTY SAND moist, brown	79.00
6 – 7 / 2	10 11 13 15	BH12-77 (6-8)	◆	65	0	100%		CLAY moist, grey/brown, stiff	78.00
8 – 9 / 2	5 8 10 13	BH12-77 (8-10)	◆	65	4	100%		firm to soft SILTY SAND solvent odor	
10 – 11 / 3	50 for 127 mm	BH12-77 (10-11)		60	0	5%		SAND traces of rock	77.00
12 – 13 / 4	50 for 127 mm	BH12-77 (12-14)		-	-	10%		LIMESTONE	
14 – 15								Refusal at 4.2 m bgs	76.00

Top of Riser Elev.= 80.18 m ald



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-92A

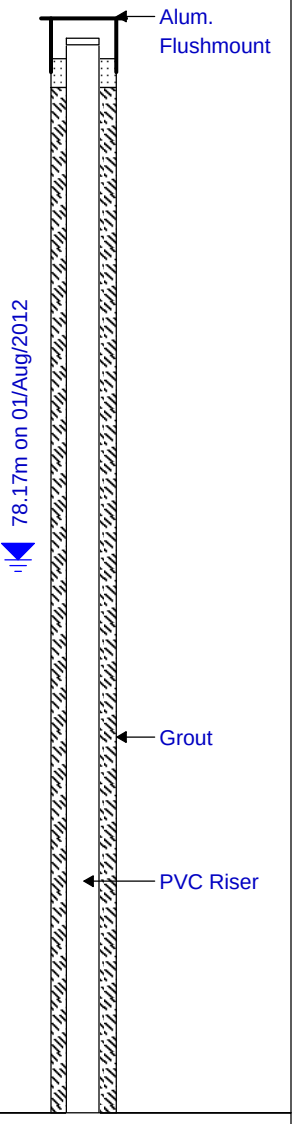
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 9 August 2012
Site Datum: Geodetic

SLE Supervisor: Emily V./E. Kelly
Drilling Method: Direct-Push/Air Rotary
Borehole Diameter: 83 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe/Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: RKI Eagle/MiniRae

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.47
1	-	BH-12-92A (0-2)		5	0.9	53%		SAND AND GRAVEL FILL light brown and grey	
2								SAND coarse	80.00
3 / 1								CLAYEY SILT black, compact	
4		BH-12-92A (2-4)		0	0.2	53%		olive, compact	
5									79.00
6		BH-12-92A (4-6)		5	0	95%		black and olive SAND coarse	
7 / 2								SAND AND GRAVEL FILL SILTY CLAY moist, grey with orange streaks, trace pebbles, compact to soft	
8									78.00
9		BH-12-92A (6-8)		5	0	95%		TILL (SILT, SAND, CLAY) wet	
10 / 3		BH-12-92A (8-9)		5	0	52%		CLAYEY SILT black and olive	
		BH-12-92A (9-10)		0	0	52%			
11								SILTY CLAY grey with orange streaks, pebbles	77.00
12								TILL (SILT, SAND, CLAY) wet, light brown with semi-rounded pebbles, soft	
13 / 4								Limestone	
14									
15									76.00

Top of Riser Elev.= 80.40 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

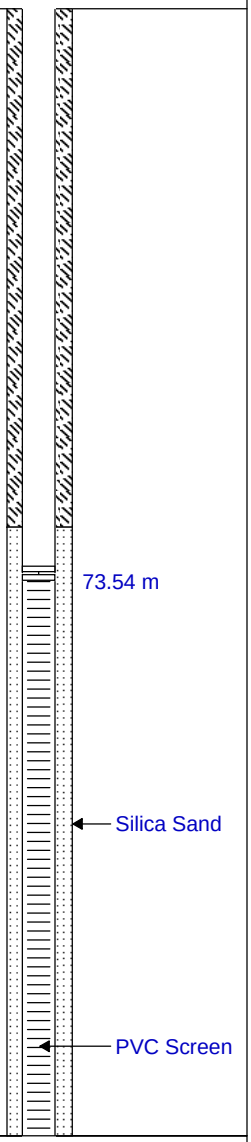
Borehole/Monitoring Well ID: BH/MW12-92A

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 9 August 2012
Site Datum: Geodetic

SLE Supervisor: Emily V./E. Kelly
Drilling Method: Direct-Push/Air Rotary
Borehole Diameter: 83 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe/Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: RKI Eagle/MiniRae

