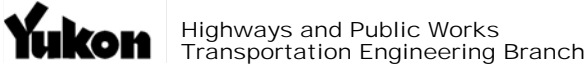


|   |  |  |   |                        |          |             |  |  |             |
|---|--|--|---|------------------------|----------|-------------|--|--|-------------|
| SUBSURFACE EXPLORATION AND TEST REPORT  |  | North Canal  |   | SOURCE/TP#: 902-5717.1 |          |             |  |  |             |
| Gateway Drilling  |  | Hess Bridge North, km 417  |   | PROJECT NO:            |          |             |  |  |             |
| Solid stem/hollow stem  |  | Coordinates: Z09V N6989855m E431380m   |   | ELEVATION: 1029m       |          |             |  |  |             |
| SAMPLE TYPE   |  | <input type="checkbox"/> UNDISTURBED <input type="checkbox"/> DCPT <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input checked="" type="checkbox"/> SPT <input type="checkbox"/> CORE |   |                        |          |             |  |  |             |
| ELEV. (m)   | PLASTIC      M.C      LIQUID<br>0      20      40      60      80      100 | ★ Percent Fines ★<br>◆ Percent Sand ◆<br>■ Percent Gravel ■  |   | Sample Type            | Sample # | SOIL SYMBOL | DCPT/SPT Blows/30cm  | SOIL DESCRIPTION   | Depth (m)   |
|   |  | 0      20      40      60      80      100   |   |                        |          |             |  |  |             |
| 1029  |  |  |   |                        | 001      | GW          | 8  | Loose gravels<br>ORGANIC SILT, trace sand and gravel<br>-Black, soft, moist, fibrous to decomposed<br>-drill grinding<br>-drilling smooths out | 1           |
| 1027  |  | ★  | ◆ | ■                      |          |             |  | WELL-GRADED GRAVEL with SAND<br>-Brown, loose, saturated<br>-SPT Refusal at 40cm, 6cm return   | 2           |
| 1026  |  |  |   |                        |          |             |  | END of HOLE<br>-Refusal on rock, moved 3m to bridge  | 3           |
| 1025  |  |  |   |                        |          |             |  |  | 4           |
| 1024  |  |  |   |                        |          |             |  |  |             |
|  |  |  |   |                        |          |             | LOGGED BY: RS/DL      Termination Depth: 1.5m<br>COMPILED BY: R.Stilwell      Complete:<br>REVIEWED BY: Dave Lorenzi      Pit #: |  | Page 1 of 1 |

|  |  |   |  |                               |                     |
|--|--|---|--|-------------------------------|---------------------|
| SUBSURFACE EXPLORATION AND TEST REPORT   |  | North Canal                             |  | SOURCE/TP#: 902-5717.2        |                     |
| Gateway Drilling   |  | Hess Bridge North, km 417               |  | PROJECT NO:                   |                     |
| Solid stem/hollow stem   |  | Coordinates: Z09V N6989851m E431371m    |  | ELEVATION: 1029m              |                     |
| SAMPLE TYPE  |  | <input type="checkbox"/> UNDISTURBED    |  | <input type="checkbox"/> DCPT |                     |
|  |  | <input type="checkbox"/> AUGER          |  | <input type="checkbox"/> BULK |                     |
|  |  | <input checked="" type="checkbox"/> SPT |  | <input type="checkbox"/> CORE |                     |
| ELEV. (m)  |  | ★ Percent Fines★                        |  | Sample Type                   | Sample #            |
|  |  | ◆ Percent Sand◆                         |  |                               |                     |
|  |  | ■ Percent Gravel■                       |  | SOIL SYMBOL                   | DCPT/SPT Blows/30cm |
|  |  |   |  |                               |                     |
| 1029   |  |   |  | 002                           | SW-SM               |
| 1027   |  |   |  |                               | 25                  |
| 1026   |  |   |  |                               |                     |
| 1025   |  |   |  |                               |                     |
| 1024   |  |   |  |                               |                     |
| <p>Soil Description:</p> <p>Loose gravels</p> <p>ORGANIC SILT, trace sand and gravel<br/>-Black, soft, moist, fibrous to decomposed</p> <p>WELL-GRADED SAND with SILT and GRAVEL<br/>-Dark brown, compact, saturated<br/>-10cm return, blocked by rock</p> <p>-Grinding on cobbles, about 30cm thick with solid stem</p> <p>-Stiffer drilling, serious grinding - bending solid stem</p> <p>END of HOLE<br/>-Refusal</p> |  |   |  |                               |                     |
| <p>Depth (m): 1, 2, 3, 4</p>   |  |   |  |                               |                     |



|  |  |  |  |                        |             |                     |  |           |
|--|--|--|--|------------------------|-------------|---------------------|--|-----------|
| SUBSURFACE EXPLORATION AND TEST REPORT |  | North Canal  |  | SOURCE/TP#: 902-5717.3 |             |                     |  |           |
| Gateway Drilling                       |  | Hess Bridge North, km 417  |  | PROJECT NO:            |             |                     |  |           |
| Solid stem/hollow stem                 |  | Coordinates: Z09V N6989851m E431378m   |  | ELEVATION: 1029m       |             |                     |  |           |
| SAMPLE TYPE                            |  | <input type="checkbox"/> UNDISTURBED <input type="checkbox"/> DCPT <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input checked="" type="checkbox"/> SPT <input type="checkbox"/> CORE |  |                        |             |                     |  |           |
| ELEV. (m)                              |  | ★ Percent Fines★<br>◆ Percent Sand◆<br>■ Percent Gravel■   |  | Sample #               | SOIL SYMBOL | DCPT/SPT Blows/30cm | SOIL DESCRIPTION                             | Depth (m) |
|  |  | 0 20 40 60 80 100    0 20 40 60 80 100   |  |                        |             |                     |  |           |
| 1029                                   |  |  |  |                        |             |                     | -See previous holes                          | 1         |
| 1027                                   |  |  |  |                        |             |                     | -Grinding at 1.8m - auger kicked off to side | 2         |
| 1026                                   |  |  |  |                        |             |                     | END of HOLE<br>-Refusal                      | 3         |
| 1025                                   |  |  |  |                        |             |                     |  | 4         |
| 1024                                   |  |  |  |                        |             |                     |  |           |

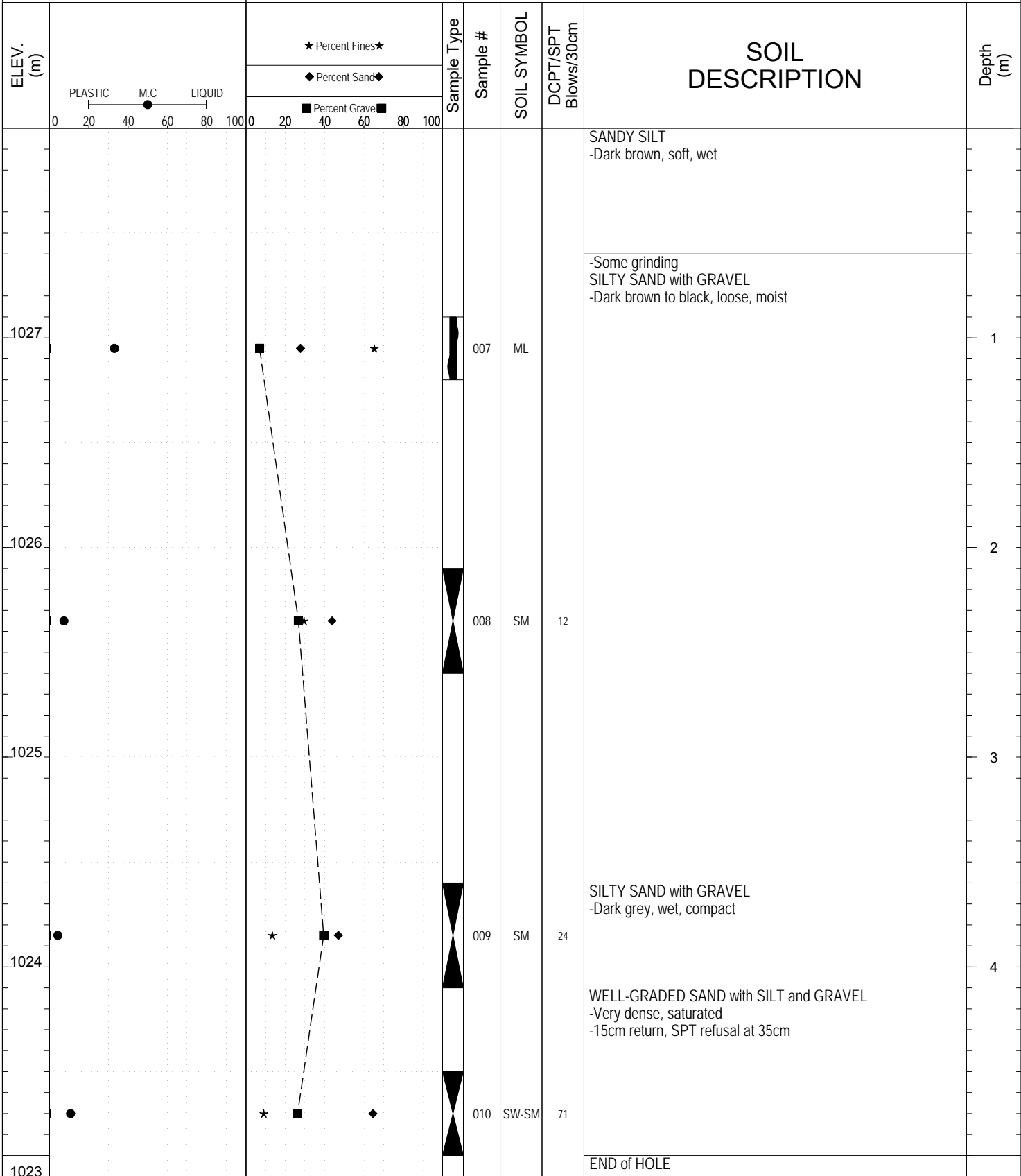


| SUBSURFACE EXPLORATION AND TEST REPORT |  | North Canal   |             | SOURCE/TP#: 902-5717.4 |             |                     |   |           |
|--|--|---|-------------|------------------------|-------------|---------------------|---|-----------|
| Gateway Drilling                       |  | Hess Bridge North, km 417   |             | PROJECT NO:            |             |                     |   |           |
| Solid stem/hollow stem                 |  | Coordinates: Z09V N6989855m E431378m  |             | ELEVATION: 1029m       |             |                     |   |           |
| SAMPLE TYPE                            |  | <input type="checkbox"/> UNDISTURBED <input type="checkbox"/> DCPT <input type="checkbox"/> AUGER <input type="checkbox"/> BULK <input checked="" type="checkbox"/> SPT <input type="checkbox"/> CORE |             |                        |             |                     |   |           |
| ELEV. (m)                              | ★ Percent Fines ★<br>◆ Percent Sand ◆<br>■ Percent Gravel ■                |   | Sample Type | Sample #               | SOIL SYMBOL | DCPT/SPT Blows/30cm | SOIL DESCRIPTION  | Depth (m) |
|  | PLASTIC      M.C      LIQUID<br>0      20      40      60      80      100 |   |             |                        |             |                     |   |           |
| 1028                                   |  |   |             |                        |             |                     | SILT with sand and gravel<br>-Dark brown, loose, wet  | 1         |
| 1027                                   |  |   |             |                        |             |                     | -Cobbles start  | 2         |
| 1026                                   |  |   |             |                        |             |                     | -Water coming up hole   | 3         |
| 1025                                   |  |   |             |                        |             |                     | -Through cobbles  | 4         |
| 1024                                   |  |   |             |                        | 003         | SM                  | SILTY SAND with GRAVEL<br>-Dark grey, wet, firm<br>-Driller refused SPT - concerned about heaving<br>-Water pumping up hole<br>-Hard drilling | 5         |
| 1023                                   |  |   |             |                        | 004         | ML                  | 31<br>SILT with SAND<br>-Dark grey, moist, wet, low plasticity<br>-15cm return  | 6         |
| 1022                                   |  |   |             |                        | 006         | SM                  | SILTY SAND with GRAVEL<br>-Dark grey, very stiff, moist   | 7         |
| 1021                                   |  |   |             |                        | 005         | GW                  | WELL-GRADED GRAVEL with SAND<br>-Dark grey, moist   | 8         |
| 1020                                   |  |   |             |                        |             |                     | END of HOLE<br>-Target depth reached  | 9         |
| 1019                                   |  |   |             |                        |             |                     |   |           |



|  |  |                                      |                      |
|--|--|--------------------------------------|----------------------|
| SUBSURFACE EXPLORATION AND TEST REPORT |  | North Canal                          | SOURCE/TP#: 902-5718 |
| Gateway Drilling                       |  | Hess Bridge South, km 417            | PROJECT NO:          |
| Solid stem/hollow stem                 |  | Coordinates: Z09V N6989830m E431369m | ELEVATION: 1028m     |

SAMPLE TYPE     UNDISTURBED     DCPT     AUGER     BULK     SPT     CORE



Highways and Public Works  
Transportation Engineering Branch

|                           |                                |
|---------------------------|--------------------------------|
| LOGGED BY: RS/DL          | Termination Depth: 4.9m        |
| COMPILED BY: R.Stilwell   | Complete: 9/13/2016 3:00:00 PM |
| REVIEWED BY: Dave Lorenzi | Pit #: Page 1 of 2             |

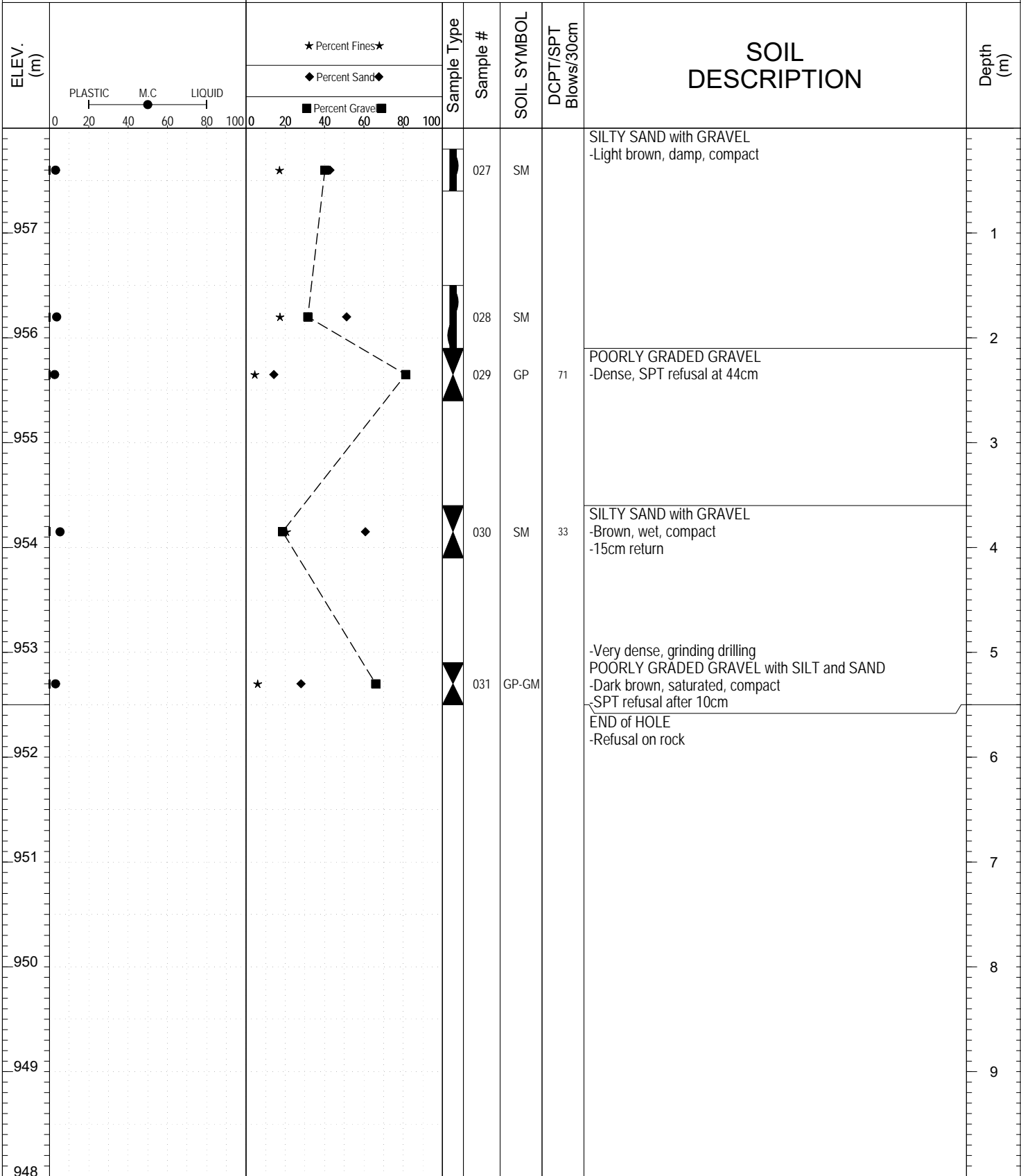
| SUBSURFACE EXPLORATION AND TEST REPORT |   | North Canal                          |             | SOURCE/TP#: 902-5719      |             |                                |  |           |
|--|---|--------------------------------------|-------------|---------------------------|-------------|--------------------------------|--|-----------|
| Gateway Drilling                       |   | Jeff Bridge North, km 412            |             | PROJECT NO:               |             |                                |  |           |
| Solid stem/hollow stem                 |   | Coordinates: Z09V N6987328m E429153m |             | ELEVATION: 1016m          |             |                                |  |           |
| SAMPLE TYPE                            | UNDISTURBED   | DCPT                                 | AUGER       | BULK                      | SPT         | CORE                           |  |           |
| ELEV. (m)                              | ★ Percent Fines★<br>◆ Percent Sand◆<br>■ Percent Gravel■                    |                                      | Sample Type | Sample #                  | SOIL SYMBOL | DCPT/SPT Blows/30cm            | SOIL DESCRIPTION   | Depth (m) |
|  | PLASTIC      M.C.      LIQUID<br>0      20      40      60      80      100 |                                      |             |                           |             |                                |  |           |
| 1015.5                                 |   |                                      | ■           | 011                       | SM          |                                | SILTY SAND with GRAVEL<br>-Brown, damp, compact  | 1         |
| 1014.5                                 |   |                                      | ■           | 013                       | ML          |                                | SILT<br>-Brown, damp, stiff<br>-Woody fragments (maybe old culvert)                        | 2         |
| 1012.5                                 |   |                                      | ■           | 014                       | ML          | 21                             | SANDY SILT<br>-Reddish brown/orange brown mottling<br>-Damp, firm<br><br>-Grinding, cobble | 4         |
| 1010.5                                 |   |                                      | ■           | 015                       | SM          | 24                             | SILTY SAND with GRAVEL<br>-Dark grey, loose to compact, wet                                | 6         |
| 1009.5                                 |   |                                      | ■           | 016                       | GM          | 18                             | SILTY GRAVEL with SAND<br>-Dark grey, loose to compact, wet                                | 7         |
| 1007.5                                 |   |                                      | ■           | 017                       | SM          | 26                             | SILTY SAND with GRAVEL<br>-Black, firm, wet  | 9         |
| 1006.5                                 |   |                                      | ■           | 018                       | SM          | 71                             | -Dark grey, damp, very dense   | 10        |
| 1005.5                                 |   |                                      |             |                           |             |                                | END of HOLE<br>-Target depth reached   |           |
|  |   |                                      |             | LOGGED BY: RS/DL          |             | Termination Depth: 10.5m       |  |           |
|  |   |                                      |             | COMPILED BY: R.Stilwell   |             | Complete: 9/13/2016 2:30:00 PM |  |           |
|  |   |                                      |             | REVIEWED BY: Dave Lorenzi |             | Pit #: Page 1 of 1             |  |           |

| SUBSURFACE EXPLORATION AND TEST REPORT |  | North Canal                          |   | SOURCE/TP#: 902-5720 |          |             |                     |   |           |
|--|--|--------------------------------------|---|----------------------|----------|-------------|---------------------|---|-----------|
| Gateway Drilling                       |  | Jeff Bridge South, km 412            |   | PROJECT NO:          |          |             |                     |   |           |
| Solid stem/hollow stem                 |  | Coordinates: Z09V N6987312m E429134m |   | ELEVATION: 1016m     |          |             |                     |   |           |
| SAMPLE TYPE                            | UNDISTURBED  | DCPT                                 | AUGER   | BULK                 | SPT      | CORE        |                     |   |           |
| ELEV. (m)                              | PLASTIC      M.C      LIQUID<br>0      20      40      60      80      100 |                                      | ★ Percent Fines ★<br>◆ Percent Sand ◆<br>■ Percent Gravel ■ | Sample Type          | Sample # | SOIL SYMBOL | DCPT/SPT Blows/30cm | SOIL DESCRIPTION  | Depth (m) |
|  | 0      20      40      60      80      100                                 |                                      |   |                      |          |             |                     |   |           |
| 1015.5                                 |  |                                      |   | ▲                    | 019      | GM          |                     | SILTY GRAVEL with SAND<br>-Brown, loose to compact, damp  | 1         |
| 1014.5                                 |  |                                      |   | ▲                    | 020      | GM          |                     | -Compact  | 2         |
| 1013.5                                 |  |                                      |   | ▲                    | 021      | GP-GM       | 32                  | POORLY GRADED GRAVEL with SILT and SAND<br>-Brown, compact, moist-wet<br>-2cm return, end of spoon blocked with rock  | 3         |
| 1012.5                                 |  |                                      |   | ▲                    | 022      | SM          | 22                  | -Very hard material, grinding drilling<br>-Smoothed out<br>-SILTY SAND with GRAVEL<br>-Dark brown, compact, saturated<br>-15cm return                       | 4         |
| 1011.5                                 |  |                                      |   | ▲                    | 023      | ML          | 16                  | SANDY SILT with GRAVEL<br>-Interbedded silt and gravel, 3cm layers<br>-Dark grey, stiff, damp silt<br>-Dark grey, compact, saturated gravel<br>-20cm return | 5         |
| 1010.5                                 |  |                                      |   | ▲                    | 024      | GM          | 51                  | -Some grinding<br>SILTY GRAVEL with SAND<br>-Dark grey, wet, stiff  | 6         |
| 1009.5                                 |  |                                      |   | ▲                    | 025      | SM          | 48                  | SILTY SAND with GRAVEL<br>-Hard<br>-50-50 split of gravel on top and crushed rock below<br>-Dark grey, very dense, saturated<br>-30cm Return                | 7         |
| 1008.5                                 |  |                                      |   | ▲                    | 026      | SM          | 86                  |   | 8         |
| 1007.5                                 |  |                                      |   | ▲                    |          |             |                     |   | 9         |
| 1006.5                                 |  |                                      |   | ▲                    |          |             |                     |   | 10        |
| 1005.5                                 |  |                                      |   | ▲                    |          |             |                     | END of HOLE<br>-Target depth reached  |           |



|  |  |                                      |                        |
|--|--|--------------------------------------|------------------------|
| SUBSURFACE EXPLORATION AND TEST REPORT |  | North Canal                          | SOURCE/TP#: 902-5721.1 |
| Gateway Drilling                       |  | MacMillian Bridge North, km 402      | PROJECT NO:            |
| Solid stem/hollow stem                 |  | Coordinates: Z09V N6981127m E425386m | ELEVATION: 958m        |

