

APPENDIX 'A'

GEOTECHNICAL REPORT

APPENDIX 'A' - GEOTECHNICAL REPORT

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The geotechnical report is provided to aid in the Contractor's evaluation of the existing pavement structure and/or soil conditions. The information presented is considered accurate at the locations shown on the Drawings and at the time of drilling. However, variations in pavement structure and/or soil conditions may exist between test holes and fluctuations in groundwater levels can be expected seasonally and may occur as a result of construction activities. The nature and extent of variations may not become evident until construction commences.

Geotechnical Report for Waverley West Arterial Streets Program Part III

Test Hole Locations



Summary of Core Samples

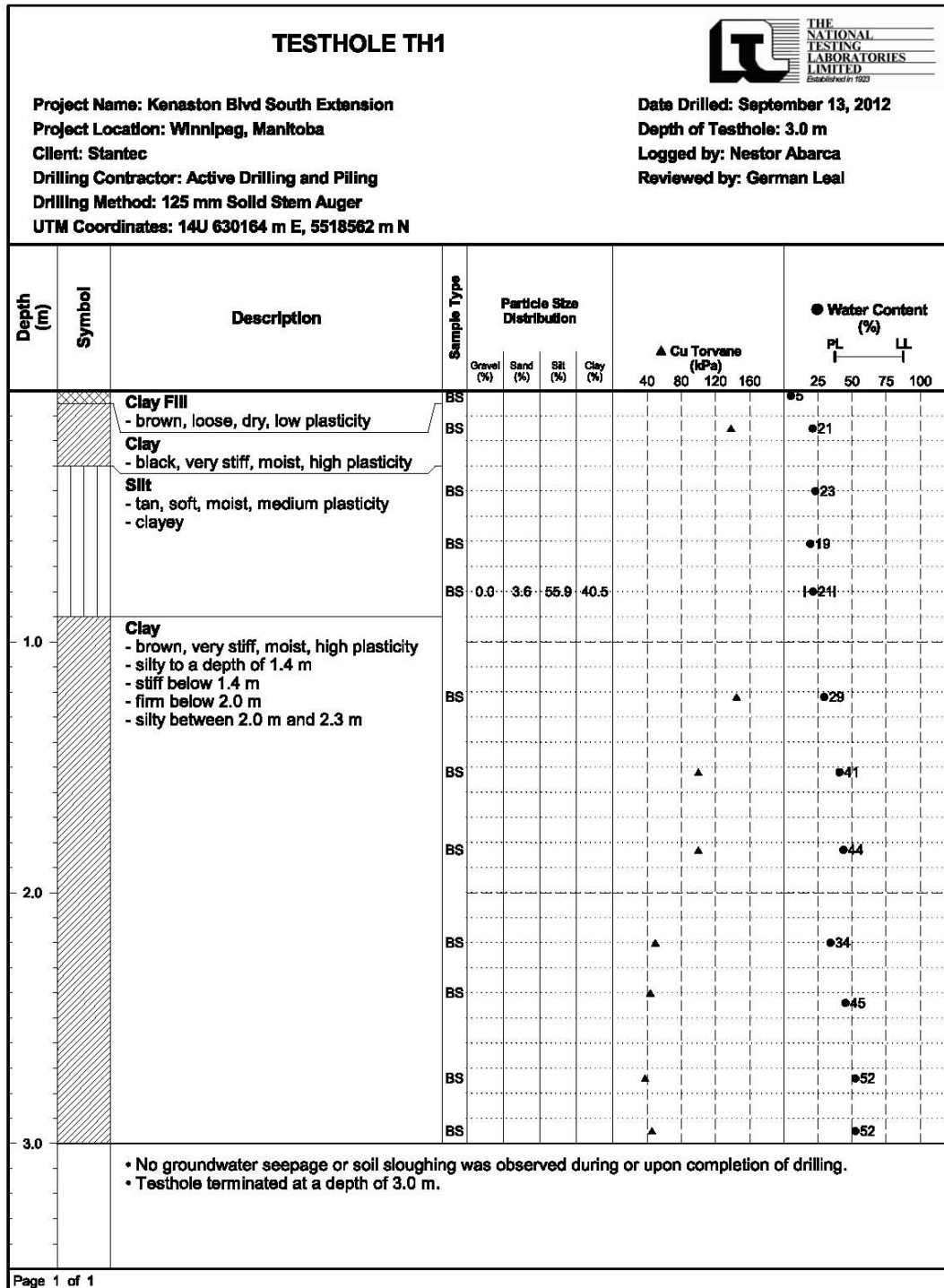


KENASTON BLVD SOUTH EXTENSION GEOTECHNICAL INVESTIGATION

| Testhole ID | Sample Depth (m) | Soil Type | Sample Description | Moisture Content (%) | Particle Size Analysis | | | | Atterberg Limits | | |
|-------------|------------------|-----------|--|----------------------|------------------------|----------|----------|----------|------------------|---------------|------------------|
| | | | | | Gravel (%) | Sand (%) | Silt (%) | Clay (%) | Liquid Limit | Plastic Limit | Plasticity Index |
| TH1 | 0.8 | Silt | tan, soft, moist, medium plasticity, clayey | 21.4 | 0.0 | 3.6 | 55.9 | 40.5 | 37 | 15 | 22 |
| TH5 | 0.6 | Clay Fill | brown, very stiff, moist, high plasticity, silty | 22.9 | 0.0 | 2.9 | 28.6 | 68.5 | 64 | 17 | 47 |
| TH9 | 1.5 | Clay | brown, very stiff, moist, high plasticity | 36.9 | 0.0 | 0.8 | 5.9 | 93.3 | 104 | 24 | 80 |

| Testhole no. | Sample Depth (m) | Soil Type | Sample Description | Moisture Content (%) | Particle Size Analysis | | | | Atterberg Limits | | |
|--------------|------------------|-----------|--|----------------------|-----------------------------|-------------------------------|--------------------------------|-----------------------|------------------|---------------|------------------|
| | | | | | Gravel (%) 75 to 4.75 mm | Sand (%) <4.75 to 0.075 mm | Silt (%) <0.075 to 0.005 mm | Clay (%) <0.005 mm | Liquid Limit | Plastic Limit | Plasticity Index |
| TH13 | 0.6 | Silt | tan, compact, moist, low plasticity, some clay | 22 | 0 | 0.8 | 60.4 | 38.8 | 37 | 16 | 21 |
| TH21 | 0.9 | Clay | grey, stiff, moist, high plasticity | 29 | 0 | 0.4 | 14.1 | 85.5 | 94 | 32 | 62 |
| TH27 | 0.6 | Silt | tan, compact, moist, low plasticity | 17 | 0 | 9.7 | 66.6 | 23.7 | 25 | 16 | 9 |
| TH33 | 0.9 | Clay | grey, stiff, moist, high plasticity | 24 | 0 | 1.5 | 17.5 | 81.0 | 83 | 28 | 55 |
| TH39 | 0.6 | Clay | grey, stiff, moist, high plasticity | 28 | 0 | 1.6 | 20.2 | 78.2 | 87 | 24 | 63 |