DEPTH	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
16								Limestone	
17	5								
18									75.00
19									
20	6								
21									74.00
22									
23	7								
24									
25									73.00
26	8								
27									
28									72.00
29	9								
30									



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

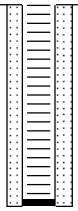
Borehole/Monitoring Well ID: BH/MW12-92A

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 9 August 2012
Site Datum: Geodetic

SLE Supervisor: Emily V./E. Kelly
Drilling Method: Direct-Push/Air Rotary
Borehole Diameter: 83 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe/Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: RKI Eagle/MiniRae

DEPTH	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
31								Limestone	71.00
32									
33	10							End of Borehole at 9.98 m bgs.	
34									70.00
35									
36	11								
37									
38									69.00
39									
40	12								
41									68.00
42									
43	13								
44									67.00
45									



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole ID: BH12-92A

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 9 August 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: MiniRae

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	81.18
0 – 1 / 0		BH12-92A (0-2)		5 ppm	0.9 ppm	53%		SAND AND GRAVEL FILL light brown and grey	
								SAND coarse	
2 – 3 / 1		BH12-92A (2-4)		0 ppm	0.2 ppm	53%		CLAYEY SILT black, compact olive, compact	80.00
4 – 5 / 1		BH12-92A (4-6)		5 ppm	0 ppm	95%		back and olive SAND coarse SAND AND GRAVEL FILL	
6 – 7 / 2								SILTY CLAY moist. grey with orange streaks, trace papbbles, compact to soft	79.00
8 – 9 / 2		BH12-92A (6-8)		5 ppm	0 ppm	95%		TILL (SILT, SAND, CLAY) wet	
10 / 3		BH12-92A (8-9)		5 ppm	0 ppm	52%		CLAYEY SILT black and olive	78.00
10 – 11 / 3		BH12-92A (9-10)		0 ppm	0 ppm	52%		SILTY CLAY grey with orange streaks, pebbles	
12 – 13 / 4								TILL (SILT, SAND, CLAY) wet, light brown with semi-rounded pebbles, soft	
13 – 14 / 4								Refusal at 3.3m bgs	77.00
14 – 15									

(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

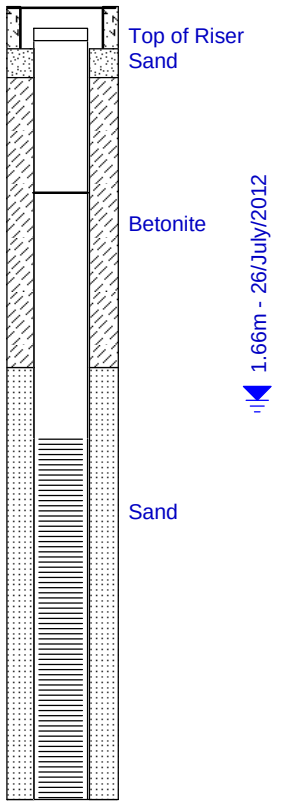
Borehole ID: BH12-94

Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 25 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm

Drilling Company: Strata
Drilling Equipment: Geoprobe
OVM: RKI Eagle
PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.54
0		BH12-94 (0-2)				50%		ASPHALT SAND AND GRAVEL FILL dry, black dry, brown	80.00
3 / 1		BH12-94 (2-4)		15 ppm	9ppm	50%		SILTY CLAY moist, black-brown	
6 / 2		BH12-94 (4-6)	◆	55 ppm	9 ppm	85%		SITLY SAND AND GRAVEL moist, brown	79.00
8 / 9 / 3		BH12-94 (6-8)	◆	85 ppm	501 ppm	85%		CLAY wet, black stain, strong odour wet, dark grey, strong odour	78.00
10 / 11 / 12 / 13 / 4 / 14 / 15								Refusal at 3.05m bgs	77.00 76.00



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

The data represented in this borehole log requires interpretation by SNC-Lavalin Environment personnel. Third parties using this log do so at their own risk.

All elevations and locations are approximate.

◆ Sample submitted for laboratory analysis.