SAMPLE TYPE     UNDISTURBED     DCPT     AUGER     BULK     SPT     CORE



Highways and Public Works  
Transportation Engineering Branch

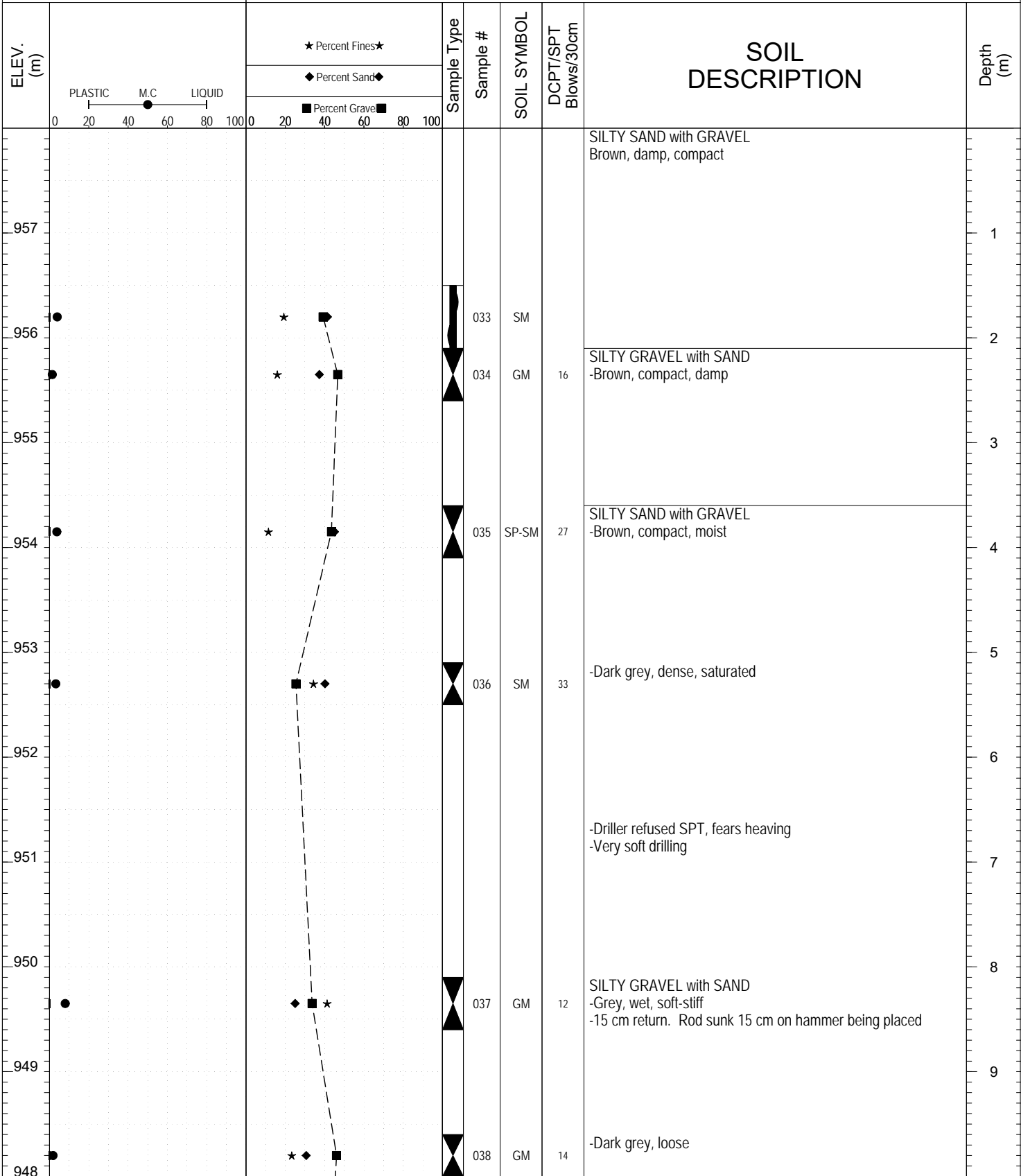
|                           |   |
|---------------------------|---|
| LOGGED BY: RS/DL          | Termination Depth: 5.5m                               |
| COMPILED BY: R.Stilwell   | Complete:   |
| REVIEWED BY: Dave Lorenzi | Pit #: <span style="float: right;">Page 1 of 1</span> |

|  |  |                                      |                               |                                |                               |   |                               |   |           |
|--|--|--------------------------------------|-------------------------------|--------------------------------|-------------------------------|---|-------------------------------|---|-----------|
| SUBSURFACE EXPLORATION AND TEST REPORT |  | North Canal                          |                               | SOURCE/TP#: 902-5721.2         |                               |   |                               |   |           |
| Gateway Drilling                       |  | MacMillian Bridge North, km 402      |                               | PROJECT NO:                    |                               |   |                               |   |           |
| Solid stem/hollow stem                 |  | Coordinates: Z09V N6981119m E425389m |                               | ELEVATION: 958m                |                               |   |                               |   |           |
| SAMPLE TYPE                            |  | <input type="checkbox"/> UNDISTURBED | <input type="checkbox"/> DCPT | <input type="checkbox"/> AUGER | <input type="checkbox"/> BULK | <input checked="" type="checkbox"/> SPT | <input type="checkbox"/> CORE |   |           |
| ELEV. (m)                              |  | ★ Percent Fines★                     |                               | Sample Type                    | Sample #                      | SOIL SYMBOL                             | DCPT/SPT Blows/30cm           | SOIL DESCRIPTION  | Depth (m) |
|  |  | ◆ Percent Sand◆                      |                               |                                |                               |   |                               |   |           |
| 957                                    |  |                                      |                               |                                |                               |   |                               |   | 1         |
| 956                                    |  | ★                                    | ◆ ■                           |                                | 032                           | GM                                      |                               | SILTY GRAVEL with SAND<br>-Drilled pilot hole to 3.6m with solid stem<br>-Dark brown, compact, damp | 2         |
| 955                                    |  |                                      |                               |                                |                               |   |                               |   | 3         |
| 954                                    |  |                                      |                               |                                |                               |   |                               | END of HOLE<br>-Refusal on rock   | 4         |
| 953                                    |  |                                      |                               |                                |                               |   |                               |   |           |



|  |  |                                      |                        |
|--|--|--------------------------------------|------------------------|
| SUBSURFACE EXPLORATION AND TEST REPORT |  | North Canal                          | SOURCE/TP#: 902-5721.3 |
| Gateway Drilling                       |  | MacMillian Bridge North, km 402      | PROJECT NO:            |
| Solid stem/hollow stem                 |  | Coordinates: Z09V N6981128m E425397m | ELEVATION: 958m        |

SAMPLE TYPE     UNDISTURBED     DCPT     AUGER     BULK     SPT     CORE



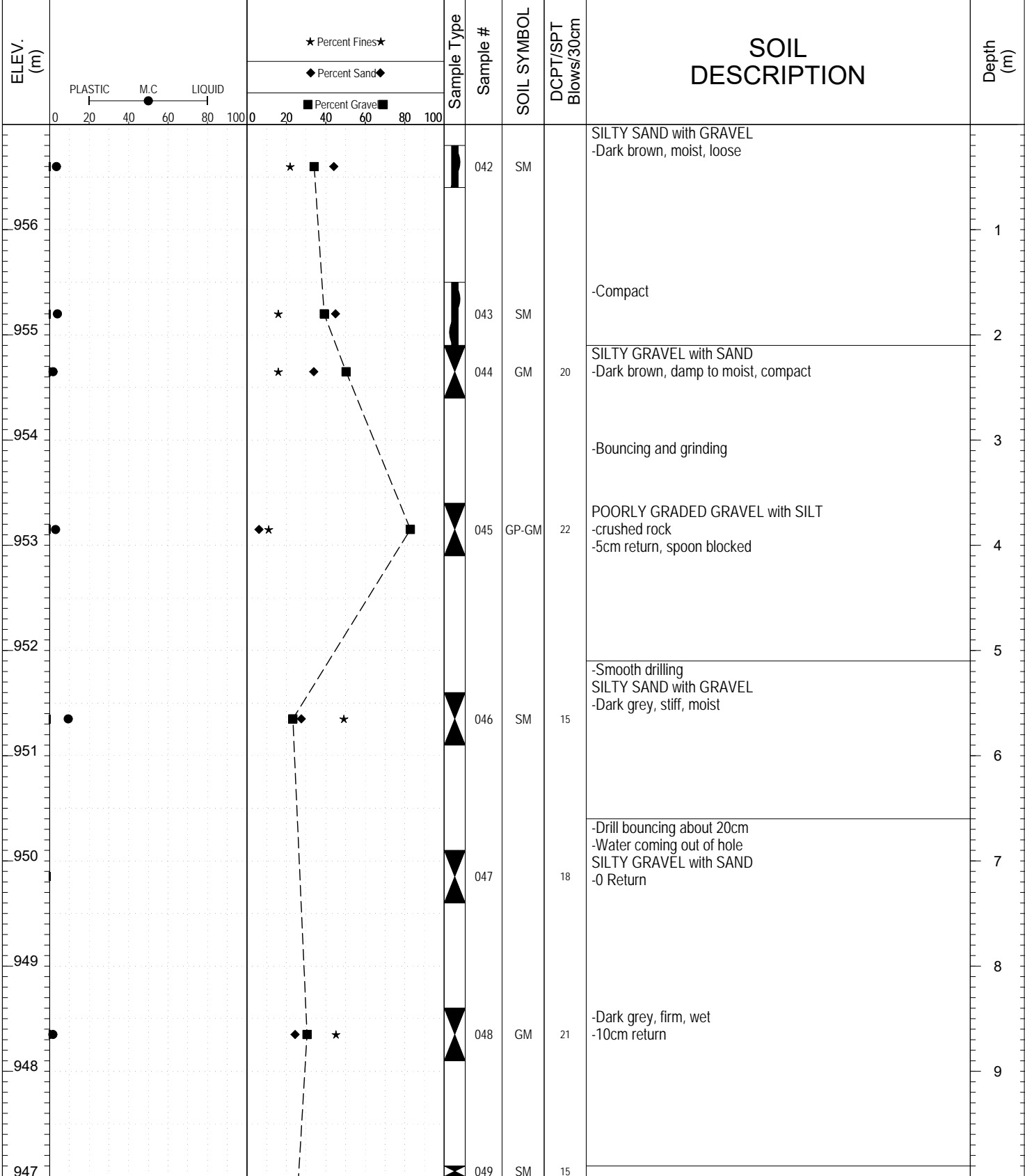
Highways and Public Works  
Transportation Engineering Branch

|                           |                                |
|---------------------------|--------------------------------|
| LOGGED BY: RS/DL          | Termination Depth: 14.7m       |
| COMPILED BY: R.Stilwell   | Complete: 9/14/2016 5:30:00 PM |
| REVIEWED BY: Dave Lorenzi | Pit #: Page 1 of 2             |


| SUBSURFACE EXPLORATION AND TEST REPORT |   | North Canal  |             | SOURCE/TP#: 902-5721.3 |             |                     |   |           |
|--|---|--|-------------|------------------------|-------------|---------------------|---|-----------|
| Gateway Drilling                       |   | MacMillian Bridge North, km 402  |             | PROJECT NO:            |             |                     |   |           |
| Solid stem/hollow stem                 |   | Coordinates: Z09V N6981128m E425397m   |             | ELEVATION: 958m        |             |                     |   |           |
| SAMPLE TYPE                            |   | <input type="checkbox"/> UNDISTURBED <input type="checkbox"/> DCPT <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input checked="" type="checkbox"/> SPT <input type="checkbox"/> CORE |             |                        |             |                     |   |           |
| ELEV. (m)                              | ★ Percent Fines ★<br>◆ Percent Sand ◆<br>■ Percent Gravel ■   |  | Sample Type | Sample #               | SOIL SYMBOL | DCPT/SPT Blows/30cm | SOIL DESCRIPTION  | Depth (m) |
|  | PLASTIC    M.C.    LIQUID<br>0    20    40    60    80    100 |  |             |                        |             |                     |   |           |
| 947                                    |   |  |             | 039                    |             | 75                  | -Harder drilling<br>-SPT Refusal at 35cm, 0 return                          | 11        |
| 946                                    |   |  |             |                        |             |                     |   | 12        |
| 945                                    | ●   | ★  | ■           | 040                    | SM          | 34                  | SILTY SAND with GRAVEL<br>-Dark grey, wet, loose to compact<br>-20cm Return | 13        |
| 944                                    | ●   | ★  | ■           | 021                    | SM          | 100                 | -Grey, dense  | 14        |
| 943                                    |   |  |             |                        |             |                     | END of HOLE<br>-Refusal on very hard material                               | 15        |
| 942                                    |   |  |             |                        |             |                     |   | 16        |
| 941                                    |   |  |             |                        |             |                     |   | 17        |
| 940                                    |   |  |             |                        |             |                     |   | 18        |
| 939                                    |   |  |             |                        |             |                     |   | 19        |
| 938                                    |   |  |             |                        |             |                     |   |           |



SAMPLE TYPE     UNDISTURBED     DCPT     AUGER     BULK     SPT     CORE



Highways and Public Works  
Transportation Engineering Branch

| SUBSURFACE EXPLORATION AND TEST REPORT   |   | North Canal                          |   | SOURCE/TP#: 902-5722 |                                |          |             |                     |  |           |
|--|---|--------------------------------------|---|----------------------|--------------------------------|----------|-------------|---------------------|--|-----------|
| Gateway Drilling   |   | MacMillian Bridge South, km 402      |   | PROJECT NO:          |                                |          |             |                     |  |           |
| Solid stem/hollow stem   |   | Coordinates: Z09V N6981103m E425344m |   | ELEVATION: 957m      |                                |          |             |                     |  |           |
| SAMPLE TYPE  |   | UNDISTURBED                          | DCPT  | AUGER                | BULK                           | SPT      | CORE        |                     |  |           |
| ELEV. (m)  | PLASTIC      M.C.      LIQUID<br>0      20      40      60      80      100 |                                      | ★ Percent Fines ★<br>◆ Percent Sand ◆<br>■ Percent Gravel ■ |                      | Sample Type                    | Sample # | SOIL SYMBOL | DCPT/SPT Blows/30cm | SOIL DESCRIPTION   | Depth (m) |
|  |   |                                      |   |                      |                                |          |             |                     |  |           |
| 946.5  |   |                                      |   |                      | ▲                              | 049      | SM          | 15                  | SILTY SAND with GRAVEL<br>-Blue-grey, firm to stiff, moist                       | 11        |
| 945.5  |   |                                      |   |                      | ▲                              | 050      | GM          | 21                  | SILTY GRAVEL with SAND<br>-Firm to dense, damp                                   | 12        |
| 944.5  |   |                                      |   |                      | ▲                              | 051      | ML          | 22                  | GRAVELLY SILT with SAND<br>-Grey, stiff, moist                                   | 13        |
| 943.5  |   |                                      |   |                      | ▲                              | 055      | GM          |                     | SILTY GRAVEL with SAND<br>-Blue-grey, firm to stiff, damp                        | 14        |
| 942.5  |   |                                      |   |                      | ▲                              | 052      | SM          | 53                  | SILTY SAND<br>-Grey, moist to wet, dense<br>-Some grinding                       | 15        |
| 941.5  |   |                                      |   |                      | ▲                              | 053      | SM          |                     | SILTY SAND with GRAVEL<br>-Grey, wet to moist, dense<br>-SPT refusal at 20cm     | 16        |
| 940.5  |   |                                      |   |                      | ▲                              | 054      | SM          |                     | -Grey, very dense to hard, damp<br>-SPT refusal at 20cm                          | 17        |
| 939.5  |   |                                      |   |                      |                                |          |             |                     |  | 18        |
| 938.5  |   |                                      |   |                      |                                |          |             |                     | -Silty sand with some gravel<br>-Dark grey, wet, compact<br>-SPT refusal at 22cm | 19        |
| 937.5  |   |                                      |   |                      |                                |          |             |                     | END of HOLE<br>-Target depth reached   |           |
|  Highways and Public Works<br>Transportation Engineering Branch |   | LOGGED BY: RS/DL                     |   |                      | Termination Depth: 19.5m       |          |             |                     |  |           |
|  |   | COMPILED BY: R.Stilwell              |   |                      | Complete: 9/14/2016 2:40:00 PM |          |             |                     |  |           |
|  |   | REVIEWED BY: Dave Lorenzi            |   |                      | Pit #: _____ Page 2 of 2       |          |             |                     |  |           |

| SUBSURFACE EXPLORATION AND TEST REPORT |   | North Canal                          |             | SOURCE/TP#: 902-5723 |             |                     |                  |           |    |    |  |     |     |    |  |  |     |
|--|---|--------------------------------------|-------------|----------------------|-------------|---------------------|------------------|-----------|----|----|--|-----|-----|----|--|--|-----|
| Gateway Drilling                       |   | Sheldon Bridge North, km 355         |             | PROJECT NO:          |             |                     |                  |           |    |    |  |     |     |    |  |  |     |
| Solid stem/hollow stem                 |   | Coordinates: Z09V N6956208m E396481m |             | ELEVATION: 879m      |             |                     |                  |           |    |    |  |     |     |    |  |  |     |
| SAMPLE TYPE                            | UNDISTURBED   | DCPT                                 | AUGER       | BULK                 | SPT         | CORE                |                  |           |    |    |  |     |     |    |  |  |     |
| ELEV. (m)                              | ★ Percent Fines ★<br>◆ Percent Sand ◆<br>■ Percent Gravel ■ |                                      | Sample Type | Sample #             | SOIL SYMBOL | DCPT/SPT Blows/30cm | SOIL DESCRIPTION | Depth (m) |    |    |  |     |     |    |  |  |     |
| 878.5                                  | 0   | 20                                   | 40          | 60                   | 80          | 100                 | 0                | 20        | 40 | 60 | 80   | 100 | 056 | SM |  | SILTY SAND with GRAVEL<br>-Dark brown, compact, damp | 0.5 |
| 878.0                                  | 0   | 20                                   | 40          | 60                   | 80          | 100                 | 11               | 057       | SM |    | -Loose<br>-25cm return   | 1.0 |     |    |  |  |     |
| 876.5                                  | 0   | 20                                   | 40          | 60                   | 80          | 100                 | 15               | 058       | SM |    | SILTY SAND<br>-Dark brown, moist, firm<br>-5cm return<br>-Some grinding on gravel<br>-Water table between 3 and 3.9m | 3.0 |     |    |  |  |     |
| 875.0                                  | 0   | 20                                   | 40          | 60                   | 80          | 100                 | 12               | 059       | ML |    | SAND SILT<br>-Brown, moist, firm<br>-Organic odour   | 4.0 |     |    |  |  |     |
| 873.5                                  | 0   | 20                                   | 40          | 60                   | 80          | 100                 | 36               | 060       | SM |    | SILTY SAND with GRAVEL<br>-Dark brown, hard, damp  | 6.0 |     |    |  |  |     |
| 872.0                                  | 0   | 20                                   | 40          | 60                   | 80          | 100                 |                  | 061       | SM |    | -Dark grey with white brands, compact, moist<br>-10cm return   | 7.0 |     |    |  |  |     |
| 871.5                                  |   |                                      |             |                      |             |                     |                  |           |    |    | END of HOLE<br>-Target depth reached   | 7.3 |     |    |  |  |     |
| 870.5                                  |   |                                      |             |                      |             |                     |                  |           |    |    |  | 8.0 |     |    |  |  |     |
| 870.0                                  |   |                                      |             |                      |             |                     |                  |           |    |    |  | 9.0 |     |    |  |  |     |
| 869.5                                  |   |                                      |             |                      |             |                     |                  |           |    |    |  |     |     |    |  |  |     |




| SUBSURFACE EXPLORATION AND TEST REPORT |  | North Canal                          |   | SOURCE/TP#: 902-5724.1 |             |          |             |                        |   |     |           |      |  |
|--|--|--------------------------------------|---|------------------------|-------------|----------|-------------|------------------------|---|-----|-----------|------|--|
| Gateway Drilling                       |  | Sheldon Bridge South, km 355         |   | PROJECT NO:            |             |          |             |                        |   |     |           |      |  |
| Solid stem/hollow stem                 |  | Coordinates: Z09V N6956199m E396471m |   | ELEVATION: 879m        |             |          |             |                        |   |     |           |      |  |
| SAMPLE TYPE                            |  | UNDISTURBED                          |   | DCPT                   |             | AUGER    |             | BULK                   |   | SPT |           | CORE |  |
| ELEV. (m)                              | PLASTIC      M.C      LIQUID<br>0      20      40      60      80      100 |                                      | ★ Percent Fines ★<br>◆ Percent Sand ◆<br>■ Percent Gravel ■ |                        | Sample Type | Sample # | SOIL SYMBOL | DCPT/SPT<br>Blows/30cm | SOIL DESCRIPTION  |     | Depth (m) |      |  |
|  | 0      20      40      60      80      100                                 |                                      | 0      20      40      60      80      100                  |                        |             |          |             |                        |   |     |           |      |  |
| 878.5                                  |  |                                      | ★   | ◆                      | SM          | 062      |             |                        | SILTY SAND with GRAVEL<br>-Dark brown, compact, damp  |     | 0.5       |      |  |
| 878.0                                  |  |                                      | ★   | ◆                      | SM          | 063      | 11          |                        | -Brown, moist, loose to compact<br>-30 cm return  |     | 1.0       |      |  |
| 876.5                                  |  |                                      | ★   | ◆                      | SM          | 064      | 18          |                        | -Compact<br>-25cm return  |     | 3.0       |      |  |
| 874.8                                  |  |                                      | ★   | ◆                      |             | 065      | 6           |                        | ORGANIC SILT trace sand<br>-Dark brown, soft, damp to moist<br>-fibrous and wood components<br>-50cm return, material swelling in spoon |     | 4.2       |      |  |
| 873.0                                  |  |                                      |   |                        |             |          |             |                        | END of HOLE<br>-Cant get SPT down, casing kicked to side. Hit something very hard   |     | 6.0       |      |  |



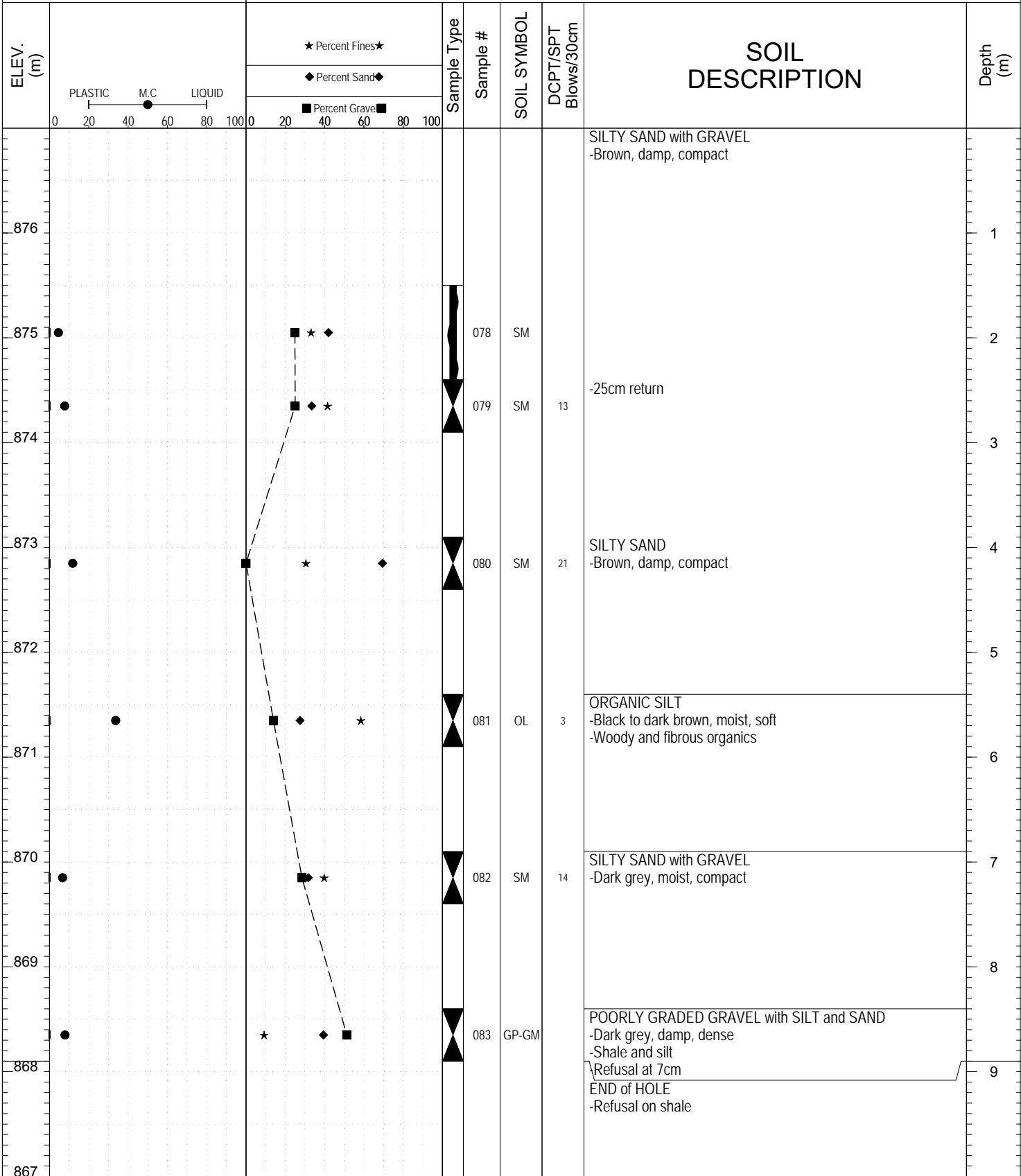
| SUBSURFACE EXPLORATION AND TEST REPORT |  | North Canal   |             | SOURCE/TP#: 902-5724.2 |             |                     |   |           |
|--|--|---|-------------|------------------------|-------------|---------------------|---|-----------|
| Gateway Drilling                       |  | Sheldon Bridge South, km 355  |             | PROJECT NO:            |             |                     |   |           |
| Solid stem/hollow stem                 |  | Coordinates: Z09V N6956200m E396468m  |             | ELEVATION: 879m        |             |                     |   |           |
| SAMPLE TYPE                            |  | <input type="checkbox"/> UNDISTURBED <input checked="" type="checkbox"/> DCPT <input checked="" type="checkbox"/> AUGER <input checked="" type="checkbox"/> BULK <input checked="" type="checkbox"/> SPT <input checked="" type="checkbox"/> CORE |             |                        |             |                     |   |           |
| ELEV. (m)                              | ★ Percent Fines ★<br>◆ Percent Sand ◆<br>■ Percent Gravel ■  |   | Sample Type | Sample #               | SOIL SYMBOL | DCPT/SPT Blows/30cm | SOIL DESCRIPTION  | Depth (m) |
|  | PLASTIC    M.C    LIQUID<br>0    20    40    60    80    100 |   |             |                        |             |                     |   |           |
| 878.5                                  |  | ★ 25 ◆ 45 ■ 30  | GM          | 066                    |             |                     | SILTY GRAVEL with SAND<br>-Brown, compact, damp - dry   | 1         |
| 878.0                                  |  | ★ 25 ◆ 45 ■ 30  | SM          | 067                    |             | 18                  | SILTY SAND with GRAVEL<br>-Brown, compact, damp - dry<br>-45cm Return   | 2         |
| 877.5                                  |  |   |             |                        |             |                     |   |           |
| 877.0                                  |  |   |             |                        |             |                     |   |           |
| 876.5                                  |  |   |             |                        |             |                     | -SPT refusal on rock at 7cm<br>-0 Return  | 3         |
| 876.0                                  |  |   |             |                        |             |                     |   |           |
| 875.5                                  | ● 45   |   |             |                        |             |                     | -Brown, wet, loose, trace organics<br>-20 cm return   | 4         |
| 875.0                                  |  |   |             |                        |             |                     |   |           |
| 874.5                                  |  |   |             |                        |             |                     |   |           |
| 874.0                                  |  |   |             |                        |             |                     |   |           |
| 873.5                                  | ● 45   |   |             |                        |             |                     | -Compact to loose   | 5         |
| 873.0                                  | ● 45   | ★ 25 ◆ 45 ■ 30  | SM          | 070                    |             | 14                  |   | 6         |
| 872.5                                  | ● 45   | ★ 25 ◆ 45 ■ 30  | GM          | 071                    |             | 68                  | SILTY GRAVEL with SAND<br>-Refusal at 42cm<br>-Dark grey, damp to moist, dense<br>-Fragmented shale, evidence of weathering | 7         |
| 872.0                                  |  |   |             |                        |             |                     | END of HOLE<br>-Refusal on rock   | 8         |
| 871.5                                  |  |   |             |                        |             |                     |   | 9         |
| 871.0                                  |  |   |             |                        |             |                     |   |           |
| 870.5                                  |  |   |             |                        |             |                     |   |           |
| 870.0                                  |  |   |             |                        |             |                     |   |           |
| 869.5                                  |  |   |             |                        |             |                     |   |           |