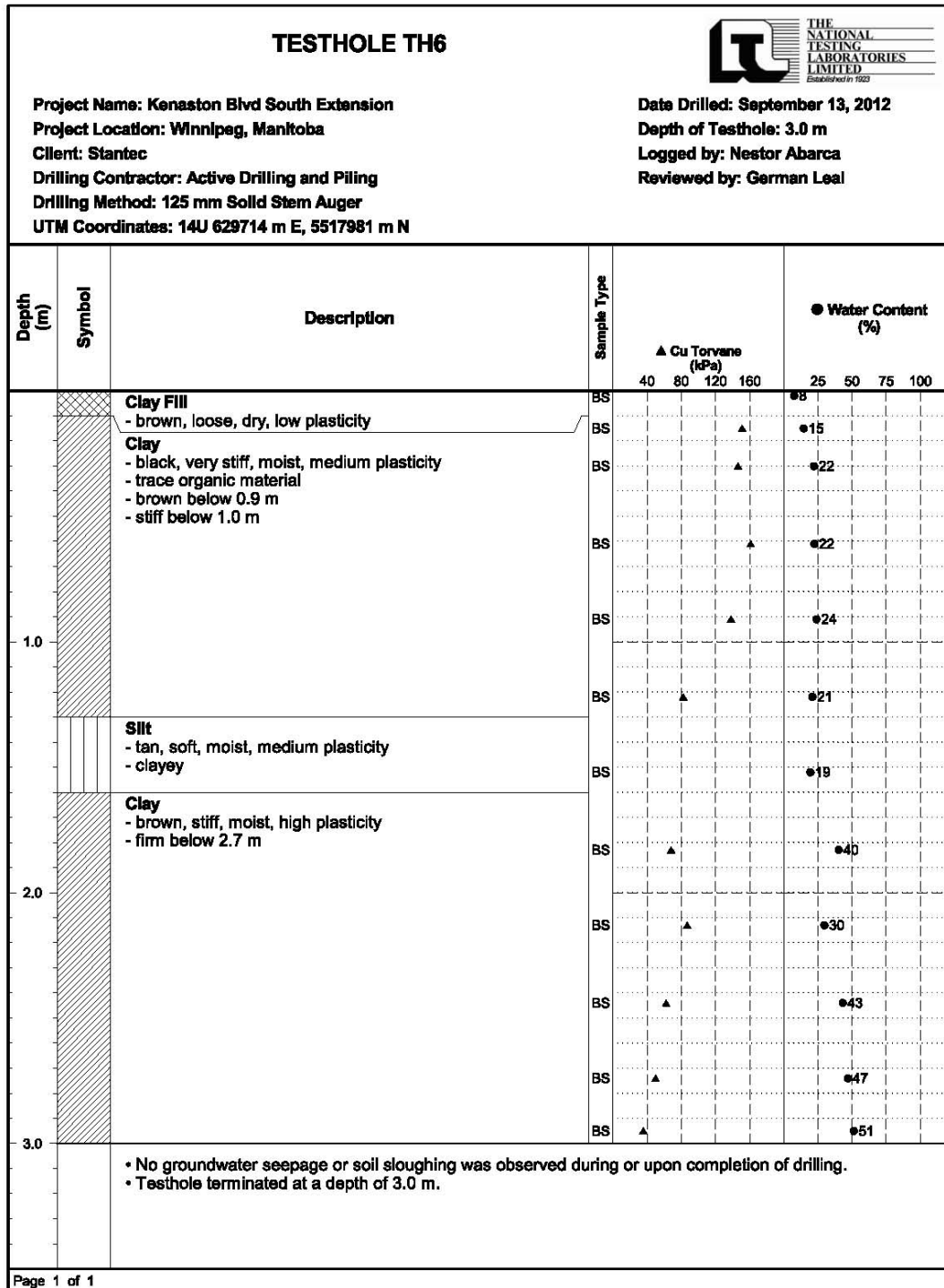
Test Hole Log for 1



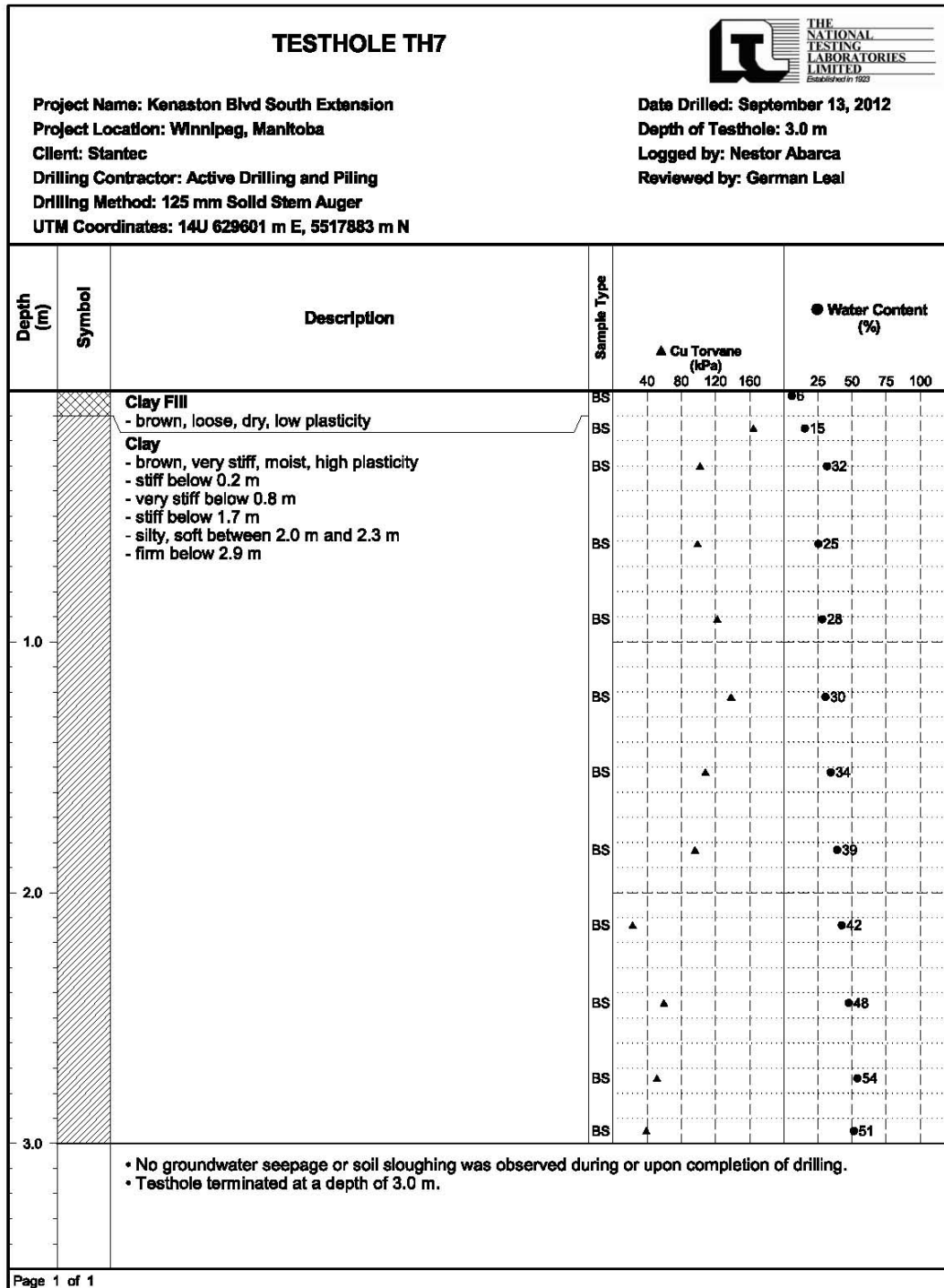
Test Hole Log for 5

| Depth (m) | | Symbol | Description | Sample Type | Particle Size Distribution | | | | Cu Torvane (kPa) | | | | Water Content (%) | | | | | | | |
|-----------|--|-------------------------|--|-------------|----------------------------|----------|----------|----------|------------------|----|-----|-----|-------------------|----|----|-----|--|--|--|--|
| | | | | | Gravel (%) | Sand (%) | Silt (%) | Clay (%) | 40 | 80 | 120 | 160 | 25 | 50 | 75 | 100 | | | | |
| 1.0 | | [Cross-hatched symbol] | Clay Fill - brown, very stiff, dry, high plasticity, silty - moist below 0.1 m | BS | | | | | | | | | | | | | | | | |
| | | | | BS | | | | | | | | | | | | | | | | |
| | | | | BS | | | | | | | | | | | | | | | | |
| | | | | BS | 0.0 | 2.9 | 28.6 | 68.5 | | | | | | | | | | | | |
| 1.0 | | [Diagonal lines symbol] | Clay - brown, very stiff, moist, medium plasticity - silty | BS | | | | | | | | | | | | | | | | |
| | | | | BS | | | | | | | | | | | | | | | | |
| | | | | BS | | | | | | | | | | | | | | | | |
| | | | | BS | | | | | | | | | | | | | | | | |
| 2.0 | | [Vertical lines symbol] | Silt - tan, soft, moist, low plasticity | BS | | | | | | | | | | | | | | | | |
| | | | | BS | | | | | | | | | | | | | | | | |
| | | | | BS | | | | | | | | | | | | | | | | |
| 3.0 | | [Diagonal lines symbol] | Clay - brown, stiff, moist, high plasticity - firm below 2.9 m | BS | | | | | | | | | | | | | | | | |
| | | | | BS | | | | | | | | | | | | | | | | |
| | | | <ul style="list-style-type: none"> No groundwater seepage or soil sloughing was observed during or upon completion of drilling. Testhole terminated at a depth of 3.0 m. | | | | | | | | | | | | | | | | | |