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-94

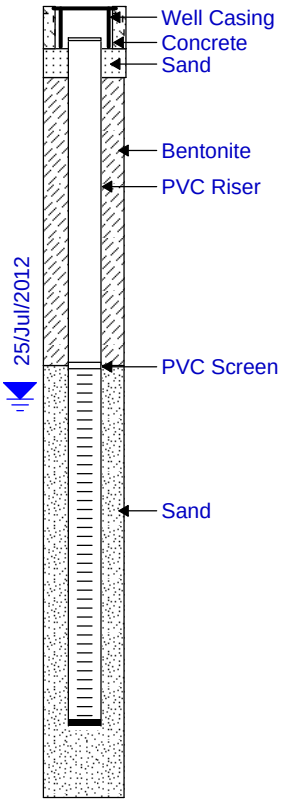
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 25 July 2012
Site Datum: Geodetic

SLE Supervisor: Emily V.
Drilling Method: Direct-Push
Borehole Diameter: 83 mm
Monitoring Well Diameter: 51mm (2")

Drilling Company: Strata
Drilling Equipment: Geoprobe
Well Casing:
Well Screen:
OVM/PID: RKI Eagle

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.71
0 – 1 ft		BH12-94 (0-2)				50%		ASPHALT SAND AND GRAVEL FILL dry, black	
1 – 2 ft								dry, brown	
2 – 3 ft		BH12-94 (2-4)		15	9	50%		SILTY CLAY moist, black to brown	80.00
3 – 4 ft									
4 – 5 ft		BH12-94 (4-6)	◆	55	9	85%		SILT, SAND AND GRAVEL moist, brown	79.00
5 – 6 ft									
6 – 7 ft		BH12-94 (6-8)	◆	85	501	85%		CLAY wet, black stain, strong odour	78.00
7 – 8 ft								dark grey, strong odour	
8 – 9 ft								Refusal at 3.05m bgs	
9 – 10 ft									77.00
10 – 11 ft									
11 – 12 ft									
12 – 13 ft									
13 – 14 ft									
14 – 15 ft									

Top of Riser Elev.= 80.52 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-95A

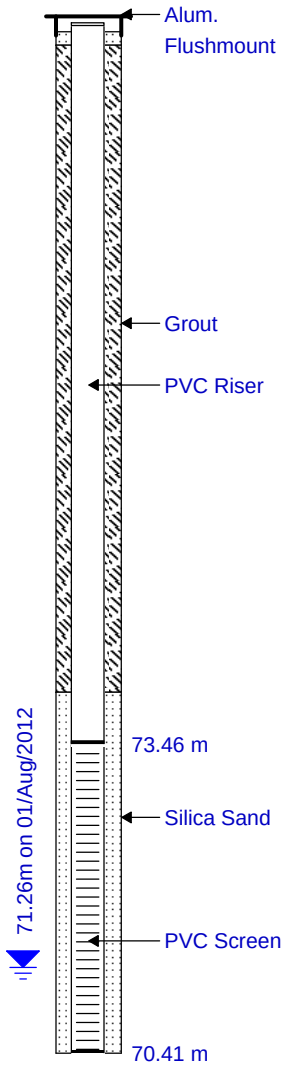
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 26 July 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.67
0–12 / 0–3	-	-		-	-	-		Soil Lithology/Sampling not conducted.	80.00 – 77.00
13–33 / 4–10	-	-		-	-	-		Limestone	77.00 – 70.00
34 / 10								End of Borehole at 10.3 m bgs.	70.00

Top of Riser Elev.= 80.57 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN Environment

Borehole/Monitoring Well ID: BH/MW12-95B

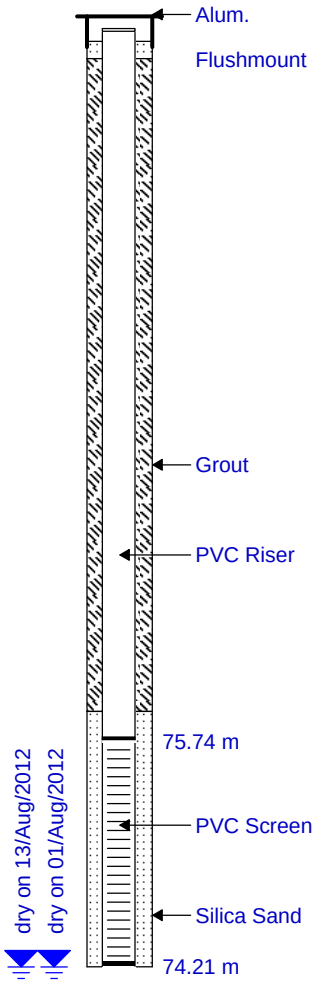
Project No.: 12-308
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: 27 July 2012
Site Datum: Geodetic