| SUBSURFACE EXPLORATION AND TEST REPORT   |   | North Canal                          |             | SOURCE/TP#: 902-5725           |             |                     |  |           |
|--|---|--------------------------------------|-------------|--------------------------------|-------------|---------------------|--|-----------|
| Gateway Drilling   |   | Cariboo Bridge North, km 319         |             | PROJECT NO:                    |             |                     |  |           |
| Solid stem/hollow stem   |   | Coordinates: Z09V N6929288m E376314m |             | ELEVATION: 879m                |             |                     |  |           |
| SAMPLE TYPE  |   | UNDISTURBED                          | DCPT        | AUGER                          | BULK        | SPT                 | CORE   |           |
| ELEV. (m)  | ★ Percent Fines ★<br>◆ Percent Sand ◆<br>■ Percent Gravel ■                 |                                      | Sample Type | Sample #                       | SOIL SYMBOL | DCPT/SPT Blows/30cm | SOIL DESCRIPTION   | Depth (m) |
|  | PLASTIC      M.C.      LIQUID<br>0      20      40      60      80      100 |                                      |             |                                |             |                     |  |           |
| 878  |   |                                      |             |                                |             |                     | WELL-GRADED SAND with SILT and GRAVEL<br>-Brown, compact, damp     | 1         |
| 877  | ●   | ★                                    | ■           | ◆                              | 072         | SW-SM               |  | 2         |
| 876  | ●   | ★                                    | ■           | ◆                              | 073         | SM                  | 11<br>SILTY SAND with GRAVEL<br>-Brown, loose, damp                | 3         |
| 875  | ●   | ★                                    | ■           | ◆                              | 074         | SM                  | 8<br>-Moist  | 4         |
| 874  |   |                                      |             |                                |             |                     |  | 5         |
| 873  | ●   | ★                                    | ■           | ◆                              | 075         | SM                  | 17<br>-Grey, moist to loose<br>-10cm return                        | 6         |
| 872  | ●   | ★                                    | ■           | ◆                              | 076         | SM                  | 13<br>-Compact, damp   | 7         |
| 871  |   |                                      |             |                                |             |                     |  | 8         |
| 870  | ●   | ★                                    | ■           | ◆                              | 077         | SM                  | -Shale and silt<br>-Dark grey, damp, fissile<br>-Vertically bedded | 9         |
| 869  |   |                                      |             |                                |             |                     | END of HOLE<br>-Refusal on rock                                    |           |
|  Highways and Public Works<br>Transportation Engineering Branch |   | LOGGED BY: RS/DL                     |             | Termination Depth: 8.9m        |             |                     |  |           |
|  |   | COMPILED BY: R.Stilwell              |             | Complete: 9/16/2016 4:10:00 PM |             |                     |  |           |
|  |   | REVIEWED BY: Dave Lorenzi            |             | Pit #: Page 1 of 1             |             |                     |  |           |

|  |  |                                      |                      |
|--|--|--------------------------------------|----------------------|
| SUBSURFACE EXPLORATION AND TEST REPORT |  | North Canal                          | SOURCE/TP#: 902-5726 |
| Gateway Drilling                       |  | Cariboo Bridge South, km 319         | PROJECT NO:          |
| Solid stem/hollow stem                 |  | Coordinates: Z09V N6929281m E376308m | ELEVATION: 877m      |

SAMPLE TYPE     UNDISTURBED     DCPT     AUGER     BULK     SPT     CORE



Highways and Public Works  
Transportation Engineering Branch

|                           |                                |
|---------------------------|--------------------------------|
| LOGGED BY: RS/DL          | Termination Depth: 8.9m        |
| COMPILED BY: R.Stilwell   | Complete: 9/17/2016 9:50:00 AM |
| REVIEWED BY: Dave Lorenzi | Pit #: Page 1 of 1             |

| SUBSURFACE EXPLORATION AND TEST REPORT |  | North Canal  |             | SOURCE/TP#: 902-5727 |             |                     |  |           |
|--|--|--|-------------|----------------------|-------------|---------------------|--|-----------|
| Gateway Drilling                       |  | Deep Creek,  |             | PROJECT NO:          |             |                     |  |           |
| Solid stem/hollow stem                 |  | Coordinates: Z09V N6883144m E340232m   |             | ELEVATION: 775m      |             |                     |  |           |
| SAMPLE TYPE                            |  | <input type="checkbox"/> UNDISTURBED <input type="checkbox"/> DCPT <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input checked="" type="checkbox"/> SPT <input type="checkbox"/> CORE |             |                      |             |                     |  |           |
| ELEV. (m)                              | ★ Percent Fines★<br>◆ Percent Sand◆<br>■ Percent Gravel■     |  | Sample Type | Sample #             | SOIL SYMBOL | DCPT/SPT Blows/30cm | SOIL DESCRIPTION   | Depth (m) |
|  | PLASTIC    M.C    LIQUID<br>0    20    40    60    80    100 |  |             |                      |             |                     |  |           |
| 774.5                                  | 10   | 50   | 5           | 084                  | ML          |                     | SANDY SILT with GRAVEL<br>-Dark brown, stiff, damp   | 1         |
| 773.5                                  | 10   | 45   | 5           | 085                  | SM          |                     | SILTY SAND with GRAVEL<br>-Dark brown, compact, damp   | 2         |
| 772.5                                  | 10   | 45   | 5           | 086                  | SM          | 9                   | -Brown, loose to compact   | 3         |
| 771.5                                  | 10   | 45   | 5           | 087                  | SM          | 25                  | Decomposed rock<br>-Orange brown and white layers of shale<br>-Very fissile, dry, dense            | 4         |
| 770.5                                  | 10   | 45   | 5           | 088                  | GP-GM       | 93                  | POORLY GRADED GRAVEL with SILT and SAND<br>-Crushed rock<br>-Black, wet, mostly not easily fissile | 5         |
| 769.5                                  |  |  |             |                      |             |                     | END of HOLE<br>-Refusal on rock  | 6         |
| 768.5                                  |  |  |             |                      |             |                     |  | 7         |
| 767.5                                  |  |  |             |                      |             |                     |  | 8         |
| 766.5                                  |  |  |             |                      |             |                     |  | 9         |
| 765.5                                  |  |  |             |                      |             |                     |  |           |

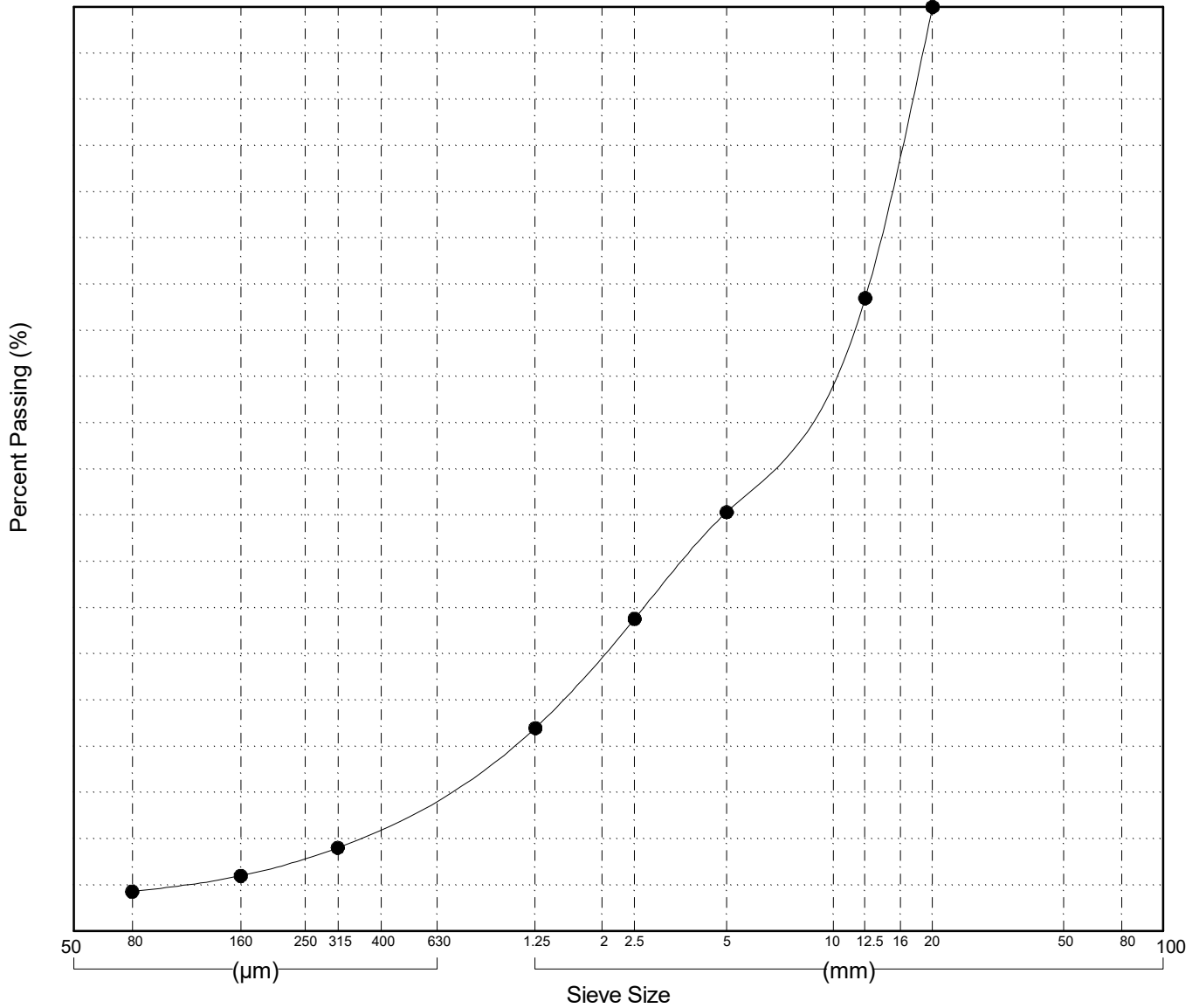


|                     |                                     |                        |
|---------------------|-------------------------------------|------------------------|
| GRAIN SIZE ANALYSIS | Hess Bridge North                   | SOURCE/TP#: 902-5717.1 |
| Gateway Drilling    | km 417                              | PROJECT NO:            |
| 4 Solid Stem        | Coordinates:Z09V N6989855m E431380m | ELEVATION: 1029m       |

Master Revised July 2013

| Field# | Lab# | Depth      | Classification                   | %H2O  | LL    | PL    | PI   | Cc   | Cu   |      |      |       |       |       |       |            |      |      |      |
|--------|------|------------|----------------------------------|-------|-------|-------|------|------|------|------|------|-------|-------|-------|-------|------------|------|------|------|
| ● 001  | 337  | 1.2 to 1.7 | WELL-GRADED GRAVEL with SAND(GW) | 8.1   | NP    | NP    | NP   | 1.3  | 25.1 |      |      |       |       |       |       |            |      |      |      |
| Field# | Lab# | 100.0      | 80.0                             | 50.0  | 25.0  | 20.0  | 12.5 | 10.0 | 5.0  | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080 | %Breakdown |      |      |      |
| ● 001  | 337  | 100.0      | 100.0                            | 100.0 | 100.0 | 100.0 | 68.5 | 63.2 | 45.3 | 33.8 | 22.0 | 15.5  | 9.0   | 6.0   | 4.3   | Gravel     | Sand | Silt | Clay |
|        |      |            |                                  |       |       |       |      |      |      |      |      |       |       |       |       | 54.7       | 41.1 | 4.3  |      |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |
|      |      |        |        |        |        |

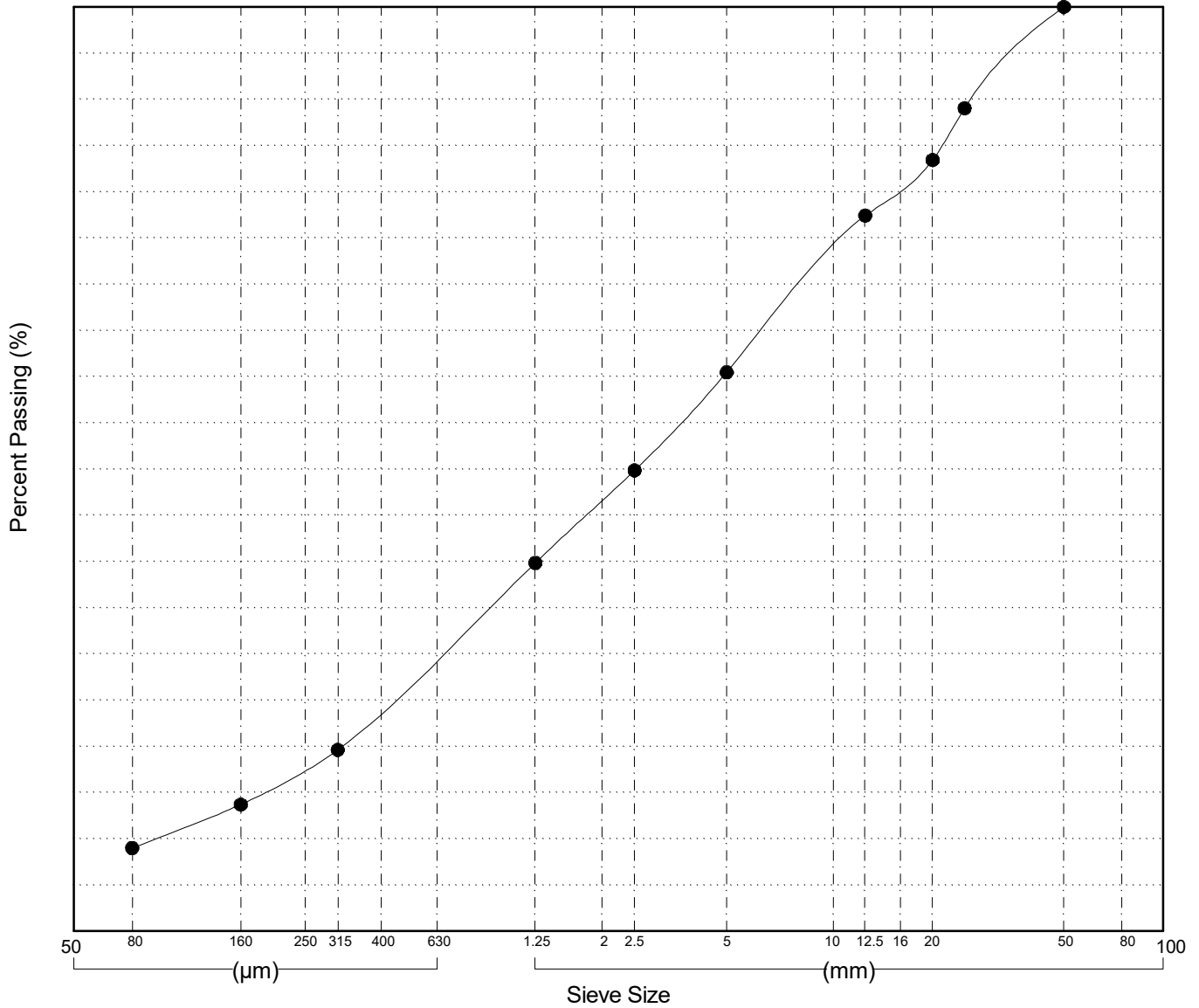


|                     |                                     |                        |
|---------------------|-------------------------------------|------------------------|
| GRAIN SIZE ANALYSIS | Hess Bridge North                   | SOURCE/TP#: 902-5717.2 |
| Gateway Drilling    | km 417                              | PROJECT NO:            |
| 4 Solid Stem        | Coordinates:Z09V N6989851m E431371m | ELEVATION: 1029m       |

Master Revised July 2013

| Field# | Lab# | Depth      | Classification                               | %H <sub>2</sub> O | LL   | PL   | PI   | C <sub>c</sub> | C <sub>u</sub> |      |      |       |       |       |       |      |      |     |
|--------|------|------------|--|-------------------|------|------|------|----------------|----------------|------|------|-------|-------|-------|-------|------|------|-----|
| ● 002  | 338  | 1.2 to 1.7 | WELL-GRADED SAND with SILT and GRAVEL(SW-SM) | 3.1               | NP   | NP   | NP   | 1.0            | 52.5           |      |      |       |       |       |       |      |      |     |
| Field# | Lab# |            |  |                   |      |      |      | %Breakdown     |                |      |      |       |       |       |       |      |      |     |
| ● 002  | 338  |            |  |                   |      |      |      | Gravel         | Sand           | Silt | Clay |       |       |       |       |      |      |     |
|        |      | 100.0      | 80.0   | 50.0              | 25.0 | 20.0 | 12.5 | 10.0           | 5.0            | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080 | 39.5 | 51.5 | 9.0 |
|        |      | 100.0      | 100.0  | 100.0             | 89.0 | 83.4 | 77.4 | 73.5           | 60.5           | 49.9 | 39.9 | 29.8  | 19.6  | 13.7  | 9.0   |      |      |     |
|        |      |            |  |                   |      |      |      |                |                |      |      |       |       |       |       |      |      |     |
|        |      |            |  |                   |      |      |      |                |                |      |      |       |       |       |       |      |      |     |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |
|      |      |        |        |        |        |



Highways and Public Works  
Transportation Engineering Branch

LOGGED BY: RS/DL  
COMPILED BY: R.Stilwell  
REVIEWED BY: Dave Lorenzi

Pit #  
Complete:

|                     |                                     |                        |
|---------------------|-------------------------------------|------------------------|
| GRAIN SIZE ANALYSIS | Hess Bridge North                   | SOURCE/TP#: 902-5717.4 |
| Gateway Drilling    | km 417                              | PROJECT NO:            |
| 4 Solid Stem        | Coordinates:Z09V N6989855m E431378m | ELEVATION: 1029m       |

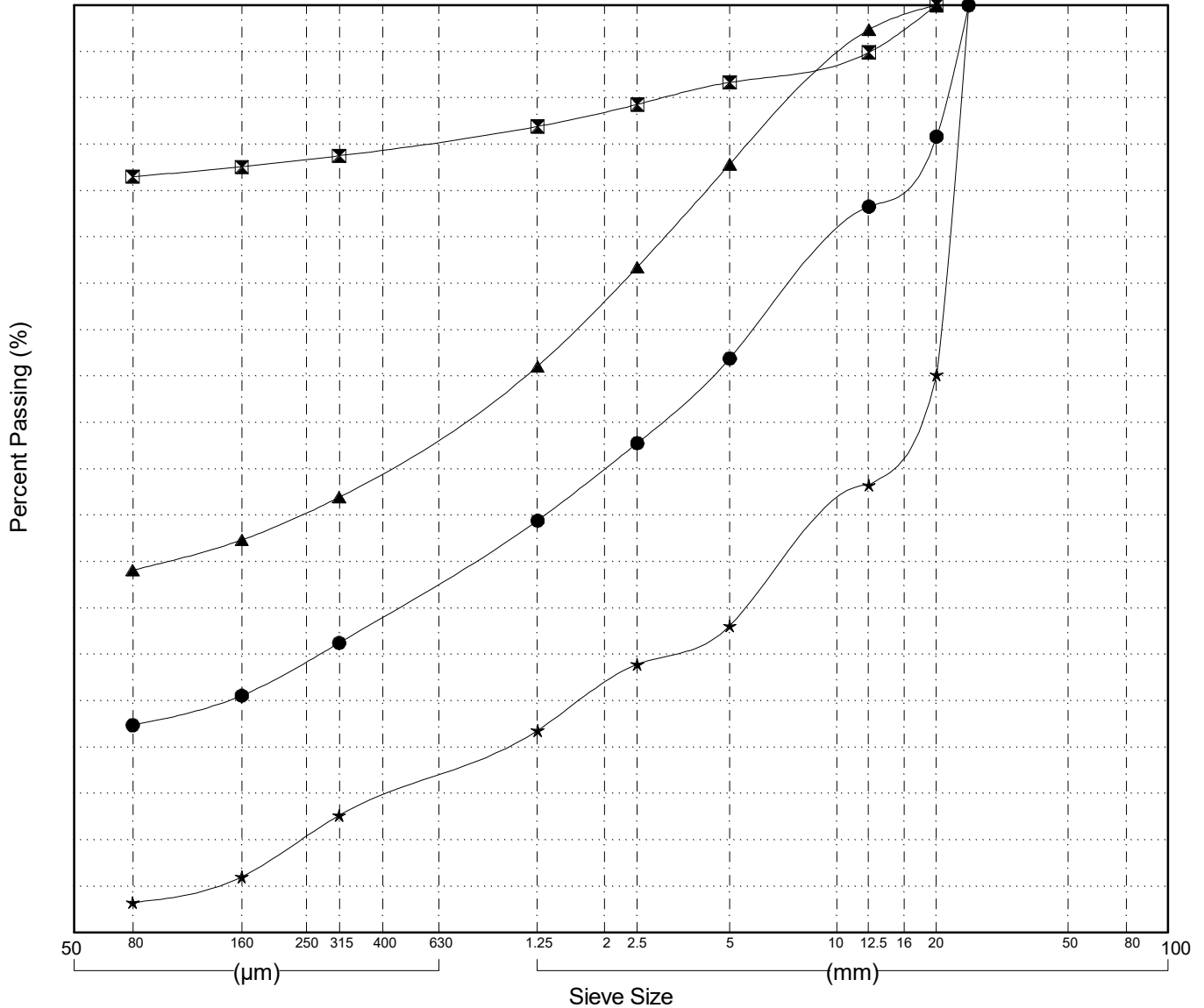
Master Revised July 2013

| Field# | Lab# | Depth      | Classification                   | %H2O | LL | PL | PI | Cc  | Cu   |
|--------|------|------------|----------------------------------|------|----|----|----|-----|------|
| ● 003  | 339  | 4.0 to 4.2 | SILTY SAND with GRAVEL(SM)       | 13.6 | NP | NP | NP |     |      |
| ☒ 004  | 340  | 5.7 to 6.1 | SILT with SAND(ML)               | 13.6 | NP | NP | NP |     |      |
| ▲ 006  | 342  | 6.9 to 7.2 | SILTY SAND with GRAVEL(SM)       | 11.8 | NP | NP | NP |     |      |
| ★ 005  | 341  | 7.2 to 7.7 | WELL-GRADED GRAVEL with SAND(GW) | 5.5  | NP | NP | NP | 1.8 | 82.8 |

| Field# | Lab# | % PASSING | Sieve Size (mm) |       |       |       |      |      |      |      |      |      |       |       |       |       | % Breakdown |      |      |      |
|--------|------|-----------|-----------------|-------|-------|-------|------|------|------|------|------|------|-------|-------|-------|-------|-------------|------|------|------|
|        |      |           | 100.0           | 80.0  | 50.0  | 25.0  | 20.0 | 12.5 | 10.0 | 5.0  | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080 | Gravel      | Sand | Silt | Clay |
| ● 003  | 339  | 100.0     | 100.0           | 100.0 | 100.0 | 100.0 | 85.8 | 78.3 | 74.5 | 61.9 | 52.8 | 44.4 | 37.9  | 31.2  | 25.6  | 22.4  | 38.1        | 39.5 | 22.4 |      |
| ☒ 004  | 340  | 100.0     | 100.0           | 100.0 | 100.0 | 100.0 | 94.9 | 94.2 | 91.7 | 89.3 | 86.9 | 85.3 | 83.8  | 82.6  | 81.5  | 8.3   | 10.2        | 81.5 |      |      |
| ▲ 006  | 342  | 100.0     | 100.0           | 100.0 | 100.0 | 100.0 | 97.4 | 94.0 | 82.9 | 71.8 | 61.1 | 54.0 | 46.9  | 42.3  | 39.1  | 17.1  | 43.8        | 39.1 |      |      |
| ★ 005  | 341  | 100.0     | 100.0           | 100.0 | 100.0 | 60.2  | 48.2 | 44.7 | 33.1 | 28.9 | 21.8 | 17.3 | 12.7  | 6.0   | 3.3   | 66.9  | 29.8        | 3.3  |      |      |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |



|                     |                                     |                      |
|---------------------|-------------------------------------|----------------------|
| GRAIN SIZE ANALYSIS | Hess Bridge South                   | SOURCE/TP#: 902-5718 |
| Gateway Drilling    | km 417                              | PROJECT NO:          |
| 4 Solid Stem        | Coordinates:Z09V N6989830m E431369m | ELEVATION: 1028m     |