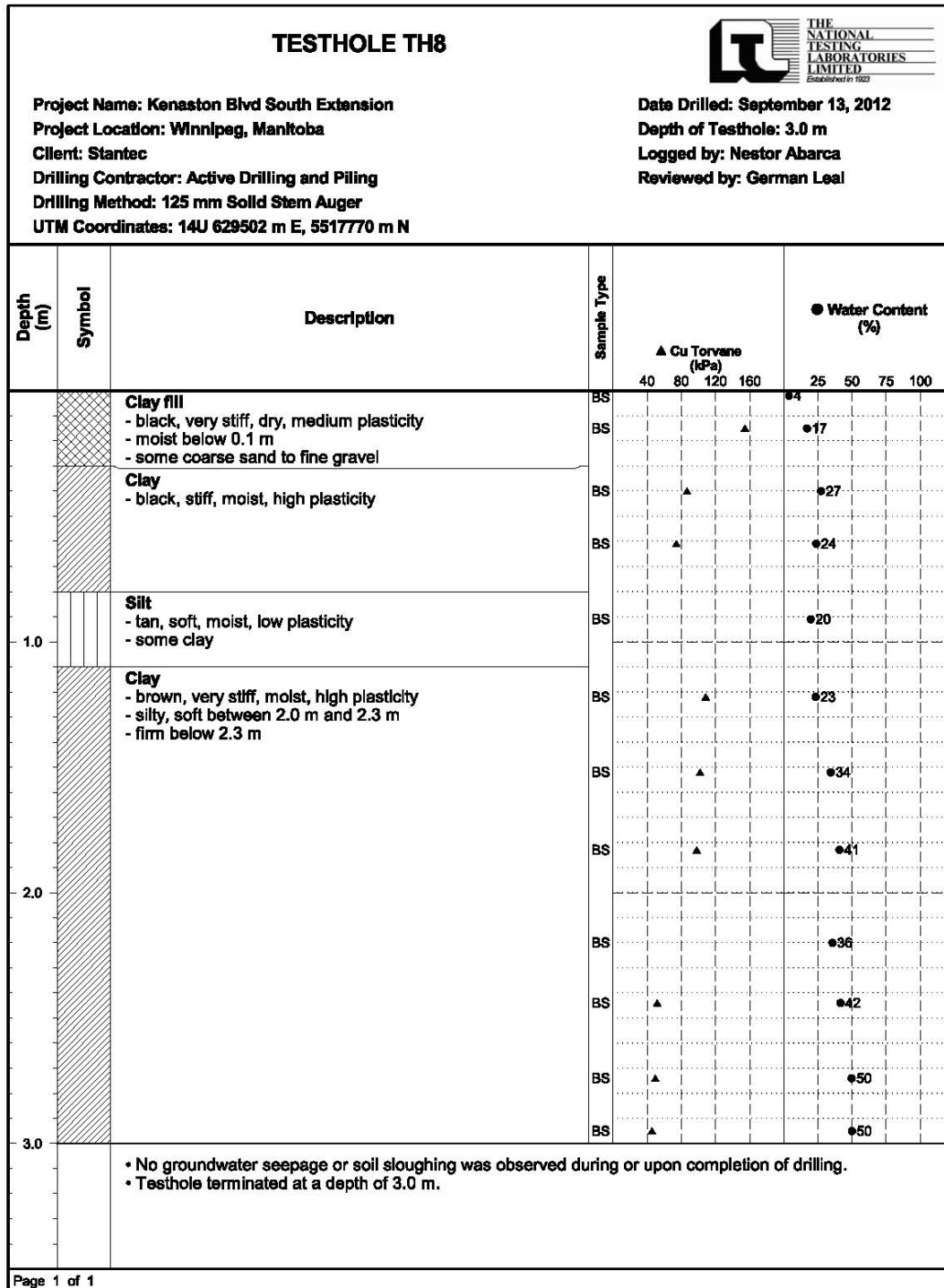
Test Hole Log for 6



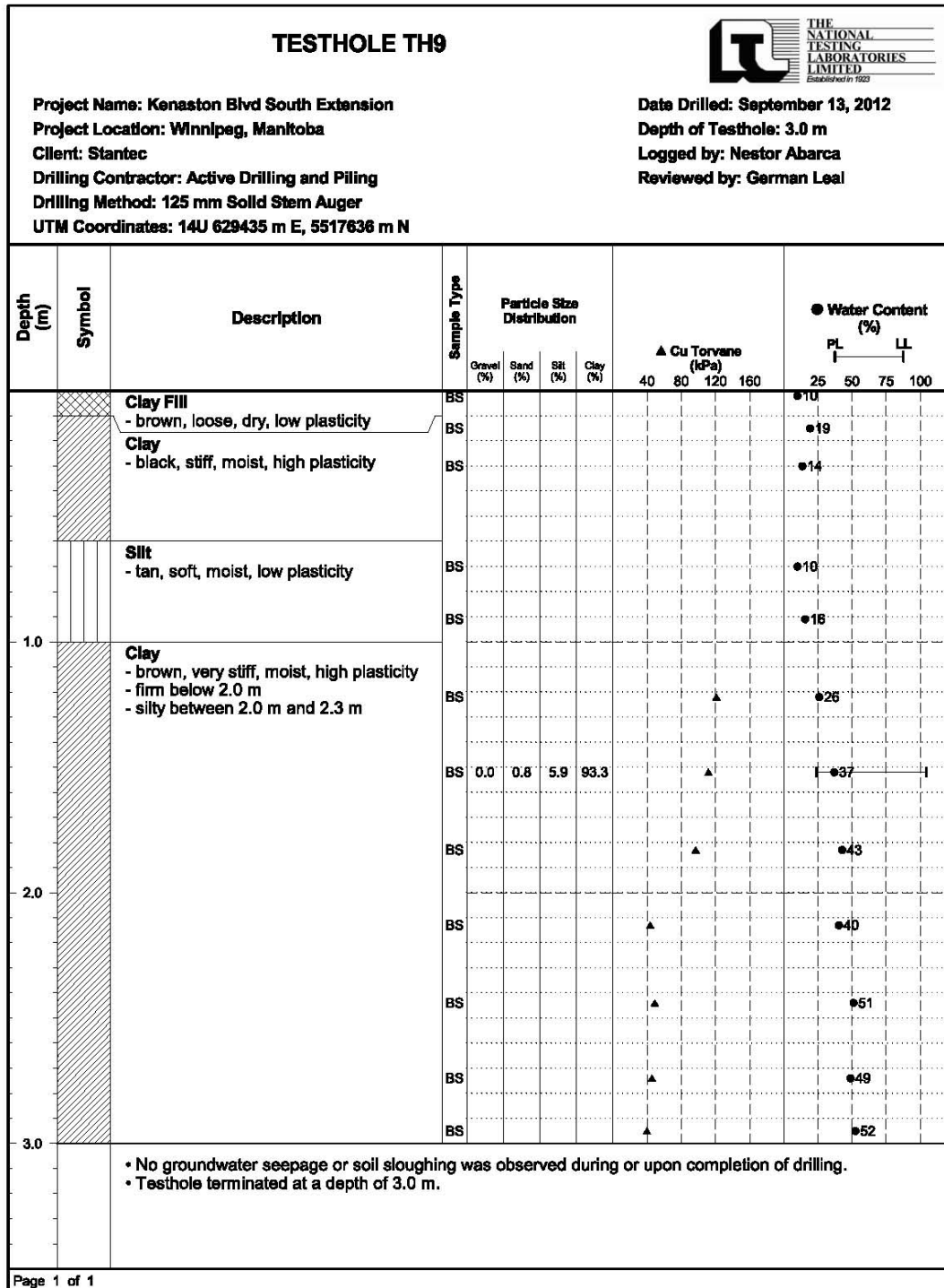
Test Hole Log for 7




Test Hole Log for 8




Test Hole Log for 9



Test Hole Log for 10

| TESTHOLE TH10 | | | |  | | | |
|--|--------|--|-------------|---|----|----|-----|
| Project Name: Kenaston Blvd South Extension | | Date Drilled: October 12, 2012 | | | | | |
| Project Location: Winnipeg, Manitoba | | Depth of Testhole: 3.0 m | | | | | |
| Client: Stantec | | Logged by: Trevor Schellenberg | | | | | |
| Drilling Contractor: Active Drilling and Piling | | Reviewed by: Aron Piamsalee | | | | | |
| Drilling Method: 125 mm Solid Stem Auger | | | | | | | |
| UTM Coordinates: 14U 629404 m E, 5517489 m N | | | | | | | |
| Depth (m) | Symbol | Description | Sample Type | ● Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | ▨ | Topsoll | | | | | |
| | ▨ | Clay - grey, stiff, moist, high plasticity | BS | ●28 | | | |
| | ▨ | | BS | ●27 | | | |
| 1.0 | ▨ | | BS | ●26 | | | |
| | ▨ | | BS | ●31 | | | |
| | ▨ | | BS | ●30 | | | |
| 2.0 | ▨ | | BS | ●31 | | | |
| | ▨ | | BS | ●40 | | | |
| | ▨ | | BS | ●43 | | | |
| | ▨ | | BS | ●52 | | | |
| 3.0 | ▨ | | BS | ●52 | | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |


Test Hole Log for 11

| TESTHOLE TH11 | | | |  | | | |
|--|-------------------|--|-------------|---|----|----|-----|
| Project Name: Kenaston Blvd South Extension | | Date Drilled: October 12, 2012 | | | | | |
| Project Location: Winnipeg, Manitoba | | Depth of Testhole: 3.0 m | | | | | |
| Client: Stantec | | Logged by: Trevor Schellenberg | | | | | |
| Drilling Contractor: Active Drilling and Piling | | Reviewed by: Aron Piamsalee | | | | | |
| Drilling Method: 125 mm Solid Stem Auger | | | | | | | |
| UTM Coordinates: 14U 629411 m E, 5517339 m N | | | | | | | |
| Depth (m) | Symbol | Description | Sample Type | ● Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | [Hatched Pattern] | Topsoll | | | | | |
| | [Diagonal Lines] | Clay - grey, stiff, moist, high plasticity - trace organic material to 0.3 m | BS | ●22 | | | |
| | [Diagonal Lines] | | BS | ●27 | | | |
| 1.0 | [Diagonal Lines] | | BS | ●26 | | | |
| | [Diagonal Lines] | | BS | ●29 | | | |
| | [Diagonal Lines] | | BS | ●42 | | | |
| | [Diagonal Lines] | | BS | ●39 | | | |
| 2.0 | [Vertical Lines] | Silt - tan, firm, moist, low plasticity | BS | ●29 | | | |
| | [Vertical Lines] | | BS | ●21 | | | |
| | [Diagonal Lines] | Clay - grey, stiff, moist, high plasticity | BS | ●51 | | | |
| 3.0 | [Diagonal Lines] | | BS | ●49 | | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |


Test Hole Log for 12

| Depth (m) | | Symbol | Description | Sample Type | Water Content (%) | | | |
|--|--|------------------|---|-------------|-------------------|----|----|-----|
| | | | | | 25 | 50 | 75 | 100 |
| 0.0 - 0.1 | | [Hatched] | Topsoll | | | | | |
| 0.1 - 0.2 | | [Vertical lines] | Silt - tan, firm, moist, low plasticity - some clay | BS | ●29 | | | |
| 0.2 - 1.0 | | [Diagonal lines] | Clay - grey, stiff, moist, high plasticity | BS | ●23 | | | |
| 1.0 - 1.5 | | [Diagonal lines] | | BS | ●31 | | | |
| 1.5 - 2.0 | | [Diagonal lines] | | BS | ●28 | | | |
| 2.0 - 2.2 | | [Vertical lines] | Silt - tan, firm, moist, low plasticity | BS | ●23 | | | |
| 2.2 - 2.5 | | [Vertical lines] | | BS | ●26 | | | |
| 2.5 - 2.8 | | [Vertical lines] | | BS | ●23 | | | |
| 2.8 - 3.0 | | [Vertical lines] | | BS | ●24 | | | |
| 3.0 - 3.1 | | [Diagonal lines] | Clay - grey, stiff, moist, high plasticity - some silt | BS | ●28 | | | |
| 3.1 - 3.0 | | [Diagonal lines] | | BS | ●44 | | | |
| <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | | | | |


Test Hole Log for 13

| TESTHOLE TH13 | | | | | |  | | | | | |
|--|--------|--|---------------------------------------|----------------------------|----------|---|----------|-------------------|----|----|-----|
| Project Name: Kenaston Blvd South Extension | | | Date Drilled: October 12, 2012 | | | | | | | | |
| Project Location: Winnipeg, Manitoba | | | Depth of Testhole: 3.0 m | | | | | | | | |
| Client: Stantec | | | Logged by: Trevor Schellenberg | | | | | | | | |
| Drilling Contractor: Active Drilling and Piling | | | Reviewed by: Aron Piamsalee | | | | | | | | |
| Drilling Method: 125 mm Solid Stem Auger | | | | | | | | | | | |
| UTM Coordinates: 14U 629486 m E, 5517049 m N | | | | | | | | | | | |
| Depth (m) | Symbol | Description | Sample Type | Particle Size Distribution | | | | Water Content (%) | | | |
| | | | | Gravel (%) | Sand (%) | Silt (%) | Clay (%) | PL | | LL | |
| | | | | | | | | 25 | 50 | 75 | 100 |
| | | Topsoll | | | | | | | | | |
| | | Clay - black, stiff, moist, high plasticity - trace organic material | BS | | | | | | | | ●23 |
| | | Silt - tan, firm, moist, low plasticity - some clay | BS | 0.0 | 0.8 | 60.4 | 38.8 | | | | ●22 |
| 1.0 | | | BS | | | | | | | | ●23 |
| | | | BS | | | | | | | | ●22 |
| | | Clay - grey, stiff, moist, high plasticity | BS | | | | | | | | ●40 |
| 2.0 | | | BS | | | | | | | | ●36 |
| | | | BS | | | | | | | | ●46 |
| | | | BS | | | | | | | | ●49 |
| | | | BS | | | | | | | | ●51 |
| 3.0 | | | BS | | | | | | | | ●52 |
| | | <ul style="list-style-type: none"> No groundwater seepage or soil sloughing was observed during or upon completion of drilling. Testhole terminated at a depth of 3.0 m. | | | | | | | | | |


Test Hole Log for 14

| TESTHOLE TH14 | | | | | | | |
|---|--------|--|--|---------------------|----|----|-----|
| Project Name: Kenaston Blvd South Extension Project Location: Winnipeg, Manitoba Client: Stantec Drilling Contractor: Active Drilling and Piling Drilling Method: 125 mm Solid Stem Auger UTM Coordinates: 14U 629561 m E, 5516919 m N | | |  Date Drilled: October 12, 2012 Depth of Testhole: 3.0 m Logged by: Trevor Schellenberg Reviewed by: Aron Piamsalee | | | | |
| Depth (m) | Symbol | Description | Sample Type | ● Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | ▨ | Topsoll | | | | | |
| | ▨ | Clay - black, stiff, moist, high plasticity | BS | ●20 | | | |
| | ▨ | Silt - tan, firm, moist, low plasticity - some clay below 1.2 m | BS | ●28 | | | |
| 1.0 | ▨ | | BS | ●21 | | | |
| | ▨ | | BS | ●28 | | | |
| | ▨ | Clay - grey, stiff, moist, high plasticity - some silt | BS | ●40 | | | |
| 2.0 | ▨ | | BS | ●39 | | | |
| | ▨ | | BS | ●42 | | | |
| | ▨ | | BS | ●31 | | | |
| | ▨ | | BS | ●47 | | | |
| 3.0 | ▨ | | BS | ●51 | | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |


Test Hole Log for 15

| TESTHOLE TH15 | | | |  | | | |
|--|--------|--|-------------|---|----|----|-----|
| Project Name: Kenaston Blvd South Extension | | Date Drilled: October 12, 2012 | | | | | |
| Project Location: Winnipeg, Manitoba | | Depth of Testhole: 3.0 m | | | | | |
| Client: Stantec | | Logged by: Trevor Schellenberg | | | | | |
| Drilling Contractor: Active Drilling and Piling | | Reviewed by: Aron Piamsalee | | | | | |
| Drilling Method: 125 mm Solid Stem Auger | | | | | | | |
| UTM Coordinates: 14U 629666 m E, 5518813 m N | | | | | | | |
| Depth (m) | Symbol | Description | Sample Type | ● Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | ▨ | Topsoll | | | | | |
| | ▨ | Clay - grey, stiff, moist, high plasticity | BS | ●30 | | | |
| | ▨ | | BS | ●30 | | | |
| 1.0 | ▨ | | BS | ●31 | | | |
| | ▨ | | BS | ●31 | | | |
| | ▨ | | BS | ●39 | | | |
| | ▨ | | BS | ●32 | | | |
| 2.0 | ▨ | | BS | ●43 | | | |
| | ▨ | | BS | ●54 | | | |
| | ▨ | | BS | ●61 | | | |
| 3.0 | ▨ | | BS | ●57 | | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |


Test Hole Log for 16

| TESTHOLE TH16 | | | |  | | | |
|--|--------|--|-------------|---|----|----|-----|
| Project Name: Kenaston Blvd South Extension | | Date Drilled: October 12, 2012 | | | | | |
| Project Location: Winnipeg, Manitoba | | Depth of Testhole: 3.0 m | | | | | |
| Client: Stantec | | Logged by: Trevor Schellenberg | | | | | |
| Drilling Contractor: Active Drilling and Piling | | Reviewed by: Aron Piamsalee | | | | | |
| Drilling Method: 125 mm Solid Stem Auger | | | | | | | |
| UTM Coordinates: 14U 629788 m E, 5516725 m N | | | | | | | |
| Depth (m) | Symbol | Description | Sample Type | Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | ▨ | Topsoil | | | | | |
| | ▨ | Clay - grey, stiff, moist, high plasticity - some silt between 1.5 m and 2.1 m | BS | ●24 | | | |
| | ▨ | | BS | ●22 | | | |
| 1.0 | ▨ | | BS | ●25 | | | |
| | ▨ | | BS | ●27 | | | |
| | ▨ | | BS | ●37 | | | |
| 2.0 | ▨ | | BS | ●36 | | | |
| | ▨ | | BS | ●43 | | | |
| | ▨ | | BS | ●45 | | | |
| | ▨ | | BS | ●50 | | | |
| 3.0 | ▨ | | BS | ●51 | | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |


Test Hole Log for 17

| TESTHOLE TH17 | | | |  | | | |
|--|--------|--|-------------|---|-----|----|-----|
| Project Name: Kenaston Blvd South Extension | | Date Drilled: October 12, 2012 | | | | | |
| Project Location: Winnipeg, Manitoba | | Depth of Testhole: 3.0 m | | | | | |
| Client: Stantec | | Logged by: Trevor Schellenberg | | | | | |
| Drilling Contractor: Active Drilling and Piling | | Reviewed by: Aron Piamsalee | | | | | |
| Drilling Method: 125 mm Solid Stem Auger | | | | | | | |
| UTM Coordinates: 14U 629901 m E, 5516626 m N | | | | | | | |
| Depth (m) | Symbol | Description | Sample Type | ● Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | | Topsol | | | | | |
| | | Clay - grey, stiff, moist, high plasticity | | | | | |
| 1.0 | | | BS | | ●39 | | |
| | | | BS | | ●33 | | |
| | | | BS | | ●32 | | |
| | | | BS | | ●34 | | |
| | | | BS | | ●43 | | |
| 2.0 | | | | | | | |
| | | | BS | | ●37 | | |
| | | | BS | | ●39 | | |
| 3.0 | | | BS | | ●51 | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |


Test Hole Log for 18

| TESTHOLE TH18 | | | |  | | | |
|--|--------|--|-------------|---|-----|----|-----|
| Project Name: Kenaston Blvd South Extension | | Date Drilled: October 12, 2012 | | | | | |
| Project Location: Winnipeg, Manitoba | | Depth of Testhole: 3.0 m | | | | | |
| Client: Stantec | | Logged by: Trevor Schellenberg | | | | | |
| Drilling Contractor: Active Drilling and Piling | | Reviewed by: Aron Piamsalee | | | | | |
| Drilling Method: 125 mm Solid Stem Auger | | | | | | | |
| UTM Coordinates: 14U 629996 m E, 5516510 m N | | | | | | | |
| Depth (m) | Symbol | Description | Sample Type | ● Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | ▨ | Topsoll | | | | | |
| | ▨ | Clay - grey, stiff, moist, high plasticity - trace organic material to 0.3 m | BS | | ●38 | | |
| | ▨ | | BS | | ●33 | | |
| 1.0 | ▨ | | BS | | ●31 | | |
| | ▨ | | BS | | ●34 | | |
| | ▨ | | BS | | ●45 | | |
| | ▨ | | BS | | ●43 | | |
| 2.0 | ▨ | | BS | | ●46 | | |
| | ▨ | | BS | | ●43 | | |
| | ▨ | | BS | | ●53 | | |
| 3.0 | ▨ | | BS | | ●55 | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |


Test Hole Log for 19

| TESTHOLE TH19 | | | |  | | | |
|--|--------|--|-------------|---|----|---------------------------------------|-----|
| Project Name: Kenaston Blvd South Extension | | Date Drilled: October 12, 2012 | | Depth of Testhole: 3.0 m | | Logged by: Trevor Schellenberg | |
| Project Location: Winnipeg, Manitoba | | Client: Startec | | Reviewed by: Aron Piamsalee | | | |
| Drilling Contractor: Active Drilling and Piling | | Drilling Method: 125 mm Solid Stem Auger | | UTM Coordinates: 14U 630095 m E, 5516388 m N | | | |
| Depth (m) | Symbol | Description | Sample Type | ● Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | ▨ | Topsoil | | | | | |
| | ▨ | Silt - tan, firm, moist, low plasticity | BS | ●16 | | | |
| | ▨ | | BS | ●15 | | | |
| 1.0 | ▨ | | BS | ●20 | | | |
| | ▨ | | BS | ●22 | | | |
| | ▨ | Clay - grey, stiff, moist, high plasticity | BS | ●36 | | | |
| | ▨ | | BS | ●44 | | | |
| 2.0 | ▨ | | BS | ●44 | | | |
| | ▨ | | BS | ●45 | | | |
| | ▨ | | BS | ●50 | | | |
| 3.0 | ▨ | | BS | ●53 | | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |


Test Hole Log for 20

| TESTHOLE TH20 | | | |  | | | |
|--|--------|--|-------------|---|----|----|-----|
| Project Name: Kenaston Blvd South Extension | | Date Drilled: October 12, 2012 | | | | | |
| Project Location: Winnipeg, Manitoba | | Depth of Testhole: 3.0 m | | | | | |
| Client: Stantec | | Logged by: Trevor Schellenberg | | | | | |
| Drilling Contractor: Active Drilling and Piling | | Reviewed by: Aron Piamsalee | | | | | |
| Drilling Method: 125 mm Solid Stem Auger | | | | | | | |
| UTM Coordinates: 14U 630128 m E, 5516241 m N | | | | | | | |
| Depth (m) | Symbol | Description | Sample Type | Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | | Topsoil | | | | | |
| | | Clay - black, stiff, moist, high plasticity - trace organic material to 0.3 m - grey below 0.9 m | BS | ●30 | | | |
| | | | BS | ●24 | | | |
| 1.0 | | | BS | ●24 | | | |
| | | | BS | ●23 | | | |
| | | | BS | ●24 | | | |
| | | | BS | ●36 | | | |
| 2.0 | | | BS | ●35 | | | |
| | | | BS | ●38 | | | |
| | | | BS | ●45 | | | |
| 3.0 | | | BS | ●53 | | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |


Test Hole Log for 21

| TESTHOLE TH21 | | | | | |  | | | | | | | |
|--|--------|--|---------------------------------------|----------------------------|----------|---|----------|-------------------|--|-----|--|--|--|
| Project Name: Kenaston Blvd South Extension | | | Date Drilled: October 12, 2012 | | | | | | | | | | |
| Project Location: Winnipeg, Manitoba | | | Depth of Testhole: 3.0 m | | | | | | | | | | |
| Client: Stantec | | | Logged by: Trevor Schellenberg | | | | | | | | | | |
| Drilling Contractor: Active Drilling and Piling | | | Reviewed by: Aron Piamsalee | | | | | | | | | | |
| Drilling Method: 125 mm Solid Stem Auger | | | | | | | | | | | | | |
| UTM Coordinates: 14U 630209 m E, 5518112 m N | | | | | | | | | | | | | |
| Depth (m) | Symbol | Description | Sample Type | Particle Size Distribution | | | | Water Content (%) | | | | | |
| | | | | Gravel (%) | Sand (%) | Silt (%) | Clay (%) | PL | | LL | | | |
| | | Topsoll | | | | | | | | | | | |
| | | Clay - grey, stiff, moist, high plasticity - trace organic material to 0.3 m | | | | | | | | | | | |
| | | | BS | | | | | | | ●25 | | | |
| | | | BS | | | | | | | ●27 | | | |
| 1.0 | | | BS | 0.0 | 0.4 | 14.1 | 85.5 | | | ●29 | | | |
| | | | BS | | | | | | | ●36 | | | |
| | | | BS | | | | | | | ●38 | | | |
| | | | BS | | | | | | | ●43 | | | |
| 2.0 | | | BS | | | | | | | ●49 | | | |
| | | | BS | | | | | | | ●48 | | | |
| | | | BS | | | | | | | ●49 | | | |
| 3.0 | | | BS | | | | | | | ●54 | | | |
| | | <ul style="list-style-type: none"> No groundwater seepage or soil sloughing was observed during or upon completion of drilling. Testhole terminated at a depth of 3.0 m. | | | | | | | | | | | |