SLE Supervisor: E. Kelly
Drilling Method: Air Rotary
Borehole Diameter: 84 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geomachine
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 40 Slot 10 PVC
OVM/PID: N/A

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	80.66
0–12 / 0–3.5	-	-		-	-	-		Soil Lithology/Sampling not conducted.	80.66 – 77.00
12–21 / 3.5–6.5	-	-		-	-	-		Limestone Dry, brown/orange product present.	77.00 – 74.00
21 / 6.5								End of Borehole at 6.5 m bgs.	74.00

Top of Riser Elev.= 80.58 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN

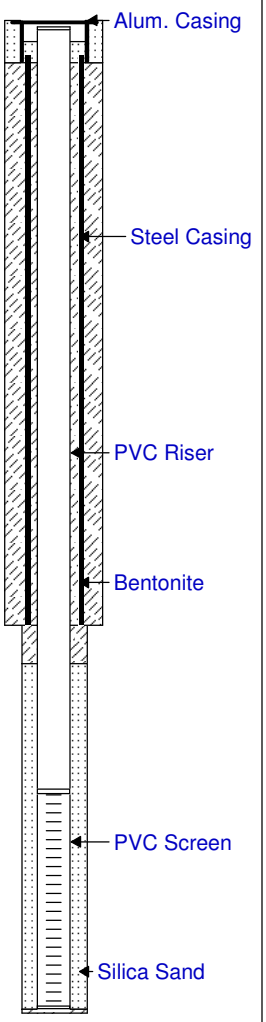
Borehole/Monitoring Well ID: MW14-26B

Project No.: 617555
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: February 20/22, 2014
Site Datum: Geodetic

SLI Supervisor: Eric K.
Drilling Method: Air Percussion
Borehole Diameter: 114 mm/89 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geoprobe 7822DT
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: na

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	0.00
								CONCRETE	
								Soil lithology/sampling not conducted.	
3 / 1									-1.00
6 / 2									-2.00
10 / 3									-3.00
13 / 4								BEDROCK (Limestone)	-4.00
16 / 5									-5.00
20 / 6									-6.00
23 / 7								End of Borehole at 7.0 m bgs	-7.00



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN

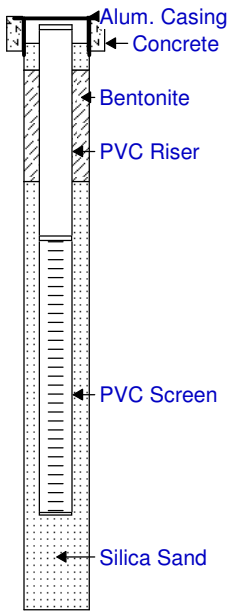
Borehole/Monitoring Well ID: MW14-107

Project No.: 617555
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: February 10, 2014
Site Datum: Geodetic

SLI Supervisor: Eric K.
Drilling Method: Air Percussion
Borehole Diameter: 152 mm
Monitoring Well Diameter: 51 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geoprobe 7822DT
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: na

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	0.00
								CONCRETE	
1								Soil lithology/sampling not conducted.	
2									
3 / 1									-1.00
4									
5									
6									
7 / 2									-2.00
8									
9									
10 / 3									-3.00
11								Refusal at 3.3 m bgs	
12									
13 / 4									-4.00
14									
15									
16 / 5									-5.00
17									
18									
19									
20 / 6									-6.00



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN

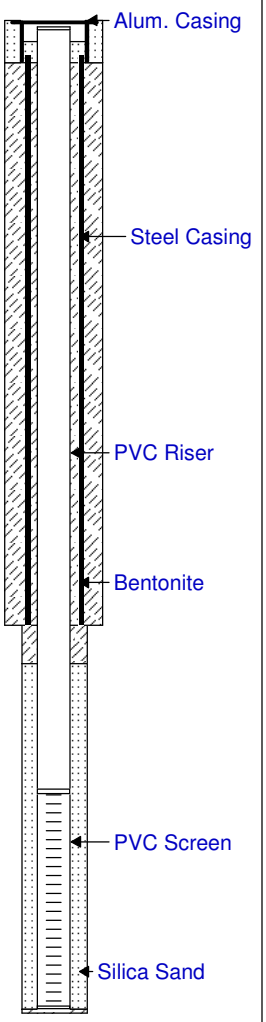
Borehole/Monitoring Well ID: MW14-107B

Project No.: 617555
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: February 9/22, 2014
Site Datum: Geodetic