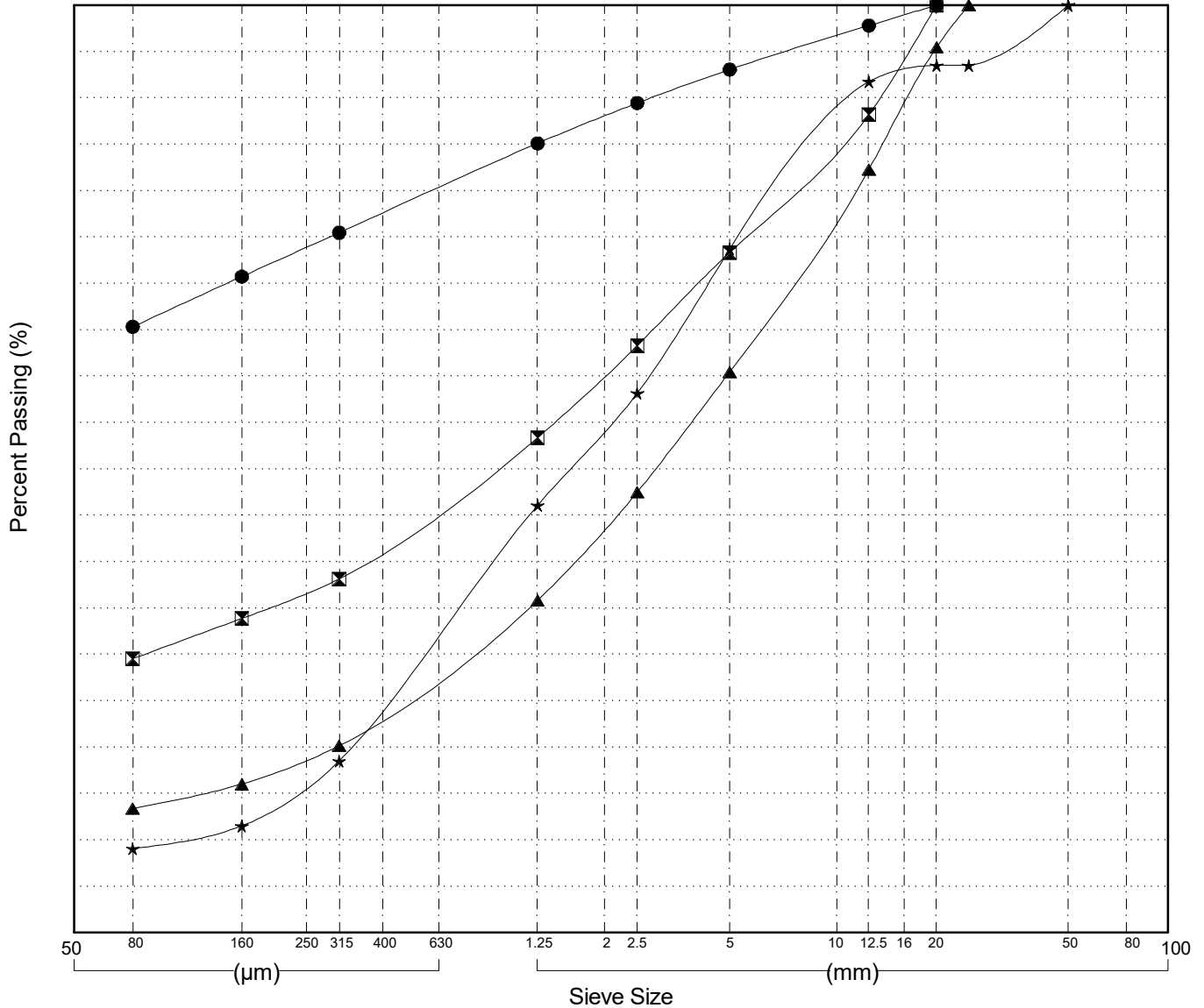
Master Revised July 2013

| Field# | Lab# | Depth      | Classification                               | %H2O | LL | PL | PI | Cc  | Cu   |
|--------|------|------------|--|------|----|----|----|-----|------|
| ● 007  | 343  | 0.9 to 1.2 | SANDY SILT(ML)                               | 33.0 | NP | NP | NP |     |      |
| ☒ 008  | 344  | 2.1 to 2.6 | SILTY SAND with GRAVEL(SM)                   | 7.3  | NP | NP | NP |     |      |
| ▲ 009  | 345  | 3.6 to 4.1 | SILTY SAND with GRAVEL(SM)                   | 4.2  | NP | NP | NP |     |      |
| ★ 010  | 346  | 4.5 to 4.9 | WELL-GRADED SAND with SILT and GRAVEL(SW-SM) | 10.7 | NP | NP | NP | 1.2 | 27.0 |

| Field# | Lab# | % PASSING | Sieve Size (mm) |       |       |       |       |      |      |      |      |      |       |       |       | % Breakdown |        |      |      |
|--------|------|-----------|-----------------|-------|-------|-------|-------|------|------|------|------|------|-------|-------|-------|-------------|--------|------|------|
|        |      |           | 100.0           | 80.0  | 50.0  | 25.0  | 20.0  | 12.5 | 10.0 | 5.0  | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080       | Gravel | Sand | Silt |
| ● 007  | 343  | 100.0     | 100.0           | 100.0 | 100.0 | 100.0 | 100.0 | 97.8 | 96.7 | 93.1 | 89.5 | 85.1 | 80.3  | 75.5  | 70.7  | 65.3        | 6.9    | 27.7 | 65.3 |
| ☒ 008  | 344  | 100.0     | 100.0           | 100.0 | 100.0 | 100.0 | 88.2  | 84.8 | 73.3 | 63.3 | 53.4 | 45.8 | 38.1  | 33.9  | 29.5  | 26.7        | 43.8   | 29.5 |      |
| ▲ 009  | 345  | 100.0     | 100.0           | 100.0 | 100.0 | 95.5  | 82.3  | 77.2 | 60.4 | 47.5 | 35.8 | 28.0 | 20.2  | 16.0  | 13.4  | 39.6        | 47.0   | 13.4 |      |
| ★ 010  | 346  | 100.0     | 100.0           | 100.0 | 93.5  | 93.5  | 91.8  | 87.6 | 73.7 | 58.2 | 46.1 | 32.4 | 18.5  | 11.5  | 9.1   | 26.3        | 64.6   | 9.1  |      |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |



Highways and Public Works  
Transportation Engineering Branch

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|                     |                                     |                      |
|---------------------|-------------------------------------|----------------------|
| GRAIN SIZE ANALYSIS | Jeff Bridge North                   | SOURCE/TP#: 902-5719 |
| Gateway Drilling    | km 412                              | PROJECT NO:          |
| 4 Solid Stem        | Coordinates:Z09V N6987328m E429153m | ELEVATION: 1016m     |

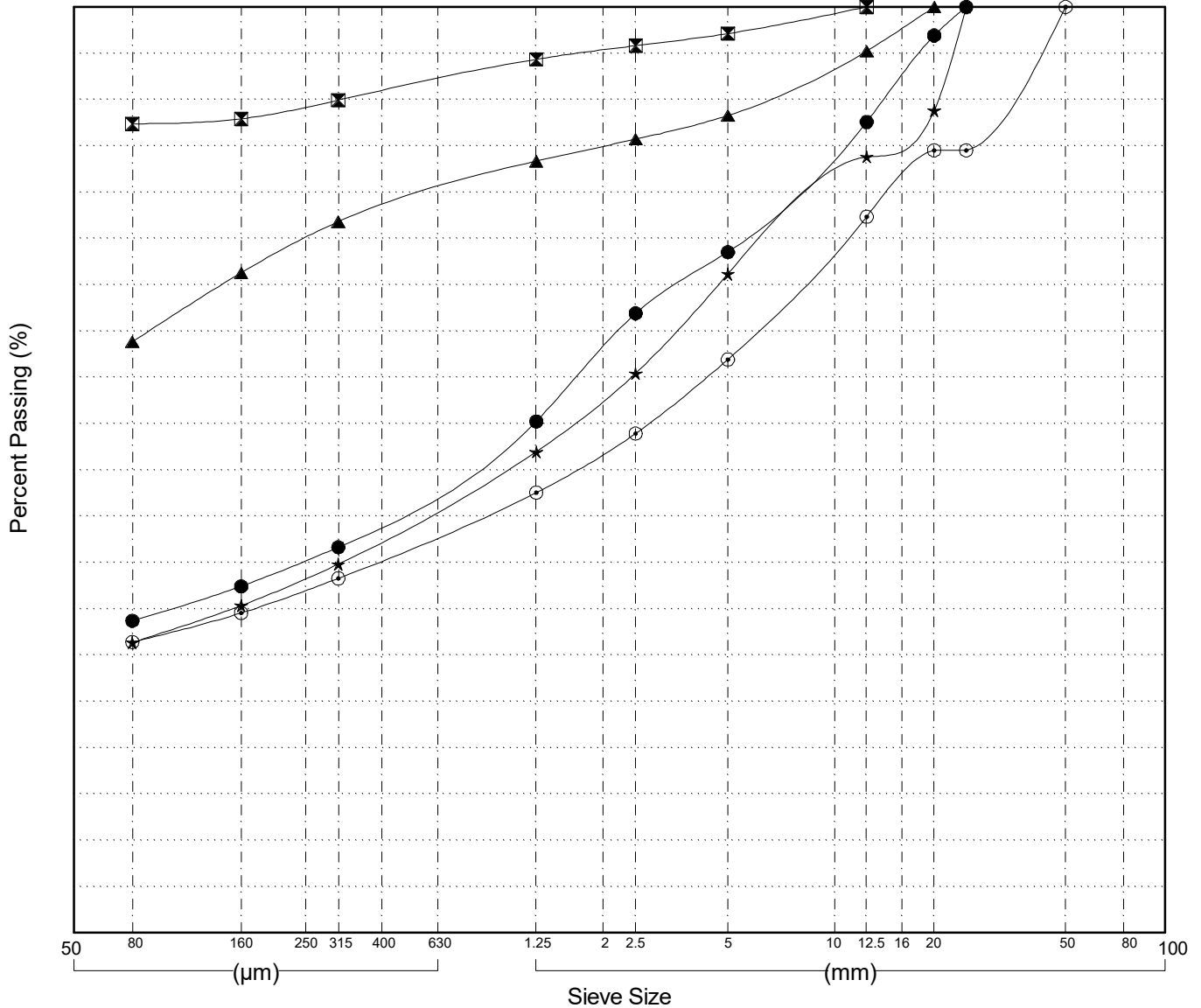
Master Revised July 2013

| Field# | Lab# | Depth      | Classification             | %H2O | LL | PL | PI | Cc | Cu |
|--------|------|------------|----------------------------|------|----|----|----|----|----|
| ● 011  | 347  | 0.6 to 0.8 | SILTY SAND with GRAVEL(SM) | 3.5  | NP | NP | NP |    |    |
| ☒ 013  | 348  | 1.5 to 1.4 | SILT(ML)                   | 19.1 | NP | NP | NP |    |    |
| ▲ 014  | 349  | 3.6 to 4.1 | SANDY SILT(ML)             | 22.0 | NP | NP | NP |    |    |
| ★ 015  | 350  | 5.1 to 5.5 | SILTY SAND with GRAVEL(SM) | 2.5  | NP | NP | NP |    |    |
| ⊙ 016  | 351  | 6.6 to 7.1 | SILTY GRAVEL with SAND(GM) | 4.0  | NP | NP | NP |    |    |

| Field# | Lab# | % PASSING | Sieve Size (mm) |       |       |       |       |       |      |      |      |      |       |       |       | % Breakdown |        |      |      |      |
|--------|------|-----------|-----------------|-------|-------|-------|-------|-------|------|------|------|------|-------|-------|-------|-------------|--------|------|------|------|
|        |      |           | 100.0           | 80.0  | 50.0  | 25.0  | 20.0  | 12.5  | 10.0 | 5.0  | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080       | Gravel | Sand | Silt | Clay |
| ● 011  | 347  | 100.0     | 100.0           | 100.0 | 100.0 | 100.0 | 96.9  | 87.6  | 84.3 | 73.5 | 66.9 | 55.2 | 48.5  | 41.6  | 37.4  | 33.7        | 26.5   | 39.8 | 33.7 |      |
| ☒ 013  | 348  | 100.0     | 100.0           | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 99.3 | 97.1 | 95.8 | 94.3 | 92.1  | 89.9  | 87.9  | 87.4        | 2.9    | 9.7  | 87.4 |      |
| ▲ 014  | 349  | 100.0     | 100.0           | 100.0 | 100.0 | 100.0 | 95.2  | 93.6  | 88.3 | 85.7 | 83.3 | 80.1 | 76.8  | 71.3  | 63.8  | 11.7        | 24.4   | 63.8 |      |      |
| ★ 015  | 350  | 100.0     | 100.0           | 100.0 | 100.0 | 88.8  | 83.8  | 80.9  | 71.2 | 60.4 | 52.0 | 45.9 | 39.8  | 35.3  | 31.4  | 28.8        | 39.8   | 31.4 |      |      |
| ⊙ 016  | 351  | 100.0     | 100.0           | 100.0 | 84.5  | 84.5  | 77.3  | 73.8  | 61.9 | 53.9 | 47.5 | 42.9 | 38.3  | 34.5  | 31.4  | 38.1        | 30.5   | 31.4 |      |      |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |



Highways and Public Works  
Transportation Engineering Branch

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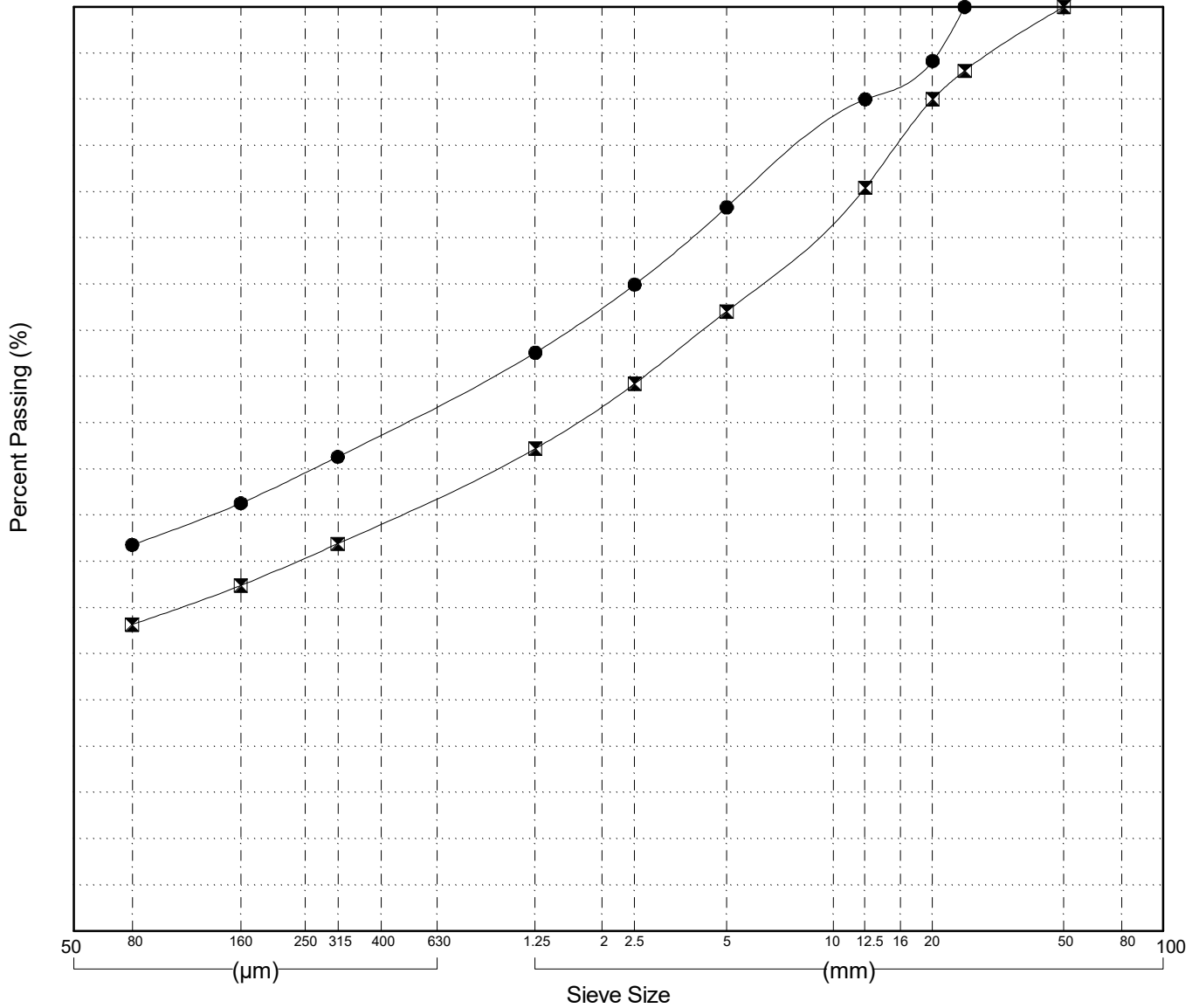
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|                     |                                      |                      |
|---------------------|--------------------------------------|----------------------|
| GRAIN SIZE ANALYSIS | Jeff Bridge North                    | SOURCE/TP#: 902-5719 |
| Gateway Drilling    | km 412                               | PROJECT NO:          |
| 4 Solid Stem        | Coordinates: Z09V N6987328m E429153m | ELEVATION: 1016m     |

Master Revised July 2013

| Field# | Lab# | Depth       | Classification             | %H2O  | LL    | PL   | PI   | Cc   | Cu   |      |      |       |       |       |       |            |      |      |      |  |
|--------|------|-------------|----------------------------|-------|-------|------|------|------|------|------|------|-------|-------|-------|-------|------------|------|------|------|--|
| ● 017  | 352  | 8.1 to 8.6  | SILTY SAND with GRAVEL(SM) | 7.4   | NP    | NP   | NP   |      |      |      |      |       |       |       |       |            |      |      |      |  |
| ☒ 018  | 353  | 9.6 to 10.1 | SILTY SAND with GRAVEL(SM) | 6.6   | NP    | NP   | NP   |      |      |      |      |       |       |       |       |            |      |      |      |  |
|        |      |             |                            |       |       |      |      |      |      |      |      |       |       |       |       |            |      |      |      |  |
|        |      |             |                            |       |       |      |      |      |      |      |      |       |       |       |       |            |      |      |      |  |
|        |      |             |                            |       |       |      |      |      |      |      |      |       |       |       |       |            |      |      |      |  |
| Field# | Lab# | 100.0       | 80.0                       | 50.0  | 25.0  | 20.0 | 12.5 | 10.0 | 5.0  | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080 | %Breakdown |      |      |      |  |
| ● 017  | 352  | 100.0       | 100.0                      | 100.0 | 100.0 | 94.1 | 90.0 | 87.3 | 78.3 | 70.0 | 62.6 | 57.0  | 51.3  | 46.3  | 41.8  | Gravel     | Sand | Silt | Clay |  |
| ☒ 018  | 353  | 100.0       | 100.0                      | 100.0 | 93.1  | 90.0 | 80.4 | 77.3 | 67.1 | 59.2 | 52.2 | 47.1  | 41.9  | 37.4  | 33.2  | 32.9       | 33.9 | 33.2 |      |  |
|        |      |             |                            |       |       |      |      |      |      |      |      |       |       |       |       |            |      |      |      |  |
|        |      |             |                            |       |       |      |      |      |      |      |      |       |       |       |       |            |      |      |      |  |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |



Highways and Public Works  
Transportation Engineering Branch

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|                     |                                     |                      |
|---------------------|-------------------------------------|----------------------|
| GRAIN SIZE ANALYSIS | Jeff Bridge South                   | SOURCE/TP#: 902-5720 |
| Gateway Drilling    | km 412                              | PROJECT NO:          |
| 4 Solid Stem        | Coordinates:Z09V N6987312m E429134m | ELEVATION: 1016m     |

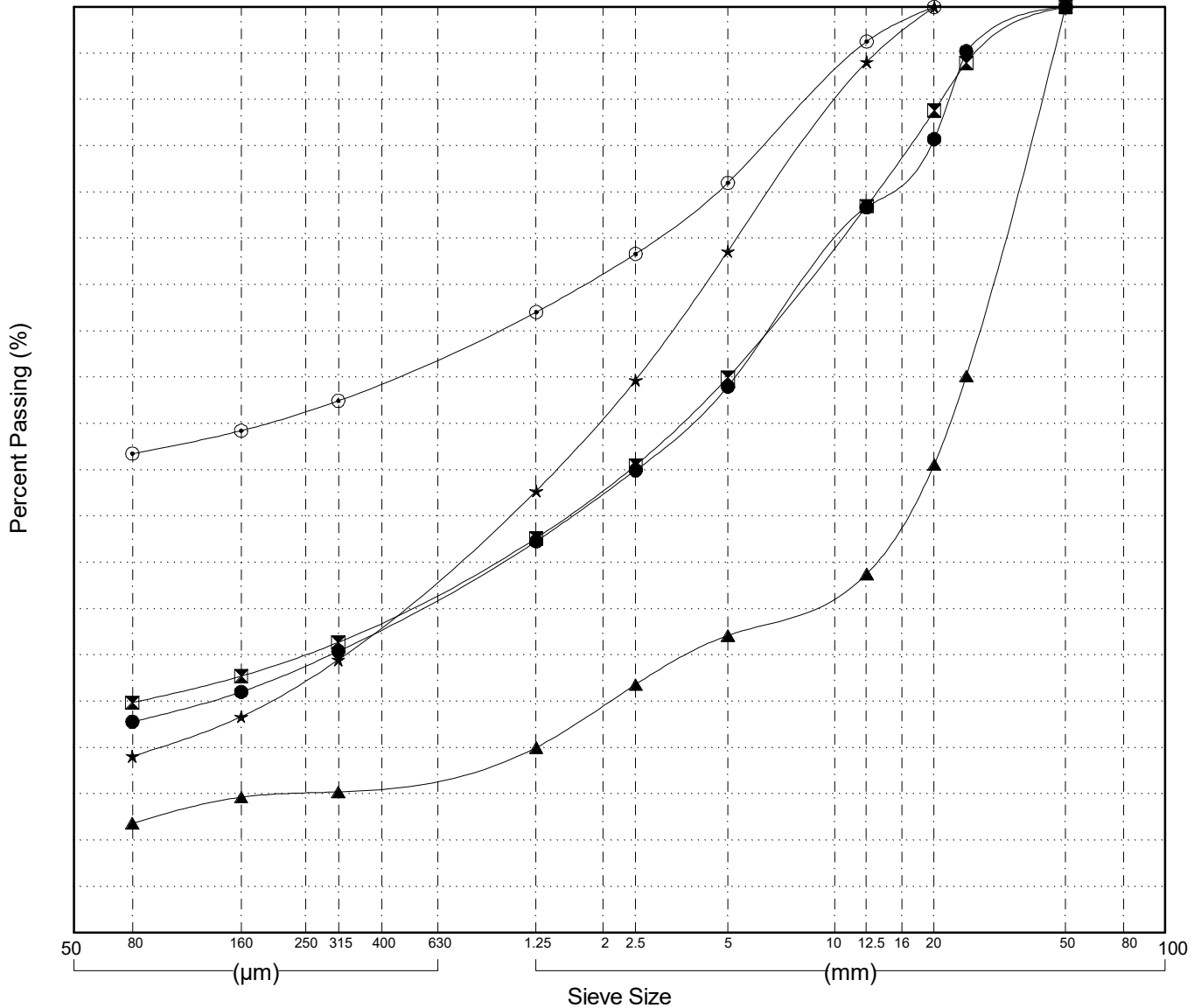
Master Revised July 2013

| Field# | Lab# | Depth      | Classification                                 | %H2O | LL | PL | PI | Cc   | Cu    |
|--------|------|------------|--|------|----|----|----|------|-------|
| ● 019  | 354  | 0.2 to 0.6 | SILTY GRAVEL with SAND(GM)                     | 1.2  | NP | NP | NP |      |       |
| ☒ 020  | 355  | 1.1 to 2.1 | SILTY GRAVEL with SAND(GM)                     | 5.9  | NP | NP | NP |      |       |
| ▲ 021  | 356  | 2.1 to 2.4 | POORLY GRADED GRAVEL with SILT and SAND(GP-GM) | 5.2  | NP | NP | NP | 11.9 | 548.0 |
| ★ 022  | 357  | 3.6 to 4.1 | SILTY SAND with GRAVEL(SM)                     | 3.5  | NP | NP | NP |      |       |
| ⊙ 023  | 358  | 5.1 to 5.5 | SANDY SILT with GRAVEL(ML)                     | 7.5  | NP | NP | NP |      |       |

| Field# | Lab# | 100.0    | 80.0  | 50.0  | 25.0  | 20.0  | 12.5 | 10.0 | 5.0  | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080 | %Breakdown |      |      |      |
|--------|------|----------|-------|-------|-------|-------|------|------|------|------|------|-------|-------|-------|-------|------------|------|------|------|
|        |      | %PASSING |       |       |       |       |      |      |      |      |      |       |       |       |       | Gravel     | Sand | Silt | Clay |
| ● 019  | 354  | 100.0    | 100.0 | 100.0 | 95.2  | 85.7  | 78.4 | 73.9 | 59.0 | 50.0 | 42.3 | 36.4  | 30.4  | 26.0  | 22.8  | 41.0       | 36.2 | 22.8 |      |
| ☒ 020  | 355  | 100.0    | 100.0 | 100.0 | 93.9  | 88.8  | 78.5 | 74.2 | 60.0 | 50.5 | 42.6 | 37.0  | 31.4  | 27.7  | 24.9  | 40.0       | 35.1 | 24.9 |      |
| ▲ 021  | 356  | 100.0    | 100.0 | 100.0 | 60.1  | 50.6  | 38.8 | 37.2 | 32.1 | 26.8 | 20.0 | 17.6  | 15.2  | 14.7  | 11.8  | 67.9       | 20.3 | 11.8 |      |
| ★ 022  | 357  | 100.0    | 100.0 | 100.0 | 100.0 | 100.0 | 94.1 | 89.3 | 73.6 | 59.7 | 47.7 | 38.7  | 29.5  | 23.3  | 19.1  | 26.4       | 54.5 | 19.1 |      |
| ⊙ 023  | 358  | 100.0    | 100.0 | 100.0 | 100.0 | 100.0 | 96.3 | 92.7 | 81.0 | 73.3 | 67.0 | 62.3  | 57.5  | 54.2  | 51.8  | 19.0       | 29.2 | 51.8 |      |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |



|                     |                                     |                      |
|---------------------|-------------------------------------|----------------------|
| GRAIN SIZE ANALYSIS | Jeff Bridge South                   | SOURCE/TP#: 902-5720 |
| Gateway Drilling    | km 412                              | PROJECT NO:          |
| 4 Solid Stem        | Coordinates:Z09V N6987312m E429134m | ELEVATION: 1016m     |