Test Hole Log for 22

| TESTHOLE TH22 | | | |  | | | |
|--|-------------------|--|-------------|---|----|----|-----|
| Project Name: Kenaston Blvd South Extension | | Date Drilled: October 12, 2012 | | | | | |
| Project Location: Winnipeg, Manitoba | | Depth of Testhole: 3.0 m | | | | | |
| Client: Stantec | | Logged by: Trevor Schellenberg | | | | | |
| Drilling Contractor: Active Drilling and Piling | | Reviewed by: Aron Piamsalee | | | | | |
| Drilling Method: 125 mm Solid Stem Auger | | | | | | | |
| UTM Coordinates: 14U 630242 m E, 5515963 m N | | | | | | | |
| Depth (m) | Symbol | Description | Sample Type | ● Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | [Hatched Pattern] | Topsoil | | | | | |
| | | Clay - grey, stiff, moist, high plasticity - trace organic material to 0.3 m | BS | ●23 | | | |
| | | | BS | ●19 | | | |
| 1.0 | | | BS | ●21 | | | |
| | | | BS | ●22 | | | |
| | | | BS | ●31 | | | |
| 2.0 | | | BS | ●33 | | | |
| | | | BS | ●45 | | | |
| | | | BS | ●45 | | | |
| | | | BS | ●42 | | | |
| 3.0 | | | BS | ●52 | | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |


Test Hole Log for 23

| TESTHOLE TH23 | | | | | | | |
|---|-------------------|--|--|---------------------|----|----|-----|
| Project Name: Kenaston Blvd South Extension Project Location: Winnipeg, Manitoba Client: Stantec Drilling Contractor: Active Drilling and Piling Drilling Method: 125 mm Solid Stem Auger UTM Coordinates: 14U 630323 m E, 5515835 m N | | |  Date Drilled: October 12, 2012 Depth of Testhole: 3.0 m Logged by: Trevor Schellenberg Reviewed by: Aron Piamsalee | | | | |
| Depth (m) | Symbol | Description | Sample Type | ● Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | [Hatched Pattern] | Topsoil | | | | | |
| | | Clay - grey, stiff, moist, high plasticity - trace organic material to 0.3 m | BS | ●22 | | | |
| | | | BS | ●24 | | | |
| 1.0 | | | BS | ●21 | | | |
| | | | BS | ●29 | | | |
| | | | BS | ●34 | | | |
| 2.0 | | | BS | ●38 | | | |
| | | | BS | ●49 | | | |
| | | | BS | ●48 | | | |
| | | | BS | ●53 | | | |
| 3.0 | | | BS | ●55 | | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |


Test Hole Log for 24

| TESTHOLE TH24 | | | | | | | |
|---|--------|--|--|---------------------|----|----|-----|
| Project Name: Kenaston Blvd South Extension Project Location: Winnipeg, Manitoba Client: Stantec Drilling Contractor: Active Drilling and Piling Drilling Method: 125 mm Solid Stem Auger UTM Coordinates: 14U 629413 m E, 5515745 m N | | |  Date Drilled: October 12, 2012 Depth of Testhole: 3.0 m Logged by: Trevor Schellenberg Reviewed by: Aron Piamsalee | | | | |
| Depth (m) | Symbol | Description | Sample Type | ● Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | | Topsoll | | | | | |
| | | Clay - grey, very stiff, moist, high plasticity - trace organic material to 0.3 m - stiff below 0.9 m | BS | ●19 | | | |
| | | | BS | ●22 | | | |
| 1.0 | | | BS | ●20 | | | |
| | | | BS | ●25 | | | |
| | | | BS | ●25 | | | |
| 2.0 | | | BS | ●26 | | | |
| | | | BS | ●41 | | | |
| | | | BS | ●47 | | | |
| | | | BS | ●42 | | | |
| 3.0 | | | BS | ●48 | | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |





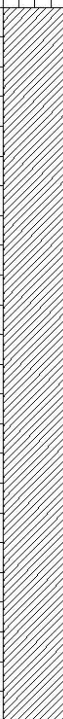
Test Hole Log for 25

| TESTHOLE TH25 | | | |  | | | |
|--|--------|--|-------------|---|----|---------------------------------------|-----|
| Project Name: Kenaston Blvd South Extension | | Date Drilled: October 12, 2012 | | Depth of Testhole: 3.0 m | | Logged by: Trevor Schellenberg | |
| Project Location: Winnipeg, Manitoba | | Client: Stantec | | Reviewed by: Aron Piamsalee | | | |
| Drilling Contractor: Active Drilling and Piling | | Drilling Method: 125 mm Solid Stem Auger | | UTM Coordinates: 14U 630443 m E, 5515519 m N | | | |
| Depth (m) | Symbol | Description | Sample Type | ● Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | ▨ | Topsoll | | | | | |
| | ▨ | Silt - tan, firm, moist, low plasticity | BS | ●19 | | | |
| | ▨ | | BS | ●20 | | | |
| 1.0 | ▨ | Clay - grey, stiff, moist, high plasticity | BS | ●35 | | | |
| | ▨ | | BS | ●32 | | | |
| | ▨ | | BS | ●38 | | | |
| | ▨ | | BS | ●39 | | | |
| 2.0 | ▨ | | BS | ●45 | | | |
| | ▨ | | BS | ●44 | | | |
| | ▨ | | BS | ●52 | | | |
| 3.0 | ▨ | | BS | ●42 | | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |


Test Hole Log for 26

| TESTHOLE TH26 | | | |  | | | |
|--|--------|--|-------------|---|----|---------------------------------------|-----|
| Project Name: Kenaston Blvd South Extension | | Date Drilled: October 12, 2012 | | Depth of Testhole: 3.0 m | | Logged by: Trevor Schellenberg | |
| Project Location: Winnipeg, Manitoba | | Client: Stantec | | Reviewed by: Aron Piamsalee | | | |
| Drilling Contractor: Active Drilling and Piling | | Drilling Method: 125 mm Solid Stem Auger | | UTM Coordinates: 14U 630471 m E, 5515409 m N | | | |
| Depth (m) | Symbol | Description | Sample Type | ● Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | ▨ | Topsoll | | | | | |
| | ▨ | Silt - tan, firm, moist, low plasticity | BS | ●16 | | | |
| | ▨ | | BS | ●11 | | | |
| 1.0 | ▨ | Clay - grey, stiff, moist, high plasticity | BS | ●34 | | | |
| | ▨ | | BS | ●35 | | | |
| | ▨ | | BS | ●41 | | | |
| 2.0 | ▨ | | BS | ●34 | | | |
| | ▨ | | BS | ●45 | | | |
| | ▨ | | BS | ●52 | | | |
| | ▨ | | BS | ●54 | | | |
| 3.0 | ▨ | | BS | ●53 | | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |


Test Hole Log for 27

| TESTHOLE TH27 | | | | | |  | | | | | |
|---|--|--|---|----------------------------|----------|---|----------|-------------------|----|----|-----|
| Project Name: Kenaston Blvd South Extension Project Location: Winnipeg, Manitoba Client: Stantec Drilling Contractor: Active Drilling and Piling Drilling Method: 125 mm Solid Stem Auger UTM Coordinates: 14U 630552 m E, 5515281 m N | | | Date Drilled: October 12, 2012 Depth of Testhole: 3.0 m Logged by: Trevor Schellenberg Reviewed by: Aron Piamsalee | | | | | | | | |
| Depth (m) | Symbol | Description | Sample Type | Particle Size Distribution | | | | Water Content (%) | | | |
| | | | | Gravel (%) | Sand (%) | Silt (%) | Clay (%) | PL | | LL | |
| | | | | | | | | 25 | 50 | 75 | 100 |
| |  | Topsoil | | | | | | | | | |
| |  | Clay - grey, stiff, moist, high plasticity | BS | | | | | | | | ●24 |
| |  | Silt - tan, firm, moist, low plasticity | BS | 0.0 | 9.7 | 66.6 | 23.7 | | | | ●17 |
| 1.0 |  | Clay - grey, stiff, moist, high plasticity - some silt from 1.5 m to 1.8 m | BS | | | | | | | | ●31 |
| | | | BS | | | | | | | | ●43 |
| | | | BS | | | | | | | | ●30 |
| | | | BS | | | | | | | | ●45 |
| 2.0 | | | BS | | | | | | | | ●53 |
| | | | BS | | | | | | | | ●41 |
| | | | BS | | | | | | | | ●55 |
| 3.0 | | | BS | | | | | | | | ●52 |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | | | | | |


Test Hole Log for 28

| TESTHOLE TH28 | | | |  | | | |
|--|-------------------|--|-------------|---|----|----|-----|
| Project Name: Kenaston Blvd South Extension | | Date Drilled: October 12, 2012 | | | | | |
| Project Location: Winnipeg, Manitoba | | Depth of Testhole: 3.0 m | | | | | |
| Client: Stantec | | Logged by: Trevor Schellenberg | | | | | |
| Drilling Contractor: Active Drilling and Piling | | Reviewed by: Aron Piamsalee | | | | | |
| Drilling Method: 125 mm Solid Stem Auger | | | | | | | |
| UTM Coordinates: 14U 630585 m E, 5515132 m N | | | | | | | |
| Depth (m) | Symbol | Description | Sample Type | ● Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | [Hatched Pattern] | Topsoll | | | | | |
| | | Clay - grey, stiff, moist, high plasticity - trace organic material to 0.3 m | BS | ●25 | | | |
| | | | BS | ●24 | | | |
| 1.0 | | | BS | ●27 | | | |
| | | | BS | ●28 | | | |
| | | | BS | ●35 | | | |
| | | | BS | ●38 | | | |
| 2.0 | | | BS | ●42 | | | |
| | | | BS | ●42 | | | |
| | | | BS | ●53 | | | |
| 3.0 | | | BS | ●51 | | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |


Test Hole Log for 29

| TESTHOLE TH29 | | | | | | | |
|---|------------------|--|--|---------------------|----|----|-----|
| Project Name: Kenaston Blvd South Extension Project Location: Winnipeg, Manitoba Client: Stantec Drilling Contractor: Active Drilling and Piling Drilling Method: 125 mm Solid Stem Auger UTM Coordinates: 14U 630666 m E, 5515002 m N | | |  Date Drilled: October 12, 2012 Depth of Testhole: 3.0 m Logged by: Trevor Schellenberg Reviewed by: Aron Piamsalee | | | | |
| Depth (m) | Symbol | Description | Sample Type | ● Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | [Dotted pattern] | Topsoll | | | | | |
| | [Diagonal lines] | Clay - grey, stiff, moist, high plasticity | BS | ●25 | | | |
| | [Vertical lines] | Silt - tan, firm, moist, low plasticity | BS | ●19 | | | |
| 1.0 | [Diagonal lines] | Clay - grey, stiff, moist, high plasticity - some silt to 2.1 m | BS | ●29 | | | |
| | | | BS | ●22 | | | |
| | | | BS | ●34 | | | |
| | | | BS | ●34 | | | |
| 2.0 | | | BS | ●44 | | | |
| | | | BS | ●42 | | | |
| | | | BS | ●46 | | | |
| 3.0 | | | BS | ●52 | | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |


Test Hole Log for 30

| TESTHOLE TH30 | | | |  | | | |
|--|-------------------|--|-------------|---|----|----|-----|
| Project Name: Kenaston Blvd South Extension | | Date Drilled: October 12, 2012 | | | | | |
| Project Location: Winnipeg, Manitoba | | Depth of Testhole: 3.0 m | | | | | |
| Client: Stantec | | Logged by: Trevor Schellenberg | | | | | |
| Drilling Contractor: Active Drilling and Piling | | Reviewed by: Aron Piamsalee | | | | | |
| Drilling Method: 125 mm Solid Stem Auger | | | | | | | |
| UTM Coordinates: 14U 630699 m E, 5514855 m N | | | | | | | |
| Depth (m) | Symbol | Description | Sample Type | Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | [Hatched Pattern] | Topsoil | | | | | |
| | [Diagonal Lines] | Clay - grey, stiff, moist, high plasticity - trace organic material to 0.3 m | BS | ●22 | | | |
| | [Diagonal Lines] | | BS | ●21 | | | |
| 1.0 | [Vertical Lines] | Silt - tan, firm, moist, low plasticity | BS | ●25 | | | |
| | [Vertical Lines] | | BS | ●15 | | | |
| | [Diagonal Lines] | Clay - grey, stiff, moist, high plasticity | BS | ●36 | | | |
| 2.0 | [Diagonal Lines] | | BS | ●35 | | | |
| | [Diagonal Lines] | | BS | ●36 | | | |
| | [Diagonal Lines] | | BS | ●36 | | | |
| | [Diagonal Lines] | | BS | ●47 | | | |
| 3.0 | [Diagonal Lines] | | BS | ●50 | | | |
| | | <ul style="list-style-type: none"> No groundwater seepage or soil sloughing was observed during or upon completion of drilling. Testhole terminated at a depth of 3.0 m. | | | | | |


Test Hole Log for 31

| TESTHOLE TH31 | |  | | | | | |
|---|---------|--|-------------|---------------------|----|----|-----|
| Project Name: Kenaston Blvd South Extension Project Location: Winnipeg, Manitoba Client: Stantec Drilling Contractor: Active Drilling and Piling Drilling Method: 125 mm Solid Stem Auger UTM Coordinates: 14U 630780 m E, 5514726 m N | | Date Drilled: October 12, 2012 Depth of Testhole: 3.0 m Logged by: Trevor Schellenberg Reviewed by: Aron Piamsalee | | | | | |
| Depth (m) | Symbol | Description | Sample Type | ● Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | Topsoil | | | | | | |
| | Clay | - black, stiff, moist, high plasticity - trace organic material to 0.3 m - grey below 0.6 m | BS | ●33 | | | |
| | Clay | | BS | ●30 | | | |
| 1.0 | Clay | | BS | ●21 | | | |
| | Silt | - tan, firm, moist, low plasticity | BS | ●16 | | | |
| | Silt | | BS | ●10 | | | |
| 2.0 | Silt | | BS | ●17 | | | |
| | Clay | | BS | ●19 | | | |
| | Clay | - grey, stiff, moist, high plasticity | BS | ●35 | | | |
| | Clay | | BS | ●34 | | | |
| 3.0 | Clay | | BS | ●45 | | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |


Test Hole Log for 32

| TESTHOLE TH32 | | | | | | | |
|---|---------------|--|--|---------------------|----|----|-----|
| Project Name: Kenaston Blvd South Extension Project Location: Winnipeg, Manitoba Client: Stantec Drilling Contractor: Active Drilling and Piling Drilling Method: 125 mm Solid Stem Auger UTM Coordinates: 14U 630622 m E, 5514682 m N | | |  Date Drilled: October 12, 2012 Depth of Testhole: 3.0 m Logged by: Trevor Schellenberg Reviewed by: Aron Piamsalee | | | | |
| Depth (m) | Symbol | Description | Sample Type | ● Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | [Hatched Box] | Topsoil | | | | | |
| | | Clay - black, stiff, moist, high plasticity - trace organic material to 0.3 m - grey below 0.3 m - some silt to 2.4 m | BS | ●25 | | | |
| | | | BS | ●22 | | | |
| 1.0 | | | BS | ●21 | | | |
| | | | BS | ●20 | | | |
| | | | BS | ●30 | | | |
| | | | BS | ●25 | | | |
| 2.0 | | | BS | ●27 | | | |
| | | | BS | ●28 | | | |
| | | | BS | ●34 | | | |
| 3.0 | | | BS | ●50 | | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |


Test Hole Log for 33

| TESTHOLE TH33 | | | | | |  | | | | | | | |
|--|--------|--|---------------------------------------|----------------------------|----------|---|----------|-------------------|--|-----|---|--|--|
| Project Name: Kenaston Blvd South Extension | | | Date Drilled: October 12, 2012 | | | | | | | | | | |
| Project Location: Winnipeg, Manitoba | | | Depth of Testhole: 3.0 m | | | | | | | | | | |
| Client: Stantec | | | Logged by: Trevor Schellenberg | | | | | | | | | | |
| Drilling Contractor: Active Drilling and Piling | | | Reviewed by: Aron Piamsalee | | | | | | | | | | |
| Drilling Method: 125 mm Solid Stem Auger | | | | | | | | | | | | | |
| UTM Coordinates: 14U 629949 m E, 5517701 m N | | | | | | | | | | | | | |
| Depth (m) | Symbol | Description | Sample Type | Particle Size Distribution | | | | Water Content (%) | | | | | |
| | | | | Gravel (%) | Sand (%) | Silt (%) | Clay (%) | PL | | LL | | | |
| | | Topsoll | | | | | | | | | | | |
| | | Clay - grey, stiff, moist, high plasticity - trace organic material to 0.3 m | | | | | | | | | | | |
| | | | BS | | | | | | | ●26 | | | |
| | | | BS | | | | | | | ●23 | | | |
| 1.0 | | | BS | 0.0 | 1.5 | 17.5 | 81.0 | | | ●24 | — | | |
| | | | BS | | | | | | | ●30 | | | |
| | | | BS | | | | | | | ●32 | | | |
| 2.0 | | | BS | | | | | | | ●38 | | | |
| | | | BS | | | | | | | ●34 | | | |
| | | | BS | | | | | | | ●47 | | | |
| | | | BS | | | | | | | ●48 | | | |
| 3.0 | | | BS | | | | | | | ●58 | | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | | | | | | | |


Test Hole Log for 34

| TESTHOLE TH34 | | | |  | | | |
|--|---------------|--|-------------|---|-----|---------------------------------------|-----|
| Project Name: Kenaston Blvd South Extension | | Date Drilled: October 12, 2012 | | Depth of Testhole: 3.0 m | | Logged by: Trevor Schellenberg | |
| Project Location: Winnipeg, Manitoba | | Client: Stantec | | Reviewed by: Aron Piamsalee | | | |
| Drilling Contractor: Active Drilling and Piling | | Drilling Method: 125 mm Solid Stem Auger | | UTM Coordinates: 14U 629954 m E, 5517551 m N | | | |
| Depth (m) | Symbol | Description | Sample Type | ● Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | [Hatched Box] | Topsoll | | | | | |
| | | Clay - grey, stiff, moist, high plasticity - trace organic material to 0.3 m | BS | | ●47 | | |
| | | | BS | | ●29 | | |
| 1.0 | | | BS | | ●26 | | |
| | | | BS | | ●26 | | |
| | | | BS | | ●35 | | |
| | | | BS | | ●30 | | |
| 2.0 | | | BS | | ●47 | | |
| | | | BS | | ●44 | | |
| | | | BS | | ●48 | | |
| 3.0 | | | BS | | ●45 | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |


Test Hole Log for 36

| TESTHOLE TH36 | | | | | | |
|----------------------|-------------------|---|--|----|----|-----|
| | | Project Name: Kenaston Blvd South Extension Project Location: Winnipeg, Manitoba Client: Stantec Drilling Contractor: Active Drilling and Piling Drilling Method: 125 mm Solid Stem Auger UTM Coordinates: 14U 630004 m E, 5517256 m N |  Date Drilled: October 12, 2012 Depth of Testhole: 3.0 m Logged by: Trevor Schellenberg Reviewed by: Aron Piamsalee | | | |
| Depth (m) | Symbol | Description | ● Water Content (%) | | | |
| | | | 25 | 50 | 75 | 100 |
| | [Hatched Pattern] | Topsoll | | | | |
| | [Diagonal Lines] | Clay - grey, stiff, moist, high plasticity - trace organic material to 0.3 m | ●30 | | | |
| | [Diagonal Lines] | Silt - tan, soft, moist, low plasticity | ●28 | | | |
| 1.0 | [Vertical Lines] | | ●23 | | | |
| | [Hatched Pattern] | Clay - grey, stiff, moist, high plasticity | ●33 | | | |
| | [Hatched Pattern] | | ●43 | | | |
| | [Hatched Pattern] | | ●39 | | | |
| 2.0 | [Hatched Pattern] | | ●45 | | | |
| | [Hatched Pattern] | | ●49 | | | |
| | [Hatched Pattern] | | ●53 | | | |
| 3.0 | [Hatched Pattern] | | ●45 | | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | |


Test Hole Log for 37

| TESTHOLE TH37 | | | |  | | | |
|--|--------|--|-------------|---|----|----|-----|
| Project Name: Kenaston Blvd South Extension | | Date Drilled: October 12, 2012 | | | | | |
| Project Location: Winnipeg, Manitoba | | Depth of Testhole: 3.0 m | | | | | |
| Client: Stantec | | Logged by: Trevor Schellenberg | | | | | |
| Drilling Contractor: Active Drilling and Piling | | Reviewed by: Aron Piamsalee | | | | | |
| Drilling Method: 125 mm Solid Stem Auger | | | | | | | |
| UTM Coordinates: 14U 630001 m E, 5517106 m N | | | | | | | |
| Depth (m) | Symbol | Description | Sample Type | ● Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | | Topsoll | | | | | |
| | | Silt - tan, firm, moist, low plasticity | BS | ●17 | | | |
| | | | BS | ●13 | | | |
| 1.0 | | Clay - grey, stiff, moist, high plasticity | BS | ●32 | | | |
| | | | BS | ●26 | | | |
| | | | BS | ●37 | | | |
| | | | BS | ●40 | | | |
| 2.0 | | | BS | ●43 | | | |
| | | | BS | ●46 | | | |
| | | | BS | ●51 | | | |
| 3.0 | | | BS | ●51 | | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |


Test Hole Log for 38

| TESTHOLE TH38 | | | |  | | | |
|--|--------|--|-------------|---|----|----|-----|
| Project Name: Kenaston Blvd South Extension | | Date Drilled: October 12, 2012 | | | | | |
| Project Location: Winnipeg, Manitoba | | Depth of Testhole: 3.0 m | | | | | |
| Client: Stantec | | Logged by: Trevor Schellenberg | | | | | |
| Drilling Contractor: Active Drilling and Piling | | Reviewed by: Aron Piamsalee | | | | | |
| Drilling Method: 125 mm Solid Stem Auger | | | | | | | |
| UTM Coordinates: 14U 629980 m E, 5516957 m N | | | | | | | |
| Depth (m) | Symbol | Description | Sample Type | ● Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | | Topsoll | | | | | |
| | | Clay - grey, stiff, moist, high plasticity | BS | ●27 | | | |
| | | | BS | ●29 | | | |
| 1.0 | | | BS | ●31 | | | |
| | | | BS | ●37 | | | |
| | | | BS | ●39 | | | |
| 2.0 | | | BS | ●41 | | | |
| | | | BS | ●45 | | | |
| | | | BS | ●41 | | | |
| | | | BS | ●48 | | | |
| 3.0 | | | BS | ●48 | | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |

Test Hole Log for 39

| TESTHOLE TH39 | | | | | |  | | | | | |
|---|--------|--|---|----------------------------|----------|---|----------|-------------------|----|----|-----|
| Project Name: Kenaston Blvd South Extension Project Location: Winnipeg, Manitoba Client: Stantec Drilling Contractor: Active Drilling and Piling Drilling Method: 125 mm Solid Stem Auger UTM Coordinates: 14U 629968 m E, 5516808 m N | | | Date Drilled: October 12, 2012 Depth of Testhole: 3.0 m Logged by: Trevor Schellenberg Reviewed by: Aron Piamsalee | | | | | | | | |
| Depth (m) | Symbol | Description | Sample Type | Particle Size Distribution | | | | Water Content (%) | | | |
| | | | | Gravel (%) | Sand (%) | Silt (%) | Clay (%) | PL | | LL | |
| | | | | | | | | 25 | 50 | 75 | 100 |
| | | Topsoll | | | | | | | | | |
| | | Clay - grey, stiff, moist, high plasticity | | | | | | | | | |
| | | | BS | | | | | | | | ●27 |
| | | | BS | 0.0 | 1.6 | 20.2 | 78.2 | | | | ●28 |
| 1.0 | | | BS | | | | | | | | ●32 |
| | | | BS | | | | | | | | ●36 |
| | | | BS | | | | | | | | ●39 |
| | | | BS | | | | | | | | ●33 |
| 2.0 | | | BS | | | | | | | | ●50 |
| | | | BS | | | | | | | | ●43 |
| | | | BS | | | | | | | | ●49 |
| 3.0 | | | BS | | | | | | | | ●57 |
| | | <ul style="list-style-type: none"> No groundwater seepage or soil sloughing was observed during or upon completion of drilling. Testhole terminated at a depth of 3.0 m. | | | | | | | | | |

Test Hole Log for 40

| TESTHOLE TH40 | | | |  | | | |
|--|-------------------|--|-------------|---|----|----|-----|
| Project Name: Kenaston Blvd South Extension | | Date Drilled: October 12, 2012 | | | | | |
| Project Location: Winnipeg, Manitoba | | Depth of Testhole: 3.0 m | | | | | |
| Client: Stantec | | Logged by: Trevor Schellenberg | | | | | |
| Drilling Contractor: Active Drilling and Piling | | Reviewed by: Aron Piamsalee | | | | | |
| Drilling Method: 125 mm Solid Stem Auger | | | | | | | |
| UTM Coordinates: 14U 629990 m E, 5516660 m N | | | | | | | |
| Depth (m) | Symbol | Description | Sample Type | ● Water Content (%) | | | |
| | | | | 25 | 50 | 75 | 100 |
| | [Hatched Pattern] | Topsoll | | | | | |
| | | Clay - grey, stiff, moist, high plasticity - firm below 1.2 m - some silt from 2.2 m to 2.5 m | BS | ●27 | | | |
| | | | BS | ●20 | | | |
| 1.0 | | | BS | ●34 | | | |
| | | | BS | ●27 | | | |
| | | | BS | ●37 | | | |
| 2.0 | | | BS | ●34 | | | |
| | | | BS | ●44 | | | |
| | | | BS | ●29 | | | |
| | | | BS | ●51 | | | |
| 3.0 | | | BS | ●55 | | | |
| | | <ul style="list-style-type: none"> • No groundwater seepage or soil sloughing was observed during or upon completion of drilling. • Testhole terminated at a depth of 3.0 m. | | | | | |