SLI Supervisor: Eric K.
Drilling Method: Air Percussion
Borehole Diameter: 114 mm/89 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geoprobe 7822DT
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: na

DEPTH	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
ft / m								Ground Surface	0.00
								CONCRETE	
								Soil lithology/sampling not conducted.	-1.00
									-2.00
									-3.00
									-4.00
								BEDROCK (Limestone)	-5.00
									-6.00
								End of Borehole at 7.0 m bgs	-7.00



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN

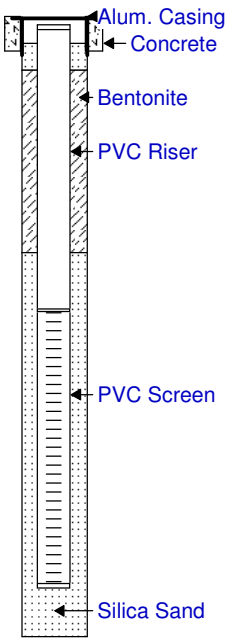
Borehole/Monitoring Well ID: MW14-108

Project No.: 617555
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: February 10, 2014
Site Datum: Geodetic

SLI Supervisor: Eric K.
Drilling Method: Air Percussion
Borehole Diameter: 152 mm
Monitoring Well Diameter: 51 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geoprobe 7822DT
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: na

DEPTH	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
ft / m								Ground Surface	0.00
								CONCRETE	
								Soil lithology/sampling not conducted.	
								Refusal at 3.5 m bgs	-1.00
									-2.00
									-3.00
									-4.00
									-5.00
									-6.00



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN

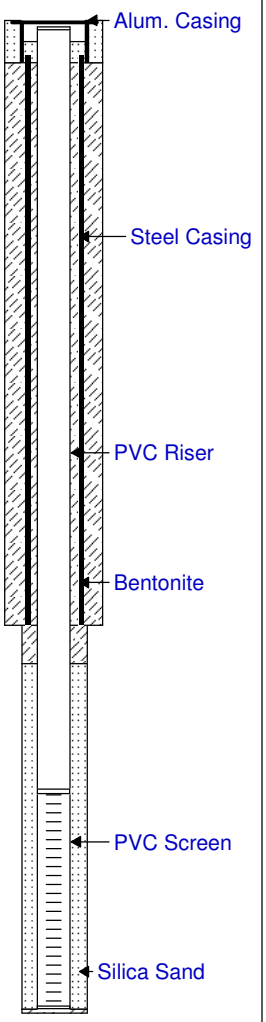
Borehole/Monitoring Well ID: MW14-108B

Project No.: 617555
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: February 9/22, 2014
Site Datum: Geodetic

SLI Supervisor: Eric K.
Drilling Method: Air Percussion
Borehole Diameter: 114 mm/89 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geoprobe 7822DT
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: na

DEPTH	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
ft / m								Ground Surface	0.00
								CONCRETE	
								Soil lithology/sampling not conducted.	-1.00
									-2.00
									-3.00
									-4.00
								BEDROCK (Limestone)	-5.00
									-6.00
								End of Borehole at 7.0 m bgs	-7.00



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN

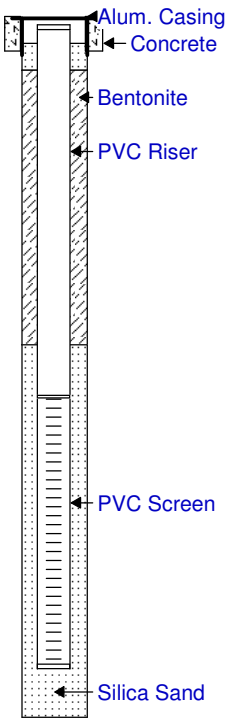
Borehole/Monitoring Well ID: MW14-109

Project No.: 617555
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: February 9, 2014
Site Datum: Geodetic

SLI Supervisor: Eric K.
Drilling Method: Air Percussion
Borehole Diameter: 152 mm
Monitoring Well Diameter: 51 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: Geoprobe 7822DT
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: na