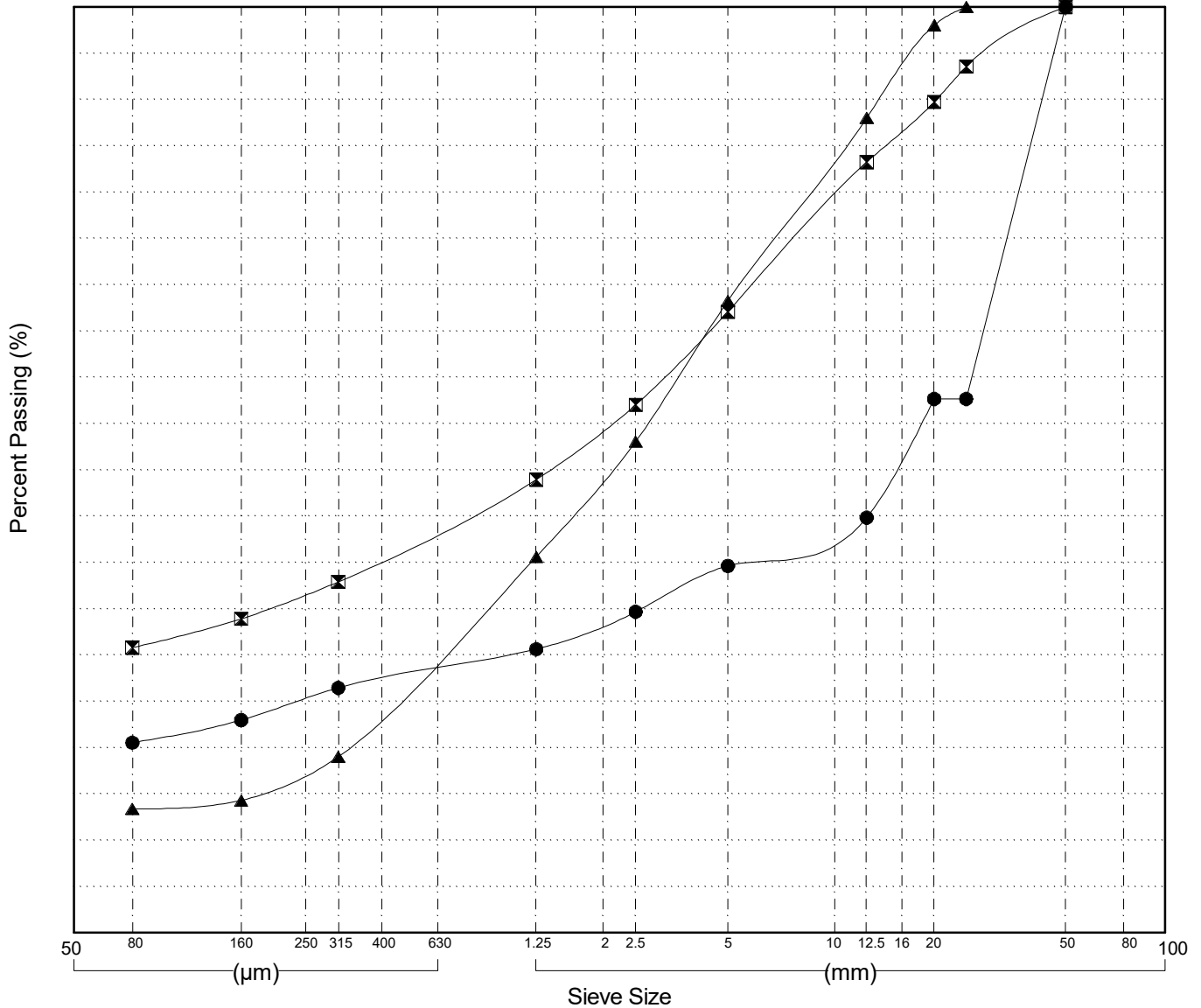
Master Revised July 2013

| Field# | Lab# | Depth       | Classification             | %H2O | LL | PL | PI | Cc | Cu |
|--------|------|-------------|----------------------------|------|----|----|----|----|----|
| ● 024  | 359  | 6.6 to 7.1  | SILTY GRAVEL with SAND(GM) | 2.2  | NP | NP | NP |    |    |
| ☒ 025  | 360  | 8.1 to 8.5  | SILTY SAND with GRAVEL(SM) | 2.5  | NP | NP | NP |    |    |
| ▲ 026  | 361  | 9.6 to 10.1 | SILTY SAND with GRAVEL(SM) | 5.3  | NP | NP | NP |    |    |

| Field# | Lab# | % PASSING | Sieve Size (mm) |       |       |      |      |      |      |      |      |      |       |       |       | % Breakdown |        |      |      |      |
|--------|------|-----------|-----------------|-------|-------|------|------|------|------|------|------|------|-------|-------|-------|-------------|--------|------|------|------|
|        |      |           | 100.0           | 80.0  | 50.0  | 25.0 | 20.0 | 12.5 | 10.0 | 5.0  | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080       | Gravel | Sand | Silt | Clay |
| ● 024  | 359  | 100.0     | 100.0           | 100.0 | 100.0 | 57.7 | 57.7 | 44.8 | 43.6 | 39.6 | 34.7 | 30.6 | 28.6  | 26.5  | 23.0  | 20.5        | 60.4   | 19.1 | 20.5 |      |
| ☒ 025  | 360  | 100.0     | 100.0           | 100.0 | 93.6  | 89.7 | 83.2 | 79.5 | 67.1 | 57.0 | 48.9 | 43.5 | 37.9  | 33.9  | 30.8  | 32.9        | 36.3   | 30.8 |      |      |
| ▲ 026  | 361  | 100.0     | 100.0           | 100.0 | 100.0 | 98.0 | 88.0 | 83.4 | 68.2 | 53.1 | 40.6 | 29.9 | 19.0  | 14.3  | 13.4  | 31.8        | 54.9   | 13.4 |      |      |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |



Highways and Public Works  
Transportation Engineering Branch

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REVIEWED BY: Dave Lorenzi

Pit #  
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Page 2 of 2

|                     |                                     |                        |
|---------------------|-------------------------------------|------------------------|
| GRAIN SIZE ANALYSIS | MacMillian Bridge North             | SOURCE/TP#: 902-5721.1 |
| Gateway Drilling    | km 402                              | PROJECT NO:            |
| 4 Solid Stem        | Coordinates:Z09V N6981127m E425386m | ELEVATION: 958m        |

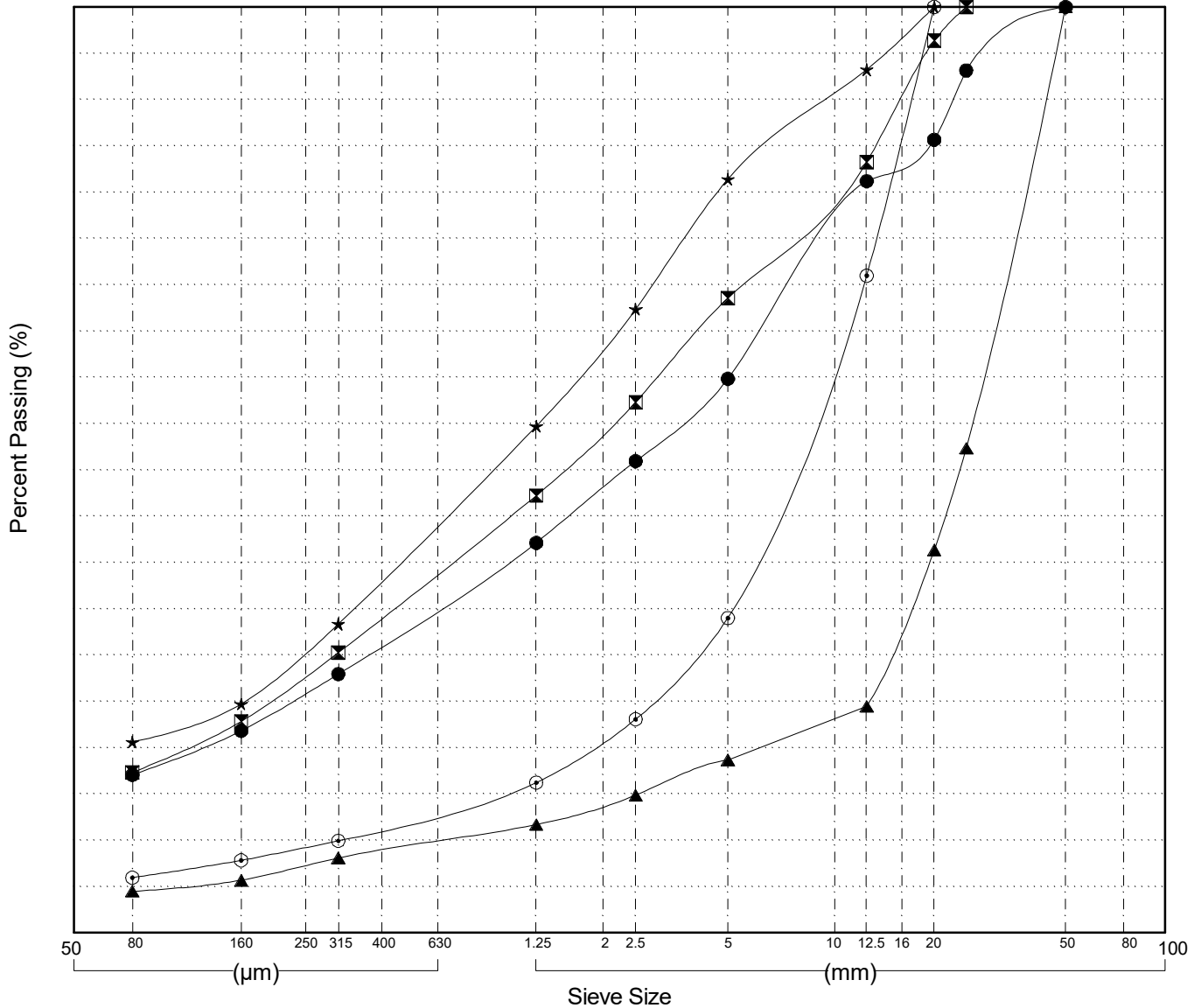
Master Revised July 2013

| Field# | Lab# | Depth      | Classification                                 | %H2O | LL | PL | PI | Cc   | Cu   |
|--------|------|------------|--|------|----|----|----|------|------|
| ● 027  | 362  | 0.2 to 0.6 | SILTY SAND with GRAVEL(SM)                     | 3.1  | NP | NP | NP |      |      |
| ☒ 028  | 363  | 1.5 to 2.1 | SILTY SAND with GRAVEL(SM)                     | 3.7  | NP | NP | NP |      |      |
| ▲ 029  | 364  | 2.1 to 2.6 | POORLY GRADED GRAVEL(GP)                       | 2.6  | NP | NP | NP | 11.6 | 42.7 |
| ★ 030  | 365  | 3.6 to 4.1 | SILTY SAND with GRAVEL(SM)                     | 5.4  | NP | NP | NP |      |      |
| ⊙ 031  | 366  | 5.1 to 5.5 | POORLY GRADED GRAVEL with SILT and SAND(GP-GM) | 3.1  | NP | NP | NP | 4.7  | 29.4 |

| Field# | Lab# | %PASSING |       |       |       |       |      |      |      |      |      |       |       |       |       | %Breakdown |      |      |      |
|--------|------|----------|-------|-------|-------|-------|------|------|------|------|------|-------|-------|-------|-------|------------|------|------|------|
|        |      | 100.0    | 80.0  | 50.0  | 25.0  | 20.0  | 12.5 | 10.0 | 5.0  | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080 | Gravel     | Sand | Silt | Clay |
| ● 027  | 362  | 100.0    | 100.0 | 100.0 | 93.1  | 85.7  | 81.2 | 76.3 | 59.8 | 50.9 | 42.1 | 35.1  | 28.0  | 21.8  | 17.1  | 40.2       | 42.8 | 17.1 |      |
| ☒ 028  | 363  | 100.0    | 100.0 | 100.0 | 100.0 | 96.4  | 83.2 | 79.9 | 68.6 | 57.3 | 47.2 | 38.8  | 30.3  | 22.8  | 17.3  | 31.4       | 51.2 | 17.3 |      |
| ▲ 029  | 364  | 100.0    | 100.0 | 100.0 | 52.3  | 41.4  | 24.5 | 23.1 | 18.7 | 14.9 | 11.7 | 9.9   | 8.1   | 5.7   | 4.5   | 81.3       | 14.2 | 4.5  |      |
| ★ 030  | 365  | 100.0    | 100.0 | 100.0 | 100.0 | 100.0 | 93.2 | 90.5 | 81.4 | 67.4 | 54.7 | 44.1  | 33.4  | 24.7  | 20.6  | 18.6       | 60.8 | 20.6 |      |
| ⊙ 031  | 366  | 100.0    | 100.0 | 100.0 | 100.0 | 100.0 | 71.0 | 62.4 | 34.0 | 23.1 | 16.2 | 13.1  | 9.9   | 7.8   | 6.0   | 66.0       | 28.0 | 6.0  |      |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |

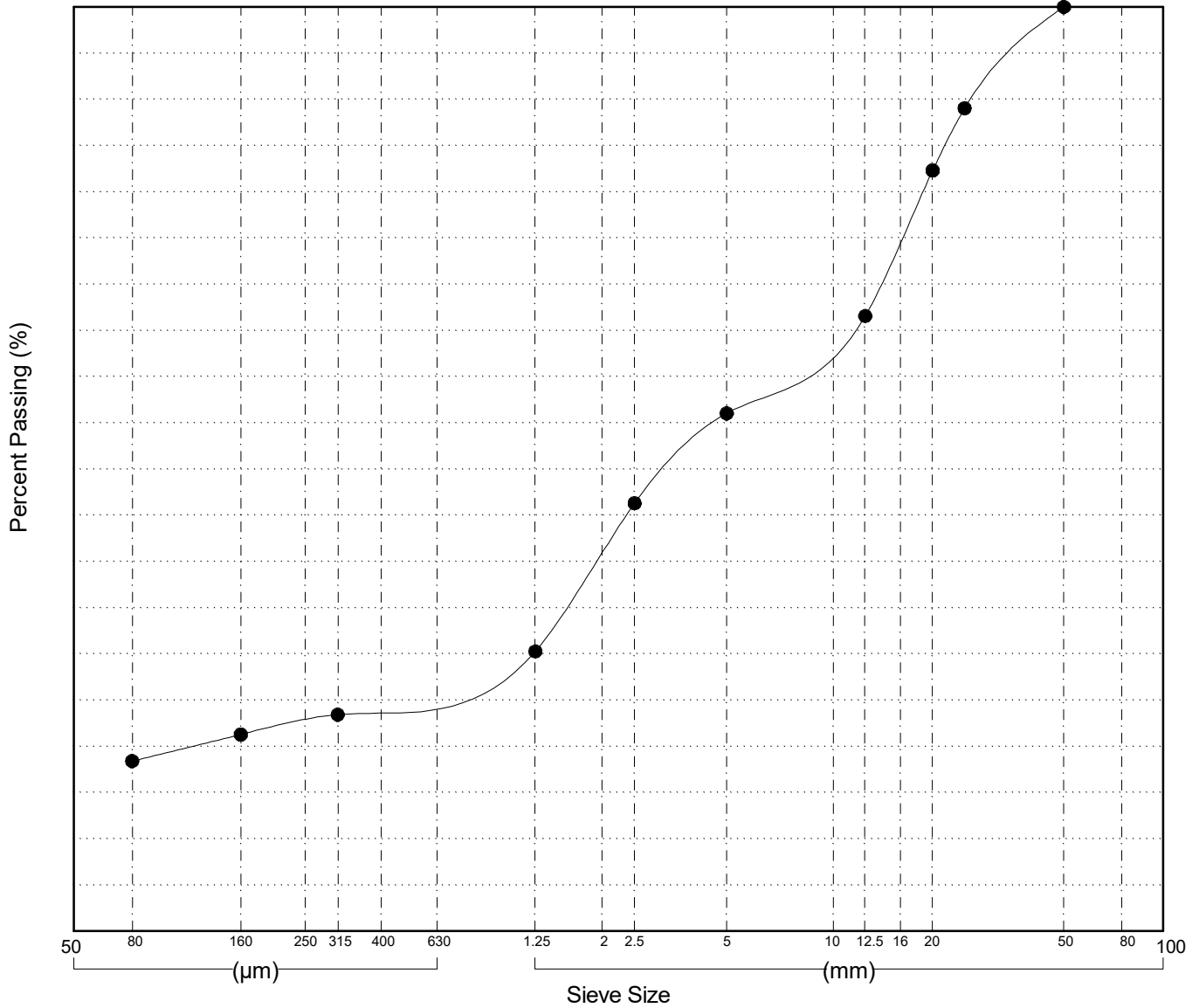


|                     |                                      |                        |
|---------------------|--------------------------------------|------------------------|
| GRAIN SIZE ANALYSIS | MacMillian Bridge North              | SOURCE/TP#: 902-5721.2 |
| Gateway Drilling    | km 402                               | PROJECT NO:            |
| 4 Solid Stem        | Coordinates: Z09V N6981119m E425389m | ELEVATION: 958m        |

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| Field# | Lab# | Depth      | Classification             | %H <sub>2</sub> O | LL   | PL   | PI   | C <sub>c</sub> | C <sub>u</sub> |      |      |       |       |       |       |            |      |      |      |
|--------|------|------------|----------------------------|-------------------|------|------|------|----------------|----------------|------|------|-------|-------|-------|-------|------------|------|------|------|
| ● 032  | 367  | 0.2 to 3.6 | SILTY GRAVEL with SAND(GM) | 0.5               | NP   | NP   | NP   |                |                |      |      |       |       |       |       |            |      |      |      |
| Field# | Lab# | 100.0      | 80.0                       | 50.0              | 25.0 | 20.0 | 12.5 | 10.0           | 5.0            | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080 | %Breakdown |      |      |      |
| ● 032  | 367  | 100.0      | 100.0                      | 100.0             | 89.0 | 82.3 | 66.6 | 64.1           | 56.0           | 46.3 | 30.3 | 26.9  | 23.4  | 21.3  | 18.4  | Gravel     | Sand | Silt | Clay |
|        |      |            |                            |                   |      |      |      |                |                |      |      |       |       |       |       | 44.0       | 37.6 | 18.4 |      |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |
|      |      |        |        |        |        |



Highways and Public Works  
Transportation Engineering Branch

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REVIEWED BY: Dave Lorenzi

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|                     |                                     |                        |
|---------------------|-------------------------------------|------------------------|
| GRAIN SIZE ANALYSIS | MacMillian Bridge North             | SOURCE/TP#: 902-5721.3 |
| Gateway Drilling    | km 402                              | PROJECT NO:            |
| 4 Solid Stem        | Coordinates:Z09V N6981128m E425397m | ELEVATION: 958m        |

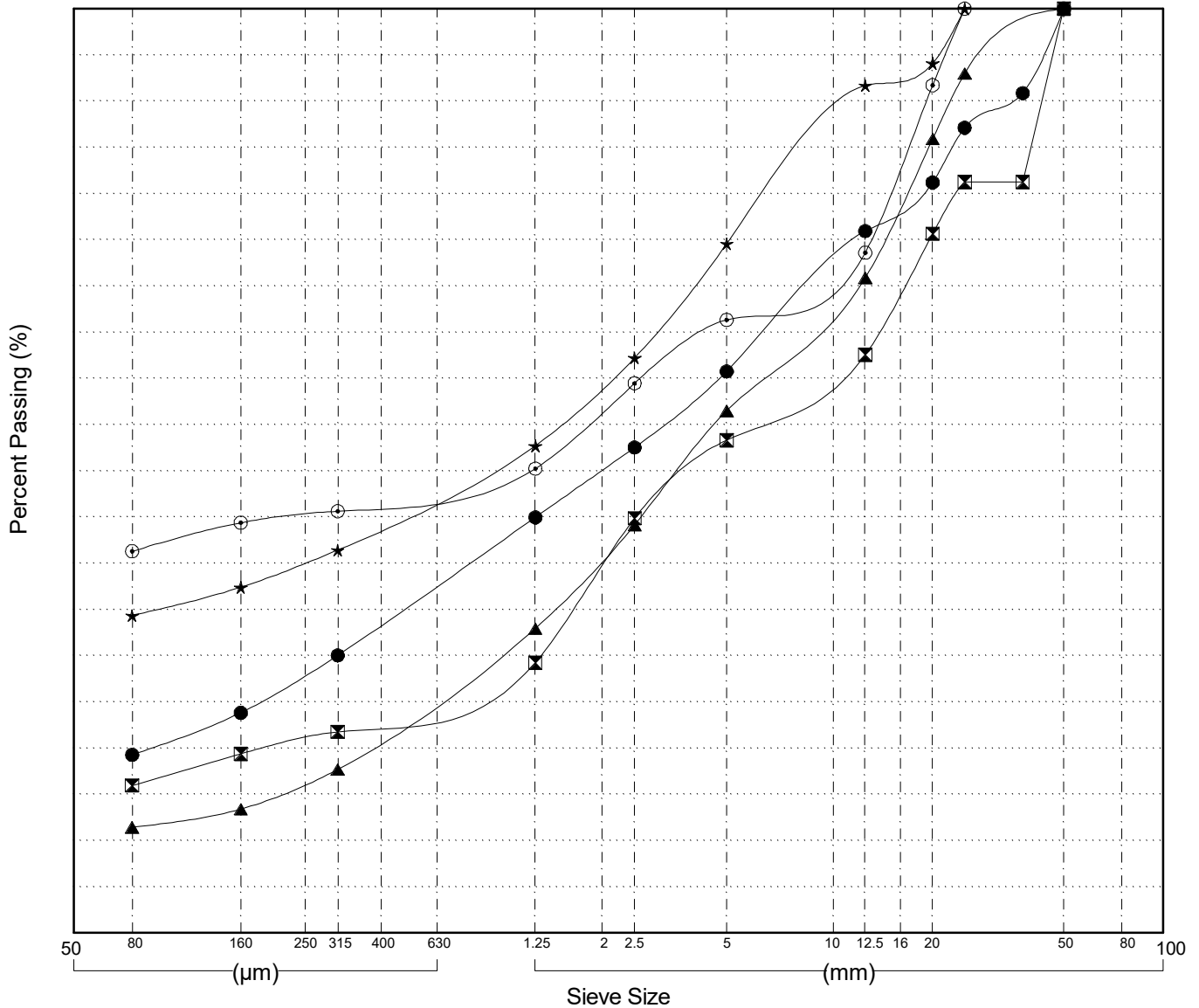
Master Revised July 2013

| Field# | Lab# | Depth      | Classification                                 | %H2O | LL | PL | PI | Cc  | Cu    |
|--------|------|------------|--|------|----|----|----|-----|-------|
| ● 033  | 368  | 1.5 to 2.1 | SILTY SAND with GRAVEL(SM)                     | 3.9  | NP | NP | NP |     |       |
| ☒ 034  | 369  | 2.1 to 2.6 | SILTY GRAVEL with SAND(GM)                     | 1.4  | NP | NP | NP |     |       |
| ▲ 035  | 370  | 3.6 to 4.1 | POORLY GRADED SAND with SILT and GRAVEL(SP-SM) | 3.7  | NP | NP | NP | 3.5 | 139.8 |
| ★ 036  | 371  | 5.1 to 5.5 | SILTY SAND with GRAVEL(SM)                     | 3.2  | NP | NP | NP |     |       |
| ⊙ 037  | 372  | 8.1 to 8.6 | SILTY GRAVEL with SAND(GM)                     | 8.0  | NP | NP | NP |     |       |

| Field# | Lab# | 100.0    | 80.0  | 50.0  | 25.0  | 20.0 | 12.5 | 10.0 | 5.0  | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080 | %Breakdown |      |      |      |
|--------|------|----------|-------|-------|-------|------|------|------|------|------|------|-------|-------|-------|-------|------------|------|------|------|
|        |      | %PASSING |       |       |       |      |      |      |      |      |      |       |       |       |       | Gravel     | Sand | Silt | Clay |
| ● 033  | 368  | 100.0    | 100.0 | 100.0 | 87.1  | 81.2 | 75.9 | 72.4 | 60.8 | 52.5 | 45.0 | 37.5  | 30.0  | 23.8  | 19.3  | 39.2       | 41.5 | 19.3 |      |
| ☒ 034  | 369  | 100.0    | 100.0 | 100.0 | 81.3  | 75.6 | 62.6 | 60.4 | 53.3 | 44.9 | 29.2 | 25.5  | 21.8  | 19.4  | 16.0  | 46.7       | 37.4 | 16.0 |      |
| ▲ 035  | 370  | 100.0    | 100.0 | 100.0 | 93.0  | 85.9 | 70.9 | 67.5 | 56.5 | 44.2 | 32.9 | 25.4  | 17.7  | 13.4  | 11.4  | 43.5       | 45.0 | 11.4 |      |
| ★ 036  | 371  | 100.0    | 100.0 | 100.0 | 100.0 | 94.1 | 91.7 | 87.7 | 74.6 | 62.2 | 52.7 | 47.1  | 41.4  | 37.4  | 34.4  | 25.4       | 40.2 | 34.4 |      |
| ⊙ 037  | 372  | 100.0    | 100.0 | 100.0 | 100.0 | 91.7 | 73.6 | 71.9 | 66.3 | 59.5 | 50.2 | 47.9  | 45.6  | 44.4  | 41.3  | 33.7       | 25.0 | 41.3 |      |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |



Highways and Public Works  
Transportation Engineering Branch

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REVIEWED BY: Dave Lorenzi

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|                     |                                      |                        |
|---------------------|--------------------------------------|------------------------|
| GRAIN SIZE ANALYSIS | MacMillian Bridge North              | SOURCE/TP#: 902-5721.3 |
| Gateway Drilling    | km 402                               | PROJECT NO:            |
| 4 Solid Stem        | Coordinates: Z09V N6981128m E425397m | ELEVATION: 958m        |

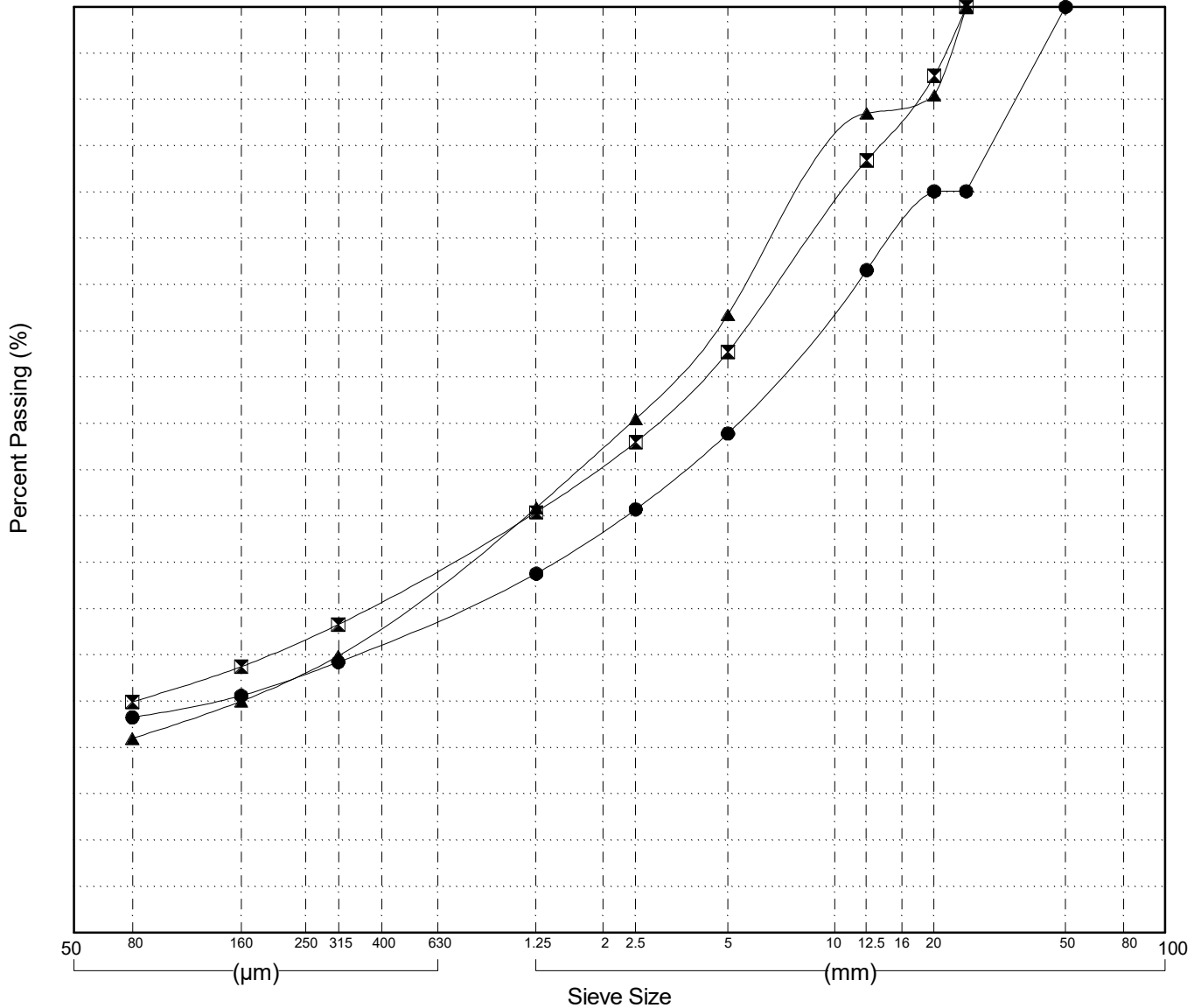
Master Revised July 2013

| Field# | Lab# | Depth        | Classification             | %H2O | LL | PL | PI | Cc | Cu |
|--------|------|--------------|----------------------------|------|----|----|----|----|----|
| ● 038  | 373  | 9.6 to 10.0  | SILTY GRAVEL with SAND(GM) | 1.8  | NP | NP | NP |    |    |
| ☒ 040  | 375  | 12.6 to 13.1 | SILTY SAND with GRAVEL(SM) | 5.3  | NP | NP | NP |    |    |
| ▲ 021  | 376  | 14.0 to 14.5 | SILTY SAND with GRAVEL(SM) | 6.5  | NP | NP | NP |    |    |

| Field# | Lab# | % PASSING | Sieve Size (mm) |       |       |      |      |      |      |      |      |      |       |       |       | % Breakdown |        |      |      |
|--------|------|-----------|-----------------|-------|-------|------|------|------|------|------|------|------|-------|-------|-------|-------------|--------|------|------|
|        |      |           | 100.0           | 80.0  | 50.0  | 25.0 | 20.0 | 12.5 | 10.0 | 5.0  | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080       | Gravel | Sand | Silt |
| ● 038  | 373  | 100.0     | 100.0           | 100.0 | 100.0 | 80.1 | 80.1 | 71.6 | 67.5 | 53.9 | 45.7 | 38.8 | 34.0  | 29.2  | 25.6  | 23.3        | 46.1   | 30.7 | 23.3 |
| ☒ 040  | 375  | 100.0     | 100.0           | 100.0 | 100.0 | 92.6 | 83.4 | 78.7 | 62.7 | 53.0 | 45.4 | 39.4 | 33.3  | 28.8  | 25.0  | 37.3        | 37.8   | 25.0 |      |
| ▲ 021  | 376  | 100.0     | 100.0           | 100.0 | 100.0 | 90.4 | 88.5 | 83.5 | 66.7 | 55.5 | 45.9 | 38.0 | 29.9  | 25.0  | 21.0  | 33.3        | 45.7   | 21.0 |      |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |



Highways and Public Works  
Transportation Engineering Branch

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|                     |                                     |                      |
|---------------------|-------------------------------------|----------------------|
| GRAIN SIZE ANALYSIS | MacMillian Bridge South             | SOURCE/TP#: 902-5722 |
| Gateway Drilling    | km 402                              | PROJECT NO:          |
| 4 Solid Stem        | Coordinates:Z09V N6981103m E425344m | ELEVATION: 957m      |

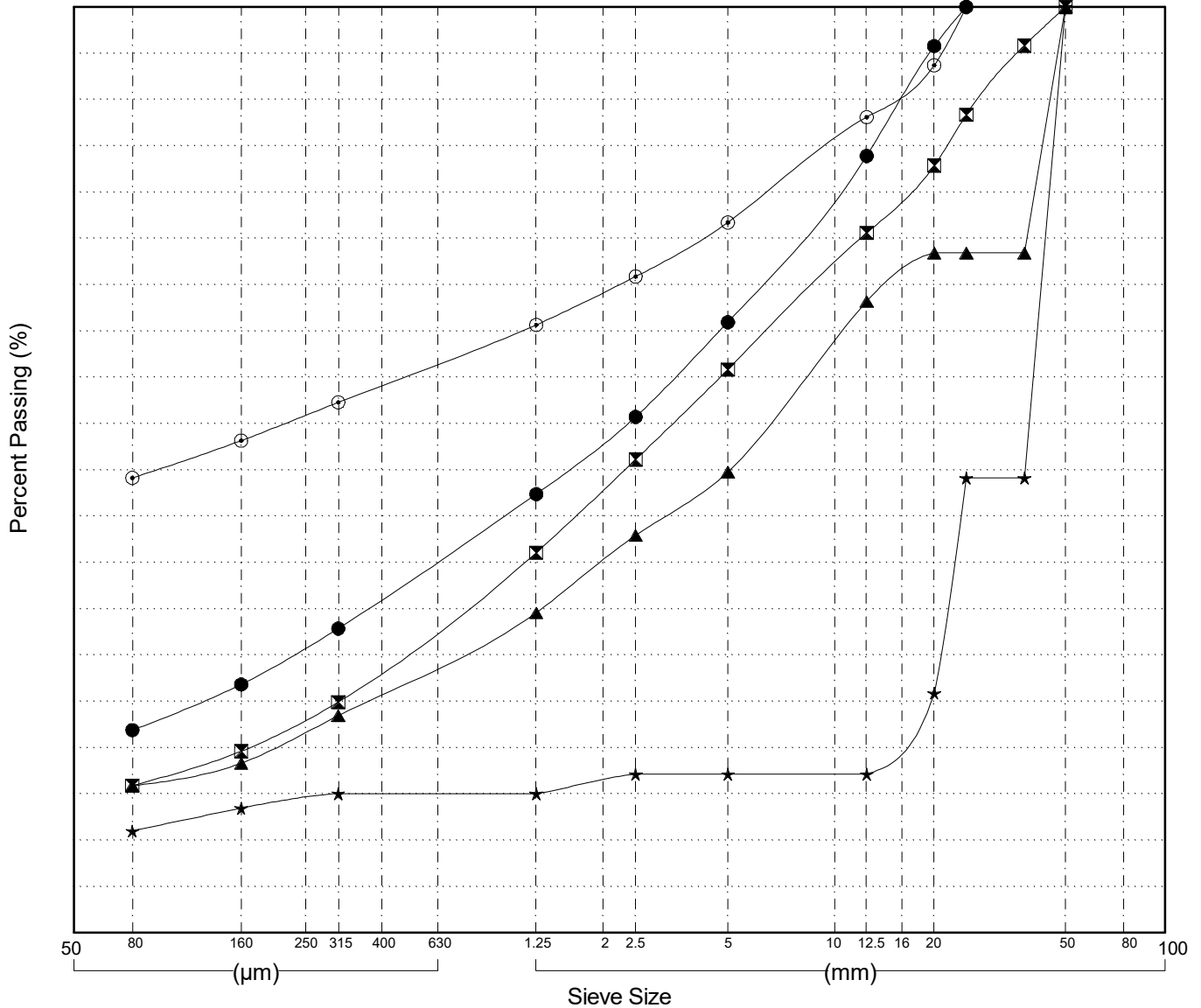
Master Revised July 2013

| Field# | Lab# | Depth      | Classification                        | %H <sub>2</sub> O | LL | PL | PI | C <sub>c</sub> | C <sub>u</sub> |
|--------|------|------------|---------------------------------------|-------------------|----|----|----|----------------|----------------|
| ● 042  | 377  | 0.2 to 0.6 | SILTY SAND with GRAVEL(SM)            | 3.4               | NP | NP | NP |                |                |
| ☒ 043  | 378  | 1.5 to 2.1 | SILTY SAND with GRAVEL(SM)            | 3.9               | NP | NP | NP |                |                |
| ▲ 044  | 379  | 2.1 to 2.6 | SILTY GRAVEL with SAND(GM)            | 1.7               | NP | NP | NP |                |                |
| ★ 045  | 380  | 3.6 to 4.1 | POORLY GRADED GRAVEL with SILT(GP-GM) | 3.0               | NP | NP | NP | 198.1          | 727.8          |
| ⊙ 046  | 381  | 5.4 to 5.9 | SILTY SAND with GRAVEL(SM)            | 9.4               | NP | NP | NP |                |                |

| Field# | Lab# | 100.0    | 80.0  | 50.0  | 25.0  | 20.0 | 12.5 | 10.0 | 5.0  | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080 | %Breakdown |      |      |      |
|--------|------|----------|-------|-------|-------|------|------|------|------|------|------|-------|-------|-------|-------|------------|------|------|------|
|        |      | %PASSING |       |       |       |      |      |      |      |      |      |       |       |       |       | Gravel     | Sand | Silt | Clay |
| ● 042  | 377  | 100.0    | 100.0 | 100.0 | 100.0 | 95.8 | 83.9 | 79.8 | 66.0 | 55.7 | 47.4 | 40.2  | 32.9  | 26.8  | 21.9  | 34.0       | 44.1 | 21.9 |      |
| ☒ 043  | 378  | 100.0    | 100.0 | 100.0 | 88.4  | 82.9 | 75.6 | 72.2 | 60.8 | 51.1 | 41.1 | 33.0  | 24.9  | 19.6  | 15.9  | 39.2       | 44.9 | 15.9 |      |
| ▲ 044  | 379  | 100.0    | 100.0 | 100.0 | 73.4  | 73.4 | 68.2 | 63.9 | 49.8 | 42.9 | 34.6 | 29.0  | 23.5  | 18.3  | 15.9  | 50.2       | 33.9 | 15.9 |      |
| ★ 045  | 380  | 100.0    | 100.0 | 100.0 | 49.1  | 25.9 | 17.1 | 17.1 | 17.1 | 17.1 | 15.0 | 15.0  | 15.0  | 13.5  | 11.0  | 82.9       | 6.1  | 11.0 |      |
| ⊙ 046  | 381  | 100.0    | 100.0 | 100.0 | 100.0 | 93.7 | 88.1 | 85.5 | 76.7 | 70.9 | 65.7 | 61.5  | 57.3  | 53.2  | 49.1  | 23.3       | 27.6 | 49.1 |      |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |



Highways and Public Works  
Transportation Engineering Branch

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|                     |                                     |                      |
|---------------------|-------------------------------------|----------------------|
| GRAIN SIZE ANALYSIS | MacMillian Bridge South             | SOURCE/TP#: 902-5722 |
| Gateway Drilling    | km 402                              | PROJECT NO:          |
| 4 Solid Stem        | Coordinates:Z09V N6981103m E425344m | ELEVATION: 957m      |

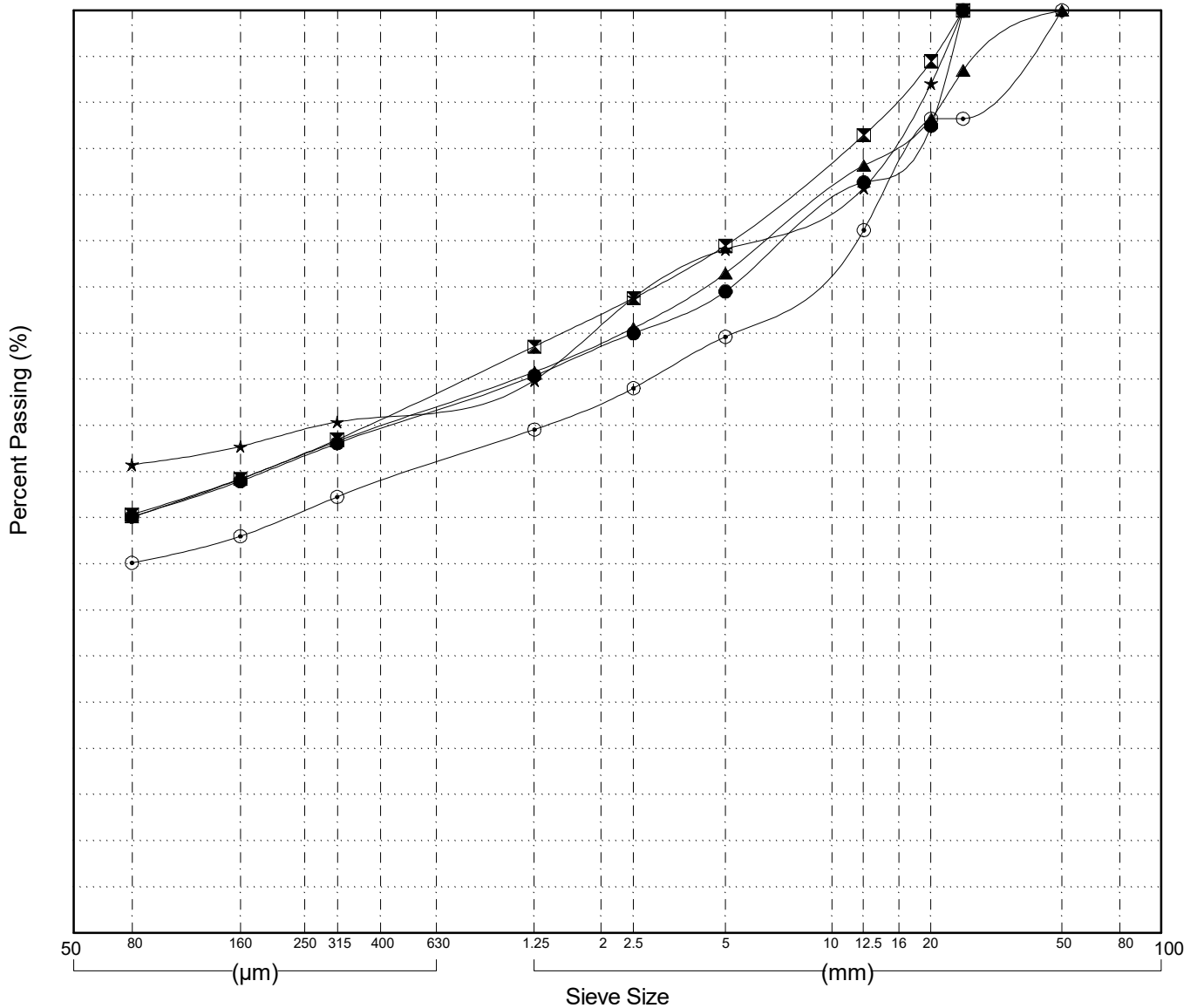
Master Revised July 2013

| Field# | Lab# | Depth        | Classification              | %H2O | LL | PL | PI | Cc | Cu |
|--------|------|--------------|-----------------------------|------|----|----|----|----|----|
| ● 048  | 383  | 8.4 to 8.9   | SILTY GRAVEL with SAND(GM)  | 1.6  | NP | NP | NP |    |    |
| ☒ 049  | 384  | 9.9 to 10.5  | SILTY SAND with GRAVEL(SM)  | 5.3  | NP | NP | NP |    |    |
| ▲ 050  | 385  | 11.4 to 11.9 | SILTY GRAVEL with SAND(GM)  | 4.2  | NP | NP | NP |    |    |
| ★ 051  | 386  | 12.9 to 13.4 | GRAVELLY SILT with SAND(ML) | 6.5  | NP | NP | NP |    |    |
| ⊙ 055  | 387  | 13.9 to 14.4 | SILTY GRAVEL with SAND(GM)  | 4.5  | NP | NP | NP |    |    |

| Field# | Lab# | % PASSING |       |       |       |      |      |      |      |      |      |       |       |       | % Breakdown |        |      |      |      |
|--------|------|-----------|-------|-------|-------|------|------|------|------|------|------|-------|-------|-------|-------------|--------|------|------|------|
|        |      | 100.0     | 80.0  | 50.0  | 25.0  | 20.0 | 12.5 | 10.0 | 5.0  | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080       | Gravel | Sand | Silt | Clay |
| ● 048  | 383  | 100.0     | 100.0 | 100.0 | 100.0 | 87.5 | 81.4 | 78.6 | 69.5 | 65.0 | 60.4 | 56.8  | 53.1  | 49.0  | 45.1        | 30.5   | 24.4 | 45.1 |      |
| ☒ 049  | 384  | 100.0     | 100.0 | 100.0 | 100.0 | 94.5 | 86.5 | 83.7 | 74.5 | 68.8 | 63.6 | 58.6  | 53.5  | 49.2  | 45.3        | 25.5   | 29.1 | 45.3 |      |
| ▲ 050  | 385  | 100.0     | 100.0 | 100.0 | 93.5  | 88.3 | 83.2 | 80.5 | 71.5 | 65.6 | 60.8 | 57.1  | 53.3  | 49.2  | 45.1        | 28.5   | 26.4 | 45.1 |      |
| ★ 051  | 386  | 100.0     | 100.0 | 100.0 | 100.0 | 92.1 | 80.8 | 79.2 | 74.1 | 68.9 | 59.9 | 57.7  | 55.4  | 52.7  | 50.8        | 25.9   | 23.3 | 50.8 |      |
| ⊙ 055  | 387  | 100.0     | 100.0 | 100.0 | 88.3  | 88.3 | 76.2 | 73.5 | 64.6 | 59.1 | 54.6 | 50.9  | 47.3  | 43.0  | 40.1        | 35.4   | 24.5 | 40.1 |      |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |



|                     |                                      |                      |
|---------------------|--------------------------------------|----------------------|
| GRAIN SIZE ANALYSIS | MacMillian Bridge South              | SOURCE/TP#: 902-5722 |
| Gateway Drilling    | km 402                               | PROJECT NO:          |
| 4 Solid Stem        | Coordinates: Z09V N6981103m E425344m | ELEVATION: 957m      |