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	0.00
								CONCRETE	
1								Soil lithology/sampling not conducted.	
2									
3 / 1									-1.00
4									
5									
6 / 2									-2.00
7									
8									
9 / 3									-3.00
10									
11									
12 / 4									-4.00
13								Refusal at 4.0 m bgs	
14									
15 / 5									-5.00
16									
17									
18 / 6									-6.00
19									
20									



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN

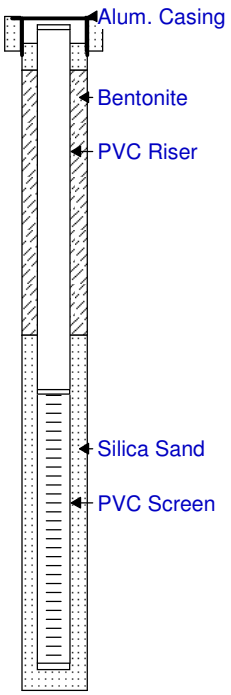
Borehole/Monitoring Well ID: MW14-118

Project No.: 617555
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: February 8, 2014
Site Datum: Geodetic

SLI Supervisor: Eric K.
Drilling Method: Air Percussion
Borehole Diameter: 114 mm
Monitoring Well Diameter: 51 mm

Drilling Company: Strata Soil Inc.
Drilling Equipment: GeoMachine 100 GT
Well Casing: 152 mm Alum. Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: na

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
0 / 0								Ground Surface	0.00
								SAND AND GRAVEL FILL	
1								Soil lithology/sampling not conducted.	
2									
3 / 1									-1.00
4									
5									
6									
7 / 2									-2.00
8									
9									
10 / 3									-3.00
11									
12									
13 / 4								Refusal at 3.8 m bgs	-4.00
14									
15									
16 / 5									-5.00
17									
18									
19									
20 / 6									-6.00



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN

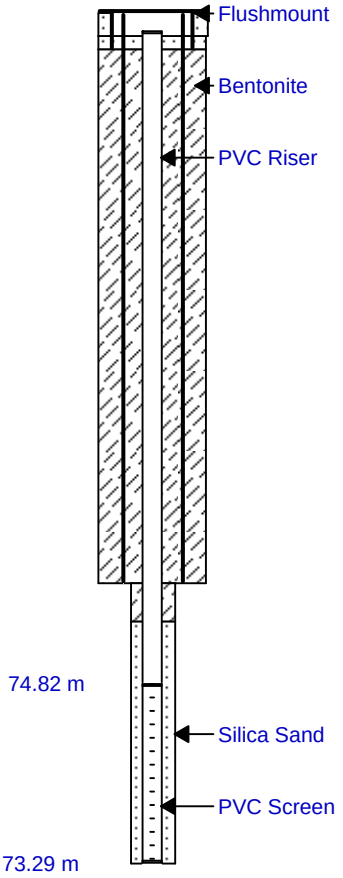
Borehole/Monitoring Well ID: MW14-123B

Project No.: 617555
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: November 7, 2014
Site Datum: Geodetic

SLI Supervisor: Alex B.
Drilling Method: HSA/DHH
Borehole Diameter: 203 mm/96 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Downing Drilling Ltd.
Drilling Equipment: CME 55 Truckmount
Well Casing: Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: na

DEPTH	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
ft / m								Ground surface (elev.) = 80.48 m Top of riser (elev.) = 80.33 m	
								Ground Surface	80.48
								CONCRETE	
								Soil lithology/sampling not conducted.	80.00
									79.00
									78.00
									77.00
									76.00
								BEDROCK (limestone)	75.00
									74.00
								End of Borehole at 7.2 m bgs	73.00



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN

Borehole/Monitoring Well ID: MW14-124B

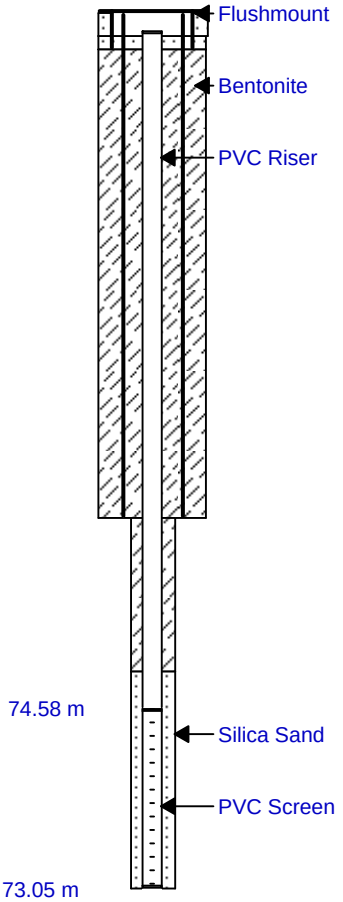
Project No.: 617555
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: November 10, 2014
Site Datum: Geodetic