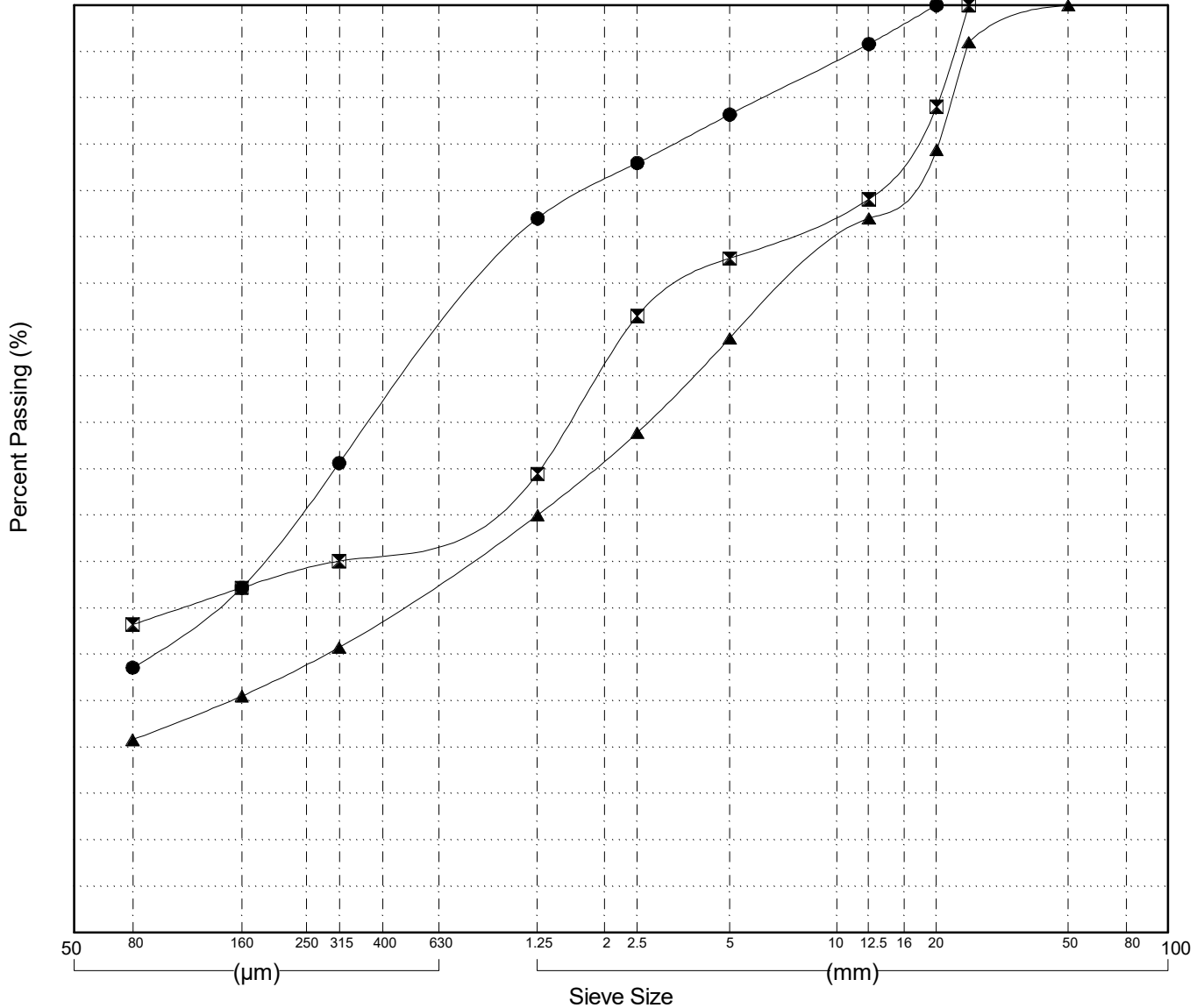
Master Revised July 2013

| Field# | Lab# | Depth        | Classification             | %H2O | LL | PL | PI | Cc | Cu |
|--------|------|--------------|----------------------------|------|----|----|----|----|----|
| ● 052  | 388  | 14.4 to 14.9 | SILTY SAND(SM)             | 5.4  | NP | NP | NP |    |    |
| ☒ 053  | 389  | 15.9 to 16.4 | SILTY SAND with GRAVEL(SM) | 5.5  | NP | NP | NP |    |    |
| ▲ 054  | 390  | 17.4 to 17.9 | SILTY SAND with GRAVEL(SM) | 3.0  | NP | NP | NP |    |    |

| Field# | Lab# | % PASSING | Sieve Size (mm) |       |       |       |      |      |      |      |      |      |       |       |       | % Breakdown |        |      |      |
|--------|------|-----------|-----------------|-------|-------|-------|------|------|------|------|------|------|-------|-------|-------|-------------|--------|------|------|
|        |      |           | 100.0           | 80.0  | 50.0  | 25.0  | 20.0 | 12.5 | 10.0 | 5.0  | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080       | Gravel | Sand | Silt |
| ● 052  | 388  | 100.0     | 100.0           | 100.0 | 100.0 | 100.0 | 95.8 | 94.1 | 88.2 | 83.0 | 77.0 | 63.9 | 50.6  | 37.2  | 28.6  | 11.8        | 59.6   | 28.6 |      |
| ☒ 053  | 389  | 100.0     | 100.0           | 100.0 | 100.0 | 89.0  | 79.1 | 77.6 | 72.7 | 66.5 | 49.5 | 44.8 | 40.1  | 37.2  | 33.2  | 27.3        | 39.5   | 33.2 |      |
| ▲ 054  | 390  | 100.0     | 100.0           | 100.0 | 96.0  | 84.4  | 77.0 | 74.0 | 64.1 | 53.9 | 45.0 | 37.9 | 30.8  | 25.5  | 20.8  | 35.9        | 43.3   | 20.8 |      |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |



Highways and Public Works  
Transportation Engineering Branch

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|                     |                                      |                      |
|---------------------|--------------------------------------|----------------------|
| GRAIN SIZE ANALYSIS | Sheldon Bridge North                 | SOURCE/TP#: 902-5723 |
| Gateway Drilling    | km 355                               | PROJECT NO:          |
| 4 Solid Stem        | Coordinates: Z09V N6956208m E396481m | ELEVATION: 879m      |

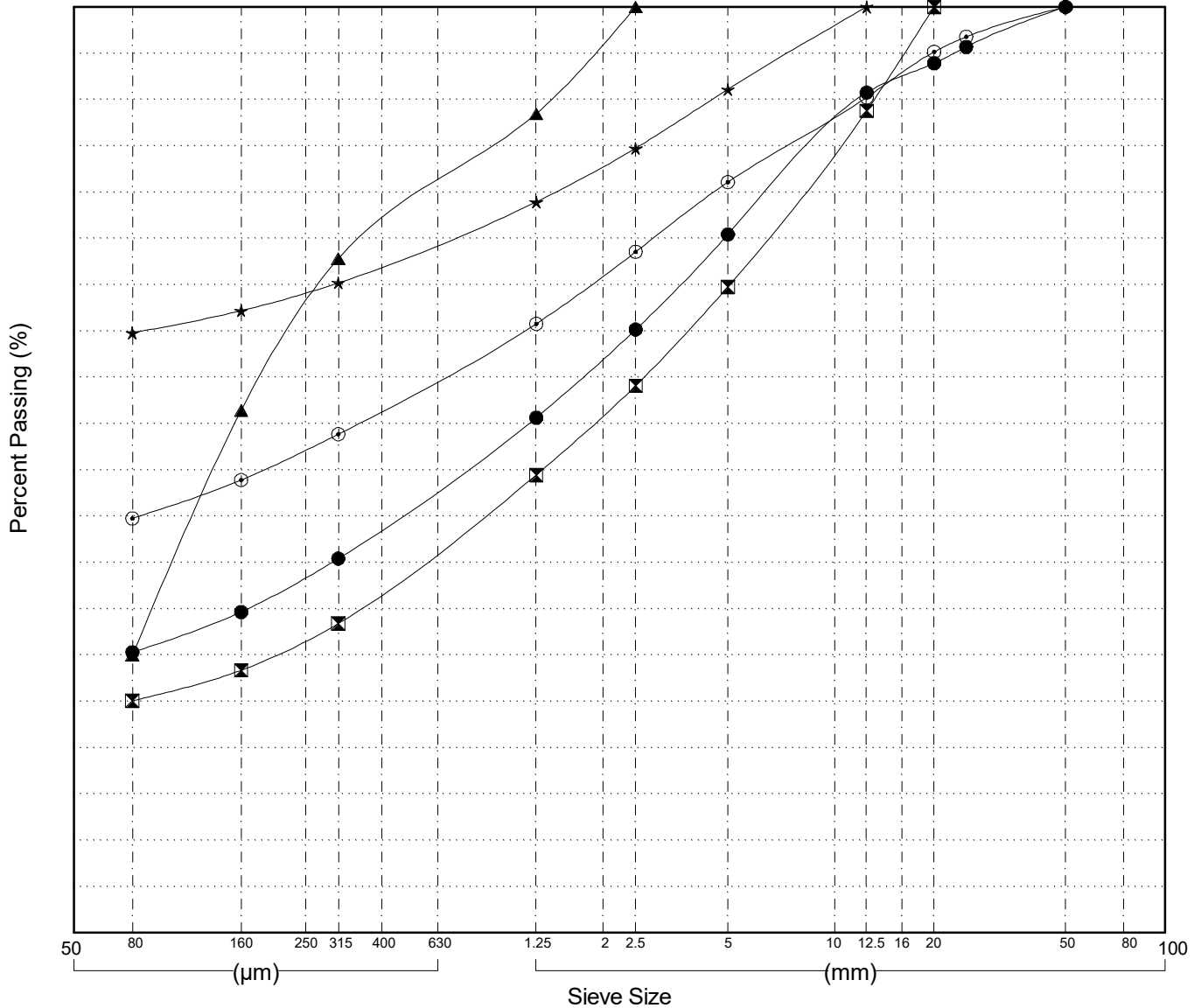
Master Revised July 2013

| Field# | Lab# | Depth      | Classification             | %H2O | LL | PL | PI | Cc | Cu |
|--------|------|------------|----------------------------|------|----|----|----|----|----|
| ● 056  | 391  | 0.2 to 0.7 | SILTY SAND with GRAVEL(SM) | 2.2  | NP | NP | NP |    |    |
| ☒ 057  | 392  | 0.9 to 1.4 | SILTY SAND with GRAVEL(SM) | 2.4  | NP | NP | NP |    |    |
| ▲ 058  | 393  | 2.4 to 2.9 | SILTY SAND(SM)             | 5.8  | NP | NP | NP |    |    |
| ★ 059  | 394  | 3.9 to 4.3 | SANDY SILT(ML)             | 13.6 | NP | NP | NP |    |    |
| ⊙ 060  | 395  | 5.2 to 5.5 | SILTY SAND with GRAVEL(SM) | 7.0  | NP | NP | NP |    |    |

| Field# | Lab# | % PASSING |       |       |       |       |       |       |       |       |      |       |       |       |       | % Breakdown |      |      |      |
|--------|------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------------|------|------|------|
|        |      | 100.0     | 80.0  | 50.0  | 25.0  | 20.0  | 12.5  | 10.0  | 5.0   | 2.5   | 1.25 | 0.630 | 0.315 | 0.160 | 0.080 | Gravel      | Sand | Silt | Clay |
| ● 056  | 391  | 100.0     | 100.0 | 100.0 | 95.7  | 93.9  | 90.8  | 87.2  | 75.4  | 65.2  | 55.6 | 48.1  | 40.4  | 34.7  | 30.3  | 24.6        | 45.1 | 30.3 |      |
| ☒ 057  | 392  | 100.0     | 100.0 | 100.0 | 100.0 | 100.0 | 88.8  | 84.4  | 69.8  | 59.1  | 49.5 | 41.5  | 33.4  | 28.4  | 25.0  | 30.2        | 44.7 | 25.0 |      |
| ▲ 058  | 393  | 100.0     | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 88.5 | 80.7  | 72.8  | 56.4  | 30.0  | 0.0         | 70.0 | 30.0 |      |
| ★ 059  | 394  | 100.0     | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 97.9  | 91.1  | 84.7  | 78.9 | 74.6  | 70.2  | 67.2  | 64.8  | 8.9         | 26.3 | 64.8 |      |
| ⊙ 060  | 395  | 100.0     | 100.0 | 100.0 | 96.8  | 95.1  | 90.2  | 88.1  | 81.1  | 73.5  | 65.8 | 59.8  | 53.9  | 48.9  | 44.8  | 18.9        | 36.3 | 44.8 |      |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |

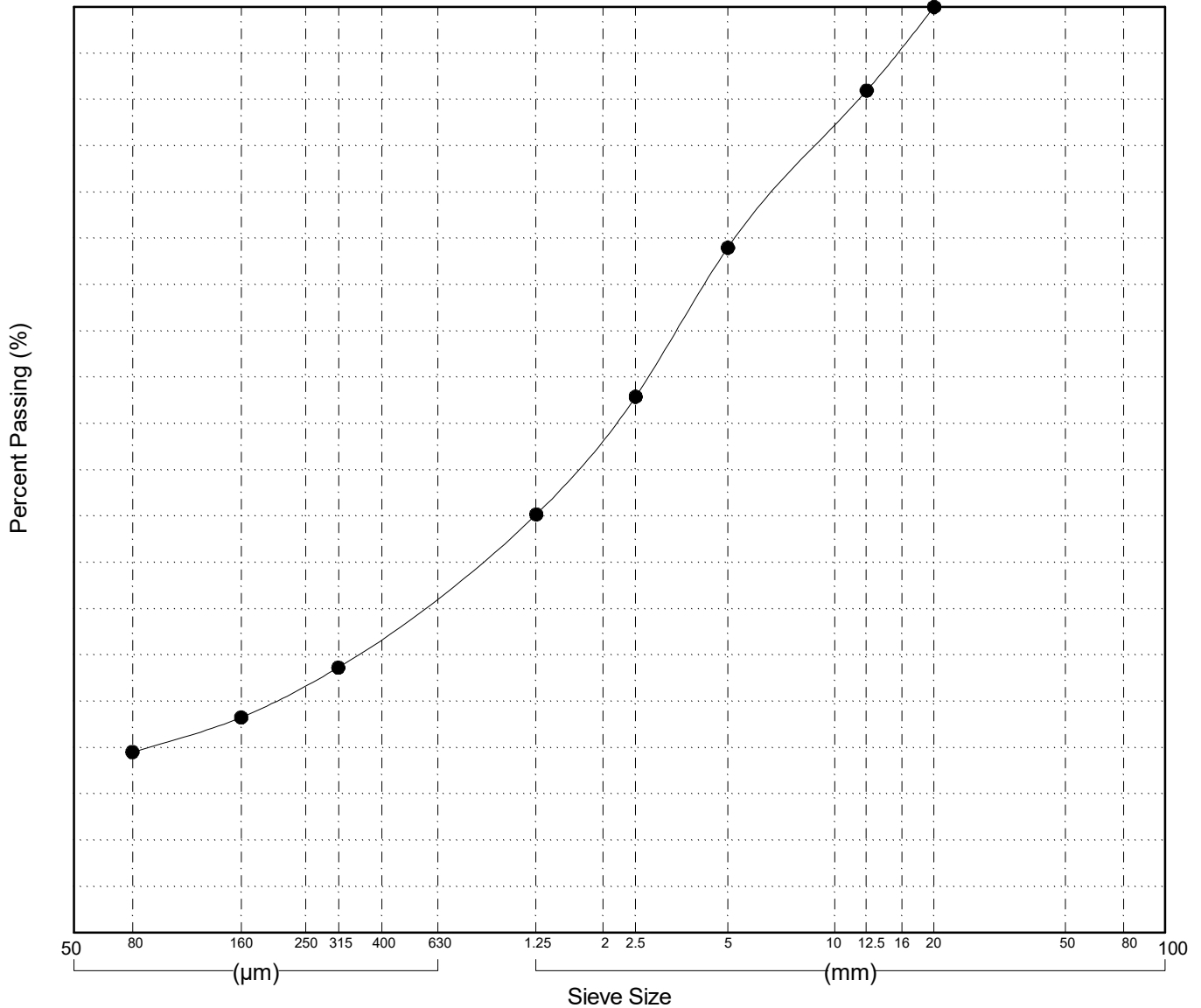


|                     |                                      |                      |
|---------------------|--------------------------------------|----------------------|
| GRAIN SIZE ANALYSIS | Sheldon Bridge North                 | SOURCE/TP#: 902-5723 |
| Gateway Drilling    | km 355                               | PROJECT NO:          |
| 4 Solid Stem        | Coordinates: Z09V N6956208m E396481m | ELEVATION: 879m      |

Master Revised July 2013

| Field# | Lab# | Depth      | Classification             | %H <sub>2</sub> O | LL    | PL    | PI   | C <sub>c</sub> | C <sub>u</sub> |      |      |       |       |       |       |            |      |      |      |
|--------|------|------------|----------------------------|-------------------|-------|-------|------|----------------|----------------|------|------|-------|-------|-------|-------|------------|------|------|------|
| ● 061  | 396  | 6.9 to 7.3 | SILTY SAND with GRAVEL(SM) | 3.9               | NP    | NP    | NP   |                |                |      |      |       |       |       |       |            |      |      |      |
| Field# | Lab# | 100.0      | 80.0                       | 50.0              | 25.0  | 20.0  | 12.5 | 10.0           | 5.0            | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080 | %Breakdown |      |      |      |
| ● 061  | 396  | 100.0      | 100.0                      | 100.0             | 100.0 | 100.0 | 91.0 | 87.0           | 74.0           | 57.9 | 45.2 | 37.0  | 28.7  | 23.3  | 19.5  | Gravel     | Sand | Silt | Clay |
|        |      | % PASSING  |                            |                   |       |       |      |                |                |      |      |       |       |       |       | 26.0       | 54.5 | 19.5 |      |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |
|      |      |        |        |        |        |



|                     |                                     |                        |
|---------------------|-------------------------------------|------------------------|
| GRAIN SIZE ANALYSIS | Sheldon Bridge South                | SOURCE/TP#: 902-5724.1 |
| Gateway Drilling    | km 355                              | PROJECT NO:            |
| 4 Solid Stem        | Coordinates:Z09V N6956199m E396471m | ELEVATION: 879m        |

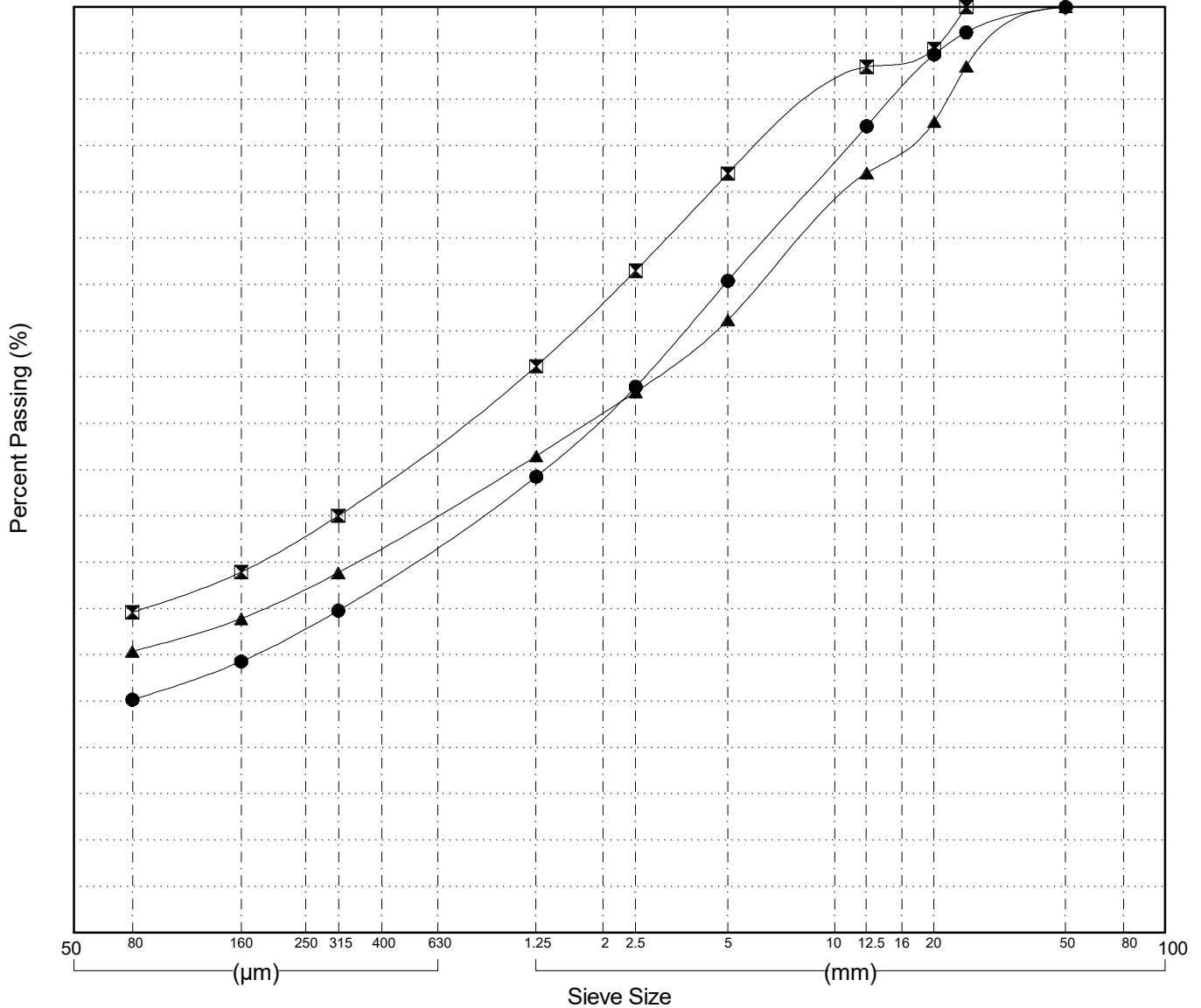
Master Revised July 2013

| Field# | Lab# | Depth      | Classification             | %H <sub>2</sub> O | LL | PL | PI | C <sub>c</sub> | C <sub>u</sub> |
|--------|------|------------|----------------------------|-------------------|----|----|----|----------------|----------------|
| ● 062  | 397  | 0.2 to 0.7 | SILTY SAND with GRAVEL(SM) | 3.9               | NP | NP | NP |                |                |
| ☒ 063  | 398  | 0.9 to 1.3 | SILTY SAND with GRAVEL(SM) | 1.0               | NP | NP | NP |                |                |
| ▲ 064  | 399  | 2.4 to 2.9 | SILTY SAND with GRAVEL(SM) | 3.4               | NP | NP | NP |                |                |

| Field# | Lab# | % PASSING | Sieve Size (mm) |       |       |      |      |      |      |      |      |      |       |       |       | % Breakdown |        |      |      |
|--------|------|-----------|-----------------|-------|-------|------|------|------|------|------|------|------|-------|-------|-------|-------------|--------|------|------|
|        |      |           | 100.0           | 80.0  | 50.0  | 25.0 | 20.0 | 12.5 | 10.0 | 5.0  | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080       | Gravel | Sand | Silt |
| ● 062  | 397  | 100.0     | 100.0           | 100.0 | 100.0 | 97.2 | 94.9 | 87.1 | 83.3 | 70.4 | 59.0 | 49.3 | 42.1  | 34.8  | 29.3  | 25.2        | 29.6   | 45.2 | 25.2 |
| ☒ 063  | 398  | 100.0     | 100.0           | 100.0 | 100.0 | 95.5 | 93.5 | 90.9 | 82.0 | 71.5 | 61.2 | 53.2 | 45.0  | 39.0  | 34.6  | 18.0        | 47.4   | 34.6 |      |
| ▲ 064  | 399  | 100.0     | 100.0           | 100.0 | 93.6  | 87.6 | 82.1 | 78.4 | 66.2 | 58.4 | 51.5 | 45.2 | 38.9  | 33.9  | 30.4  | 33.8        | 35.8   | 30.4 |      |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |



Highways and Public Works  
Transportation Engineering Branch

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COMPILED BY: R.Stilwell  
REVIEWED BY: Dave Lorenzi

Pit #  
Complete:

|                     |                                      |                        |
|---------------------|--------------------------------------|------------------------|
| GRAIN SIZE ANALYSIS | Sheldon Bridge South                 | SOURCE/TP#: 902-5724.2 |
| Gateway Drilling    | km 355                               | PROJECT NO:            |
| 4 Solid Stem        | Coordinates: Z09V N6956200m E396468m | ELEVATION: 879m        |