SLI Supervisor: Alex B.
Drilling Method: HSA/DHH
Borehole Diameter: 203 mm/96 mm
Monitoring Well Diameter: 38 mm

Drilling Company: Downing Drilling Ltd.
Drilling Equipment: CME 55 Truckmount
Well Casing: Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: na

DEPTH	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
ft / m								Ground Surface	80.47
								Soil lithology/sampling not conducted.	80.00
									79.00
									78.00
									77.00
								BEDROCK (limestone)	76.00
									75.00
									74.00
								End of Borehole at 7.4 m bgs	73.00

Ground surface (elev.) = 80.47 m
Top of riser (elev.) = 80.32 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis

SNC·LAVALIN

Borehole/Monitoring Well ID: MW14-127

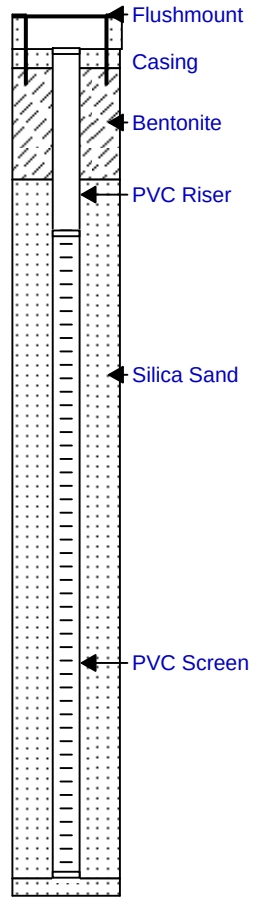
Project No.: 617555
Client: Defence Construction Canada
Location: CFB Trenton, Trenton, ON
Date Completed: November 6, 2014
Site Datum: Geodetic

SLI Supervisor: Chris R.
Drilling Method: HSA
Borehole Diameter: 203 mm
Monitoring Well Diameter: 51 mm

Drilling Company: Downing Drilling Ltd.
Drilling Equipment: CME 55 Truckmount
Well Casing: Flushmount
Well Screen: Schedule 10 Slot 40 PVC
OVM/PID: na

DEPTH (ft / m)	BLOW COUNT (1)	SAMPLE ID	LOCATION	OVM (2)	PID (3)	RECOVERY (%)	GRAPHIC LOG	DESCRIPTION	ELEVATION (m)
								Ground Surface	80.26
								ASPHALT	
								GRAVEL FILL.	80.00
0–1 / 0	13, 21 17, 8	BH14-127-1 (0-2)		<5	-	25%		GRAVELLY SAND dry, dark brown	
2–3 / 1	6, 6 6, 5	BH14-127-2 (2-4)		<5	-	29%		SANDY SILT moist, dark brown, some gravel	
4–5 / 1–2	3, 4 5, 8	BH14-127-3 (4-6)		<5	-	67%		CLAYEY SILT moist to wet, olive	79.00
6–7 / 2	10, 15 15, 19	BH14-127-4 (6-8)		<5	-	92%			78.00
8–9 / 2–3	3,6 12, 6	BH14-127-5 (8-10)		<5	-	100%		SANDY SILT wet, olive, with gravel (VOC odour)	
10–11 / 3	50 per 5"	BH14-127-6 (10-12)		<5	-	0%		boulder at 3.05 m bgs; no recovery	77.00
12 / 3–4	50 per 3"	BH14-127-7 (12)		<5	-	12%		SANDY SILT wet, olive, some clayey silt	76.80 m
13–15 / 4								Refusal at 3.7 m bgs	76.00

Ground surface (elev.) = 80.46 m
Top of riser (elev.) = 80.32 m



(1) Blow count per 0.15 m using conventional hammer and split spoons
(2) Organic Vapour Meter (OVM) reading (ppmv unless noted)
(3) Photo Ionization Detector (PID) reading (ppmv)

All elevations and locations are approximate.

Monitoring well equipped with dedicated inertial foot valve and polyethylene tubing for sampling.

◆ = Sample submitted for laboratory analysis