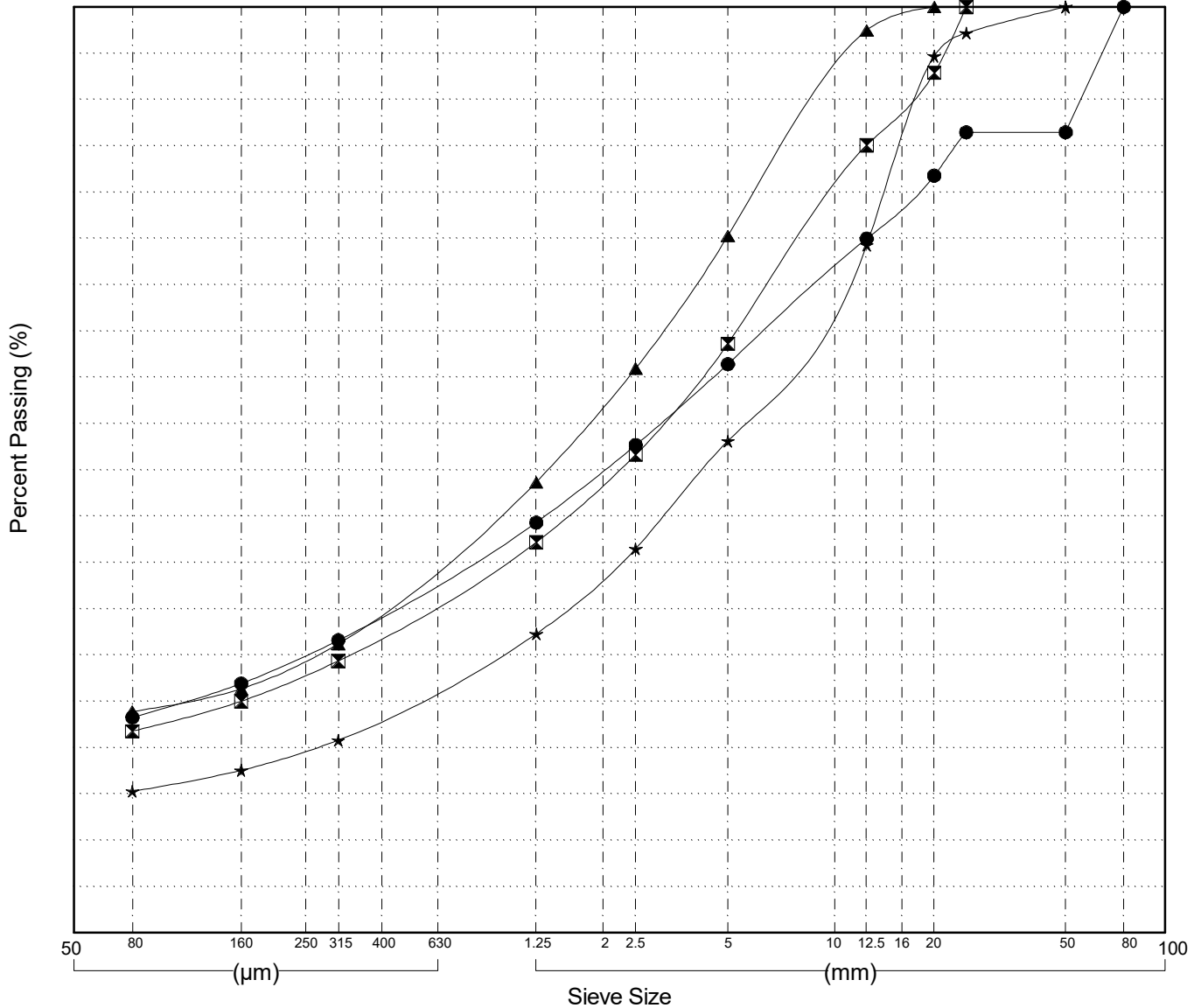
Master Revised July 2013

| Field# | Lab# | Depth      | Classification             | %H <sub>2</sub> O | LL | PL | PI | C <sub>c</sub> | C <sub>u</sub> |
|--------|------|------------|----------------------------|-------------------|----|----|----|----------------|----------------|
| ● 066  | 401  | 0.2 to 0.7 | SILTY GRAVEL with SAND(GM) | 3.4               | NP | NP | NP |                |                |
| ☒ 067  | 402  | 0.9 to 1.4 | SILTY SAND with GRAVEL(SM) | 4.1               | NP | NP | NP |                |                |
| ▲ 070  | 405  | 5.4 to 5.9 | SILTY SAND with GRAVEL(SM) | 9.6               | NP | NP | NP |                |                |
| ★ 071  | 406  | 6.0 to 6.5 | SILTY GRAVEL with SAND(GM) | 5.6               | NP | NP | NP |                |                |

| Field# | Lab# | % PASSING | Sieve Size (mm) |       |       |       |      |      |      |      |      |      |       |       |       | % Breakdown |        |      |      |
|--------|------|-----------|-----------------|-------|-------|-------|------|------|------|------|------|------|-------|-------|-------|-------------|--------|------|------|
|        |      |           | 100.0           | 80.0  | 50.0  | 25.0  | 20.0 | 12.5 | 10.0 | 5.0  | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080       | Gravel | Sand | Silt |
| ● 066  | 401  | 100.0     | 100.0           | 86.5  | 86.5  | 81.8  | 75.0 | 71.9 | 61.4 | 52.7 | 44.3 | 38.0 | 31.6  | 26.9  | 23.3  | 38.6        | 38.2   | 23.3 |      |
| ☒ 067  | 402  | 100.0     | 100.0           | 100.0 | 100.0 | 92.9  | 85.1 | 80.1 | 63.6 | 51.6 | 42.2 | 35.8 | 29.4  | 25.0  | 21.8  | 36.4        | 41.8   | 21.8 |      |
| ▲ 070  | 405  | 100.0     | 100.0           | 100.0 | 100.0 | 100.0 | 97.5 | 92.3 | 75.3 | 61.0 | 48.7 | 40.0 | 31.2  | 26.4  | 23.9  | 24.7        | 51.4   | 23.9 |      |
| ★ 071  | 406  | 100.0     | 100.0           | 100.0 | 97.2  | 94.7  | 74.3 | 69.4 | 53.1 | 41.5 | 32.3 | 26.6 | 20.8  | 17.6  | 15.3  | 46.9        | 37.8   | 15.3 |      |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |



|                     |                                     |                      |
|---------------------|-------------------------------------|----------------------|
| GRAIN SIZE ANALYSIS | Cariboo Bridge North                | SOURCE/TP#: 902-5725 |
| Gateway Drilling    | km 319                              | PROJECT NO:          |
| 4 Solid Stem        | Coordinates:Z09V N6929288m E376314m | ELEVATION: 879m      |

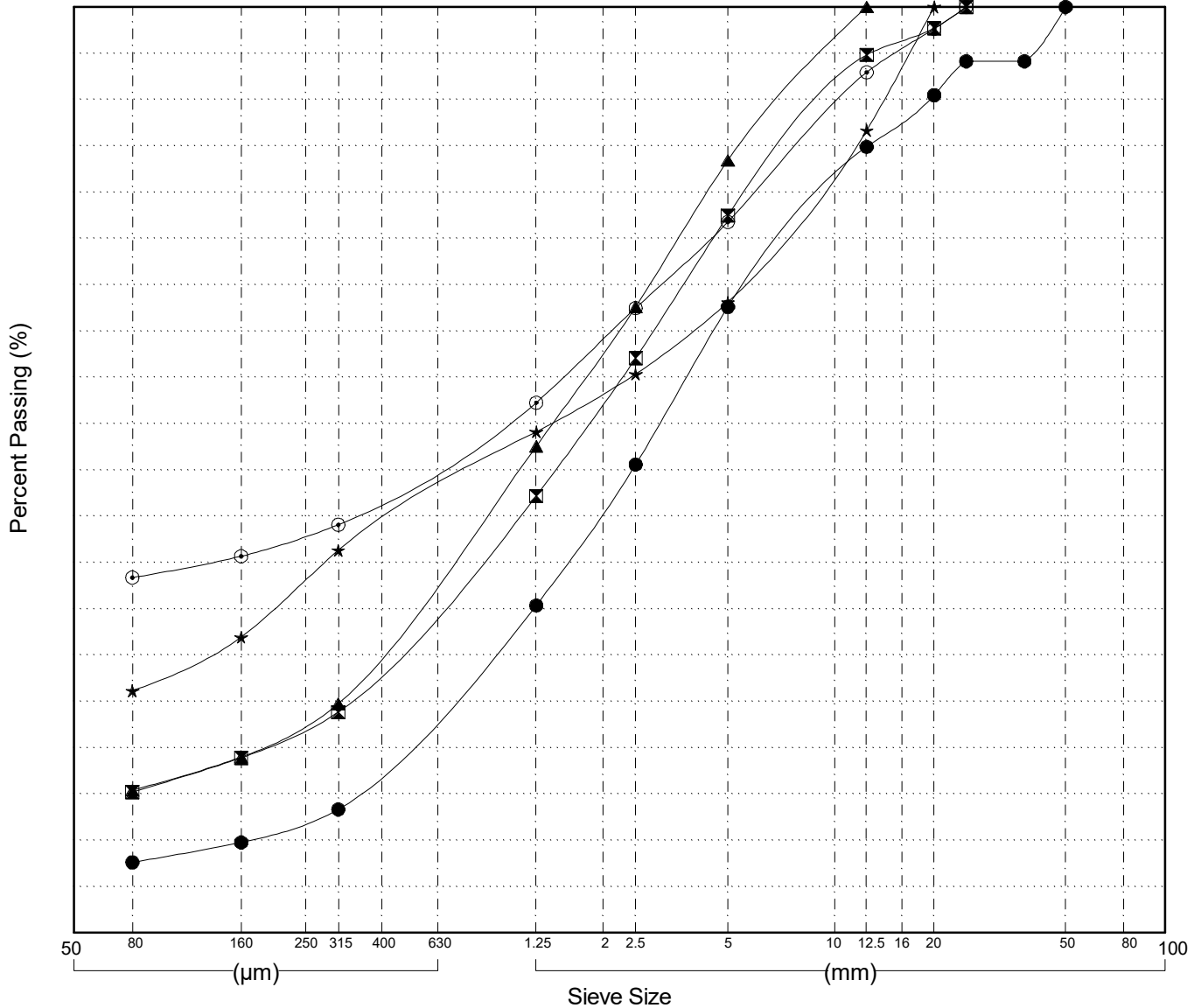
Master Revised July 2013

| Field# | Lab# | Depth      | Classification                               | %H2O | LL | PL | PI | Cc  | Cu   |
|--------|------|------------|--|------|----|----|----|-----|------|
| ● 072  | 407  | 1.5 to 2.4 | WELL-GRADED SAND with SILT and GRAVEL(SW-SM) | 2.9  | NP | NP | NP | 1.3 | 21.3 |
| ☒ 073  | 408  | 2.4 to 2.9 | SILTY SAND with GRAVEL(SM)                   | 5.8  | NP | NP | NP |     |      |
| ▲ 074  | 409  | 3.9 to 4.4 | SILTY SAND with GRAVEL(SM)                   | 4.4  | NP | NP | NP |     |      |
| ★ 075  | 410  | 5.4 to 5.9 | SILTY SAND with GRAVEL(SM)                   | 12.9 | NP | NP | NP |     |      |
| ⊙ 076  | 411  | 6.9 to 7.4 | SILTY SAND with GRAVEL(SM)                   | 10.8 | NP | NP | NP |     |      |

| Field# | Lab# | %PASSING |       |       |       |       |       |      |      |      |      |       |       |       |       |        | %Breakdown |      |      |  |
|--------|------|----------|-------|-------|-------|-------|-------|------|------|------|------|-------|-------|-------|-------|--------|------------|------|------|--|
|        |      | 100.0    | 80.0  | 50.0  | 25.0  | 20.0  | 12.5  | 10.0 | 5.0  | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080 | Gravel | Sand       | Silt | Clay |  |
| ● 072  | 407  | 100.0    | 100.0 | 100.0 | 94.1  | 90.5  | 84.9  | 80.9 | 67.6 | 50.6 | 35.4 | 24.4  | 13.3  | 9.8   | 7.6   | 32.4   | 60.0       | 7.6  |      |  |
| ☒ 073  | 408  | 100.0    | 100.0 | 100.0 | 100.0 | 97.7  | 94.8  | 90.8 | 77.5 | 62.1 | 47.2 | 35.6  | 23.8  | 18.9  | 15.2  | 22.5   | 62.3       | 15.2 |      |  |
| ▲ 074  | 409  | 100.0    | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 96.2 | 83.4 | 67.6 | 52.5 | 38.7  | 24.7  | 19.0  | 15.4  | 16.6   | 68.0       | 15.4 |      |  |
| ★ 075  | 410  | 100.0    | 100.0 | 100.0 | 100.0 | 100.0 | 86.7  | 82.4 | 68.1 | 60.4 | 54.1 | 47.8  | 41.3  | 31.9  | 26.1  | 31.9   | 42.0       | 26.1 |      |  |
| ⊙ 076  | 411  | 100.0    | 100.0 | 100.0 | 100.0 | 97.6  | 92.9  | 89.2 | 76.8 | 67.5 | 57.3 | 50.7  | 44.1  | 40.7  | 38.4  | 23.2   | 38.4       | 38.4 |      |  |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |

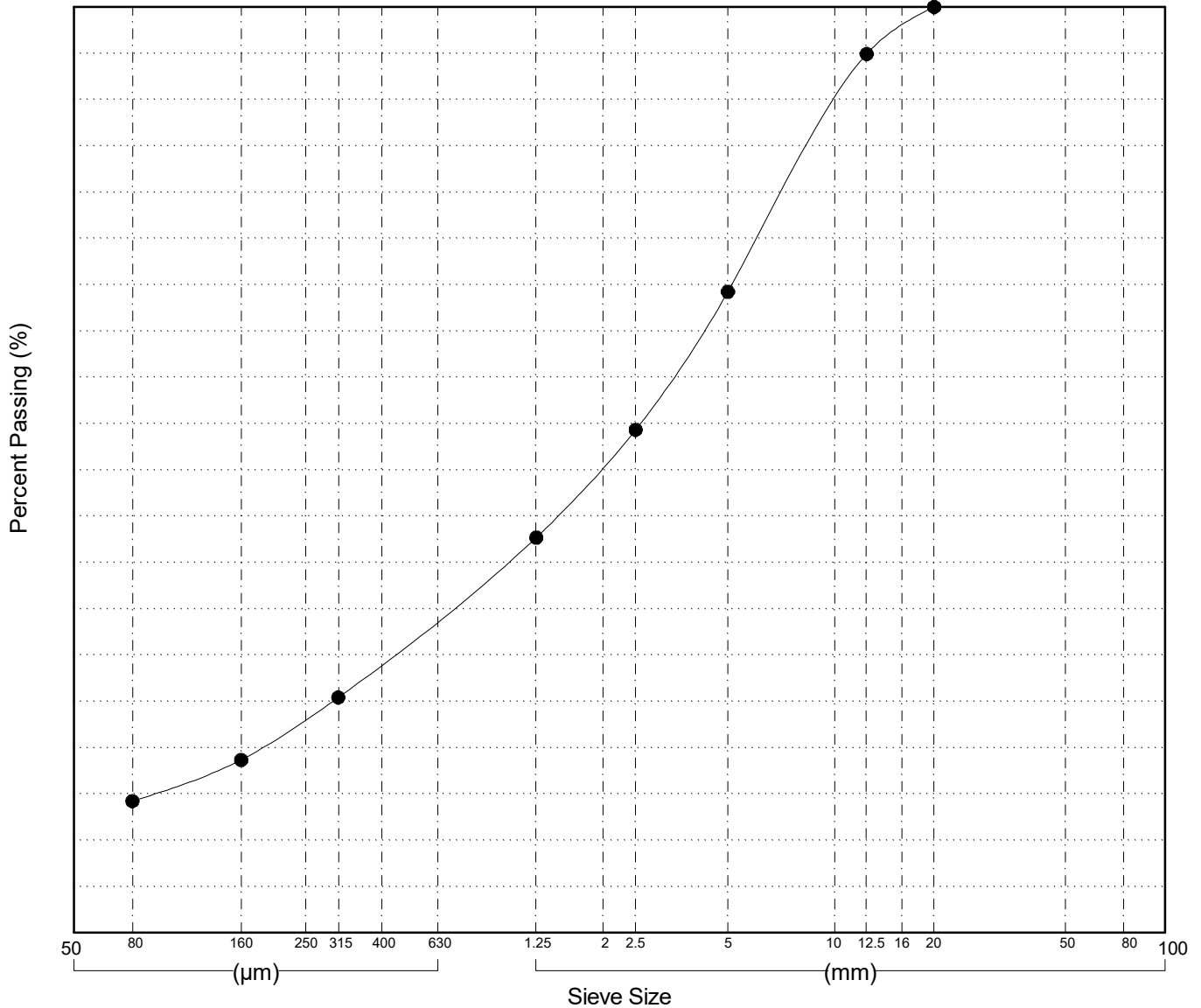


|                     |                                      |                      |
|---------------------|--------------------------------------|----------------------|
| GRAIN SIZE ANALYSIS | Cariboo Bridge North                 | SOURCE/TP#: 902-5725 |
| Gateway Drilling    | km 319                               | PROJECT NO:          |
| 4 Solid Stem        | Coordinates: Z09V N6929288m E376314m | ELEVATION: 879m      |

Master Revised July 2013

| Field# | Lab# | Depth      | Classification             | %H2O  | LL    | PL    | PI   | Cc   | Cu   |      |      |       |       |       |       |            |      |      |      |  |
|--------|------|------------|----------------------------|-------|-------|-------|------|------|------|------|------|-------|-------|-------|-------|------------|------|------|------|--|
| ● 077  | 412  | 8.4 to 8.9 | SILTY SAND with GRAVEL(SM) | 11.9  | NP    | NP    | NP   |      |      |      |      |       |       |       |       |            |      |      |      |  |
|        |      |            |                            |       |       |       |      |      |      |      |      |       |       |       |       |            |      |      |      |  |
|        |      |            |                            |       |       |       |      |      |      |      |      |       |       |       |       |            |      |      |      |  |
|        |      |            |                            |       |       |       |      |      |      |      |      |       |       |       |       |            |      |      |      |  |
|        |      |            |                            |       |       |       |      |      |      |      |      |       |       |       |       |            |      |      |      |  |
| Field# | Lab# | 100.0      | 80.0                       | 50.0  | 25.0  | 20.0  | 12.5 | 10.0 | 5.0  | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080 | %Breakdown |      |      |      |  |
| ● 077  | 412  | 100.0      | 100.0                      | 100.0 | 100.0 | 100.0 | 94.9 | 89.0 | 69.2 | 54.3 | 42.7 | 34.1  | 25.4  | 18.7  | 14.2  | Gravel     | Sand | Silt | Clay |  |
|        |      |            |                            |       |       |       |      |      |      |      |      |       |       |       |       | 30.8       | 55.0 | 14.2 |      |  |
|        |      |            |                            |       |       |       |      |      |      |      |      |       |       |       |       |            |      |      |      |  |
|        |      |            |                            |       |       |       |      |      |      |      |      |       |       |       |       |            |      |      |      |  |
|        |      |            |                            |       |       |       |      |      |      |      |      |       |       |       |       |            |      |      |      |  |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |
|      |      |        |        |        |        |



Highways and Public Works  
Transportation Engineering Branch

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REVIEWED BY: Dave Lorenzi

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|                     |                                     |                      |
|---------------------|-------------------------------------|----------------------|
| GRAIN SIZE ANALYSIS | Cariboo Bridge South                | SOURCE/TP#: 902-5726 |
| Gateway Drilling    | km 319                              | PROJECT NO:          |
| 4 Solid Stem        | Coordinates:Z09V N6929281m E376308m | ELEVATION: 877m      |

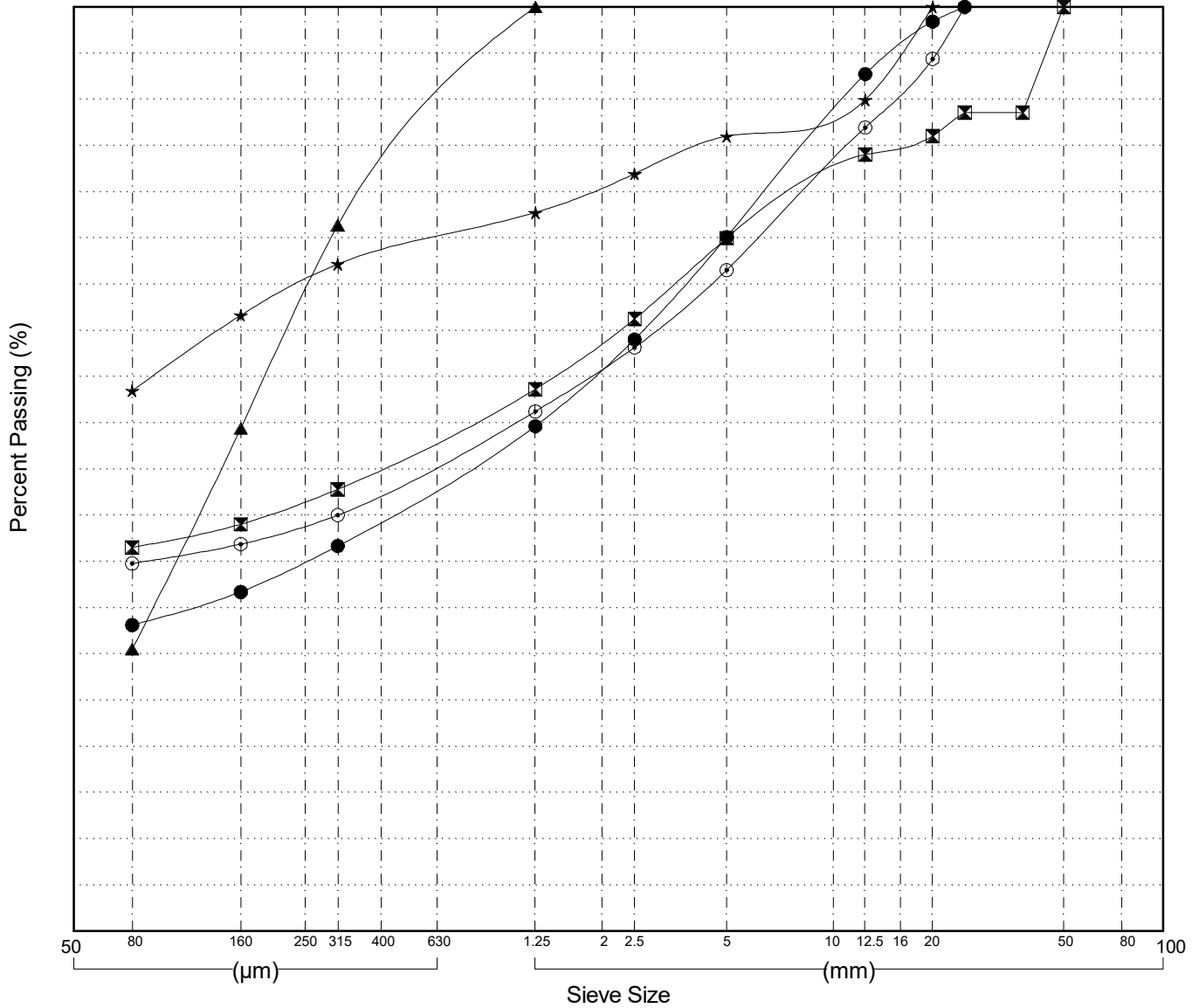
Master Revised July 2013

| Field# | Lab# | Depth      | Classification             | %H <sub>2</sub> O | LL | PL | PI | C <sub>c</sub> | C <sub>u</sub> |
|--------|------|------------|----------------------------|-------------------|----|----|----|----------------|----------------|
| ● 078  | 413  | 1.5 to 2.4 | SILTY SAND with GRAVEL(SM) | 4.5               | NP | NP | NP |                |                |
| ☒ 079  | 414  | 2.4 to 2.9 | SILTY SAND with GRAVEL(SM) | 7.7               | NP | NP | NP |                |                |
| ▲ 080  | 415  | 3.9 to 4.4 | SILTY SAND(SM)             | 11.8              | NP | NP | NP |                |                |
| ★ 081  | 416  | 5.4 to 5.9 | SANDY SILT(ML)             | 33.7              | NP | NP | NP |                |                |
| ⊙ 082  | 417  | 6.9 to 7.4 | SILTY SAND with GRAVEL(SM) | 6.6               | NP | NP | NP |                |                |

| Field# | Lab# | % PASSING |       |       |       |       |       |       |       |       |       |       |       |       |       | % Breakdown |      |      |      |
|--------|------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|------|------|------|
|        |      | 100.0     | 80.0  | 50.0  | 25.0  | 20.0  | 12.5  | 10.0  | 5.0   | 2.5   | 1.25  | 0.630 | 0.315 | 0.160 | 0.080 | Gravel      | Sand | Silt | Clay |
| ● 078  | 413  | 100.0     | 100.0 | 100.0 | 100.0 | 98.4  | 92.7  | 88.7  | 75.1  | 64.0  | 54.6  | 48.2  | 41.7  | 36.7  | 33.1  | 24.9        | 42.0 | 33.1 |      |
| ☒ 079  | 414  | 100.0     | 100.0 | 100.0 | 88.6  | 86.0  | 84.0  | 81.9  | 75.0  | 66.3  | 58.6  | 53.3  | 47.8  | 44.0  | 41.5  | 25.0        | 33.5 | 41.5 |      |
| ▲ 080  | 415  | 100.0     | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 88.3  | 76.4  | 54.4  | 30.5  | 0.0         | 69.5 | 30.5 |      |
| ★ 081  | 416  | 100.0     | 100.0 | 100.0 | 100.0 | 100.0 | 89.9  | 89.0  | 86.0  | 82.0  | 77.7  | 75.0  | 72.2  | 66.6  | 58.5  | 14.0        | 27.5 | 58.5 |      |
| ⊙ 082  | 417  | 100.0     | 100.0 | 100.0 | 100.0 | 94.4  | 87.0  | 83.4  | 71.5  | 63.2  | 56.2  | 50.7  | 45.0  | 41.9  | 39.8  | 28.5        | 31.7 | 39.8 |      |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |



Highways and Public Works  
Transportation Engineering Branch

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REVIEWED BY: Dave Lorenzi

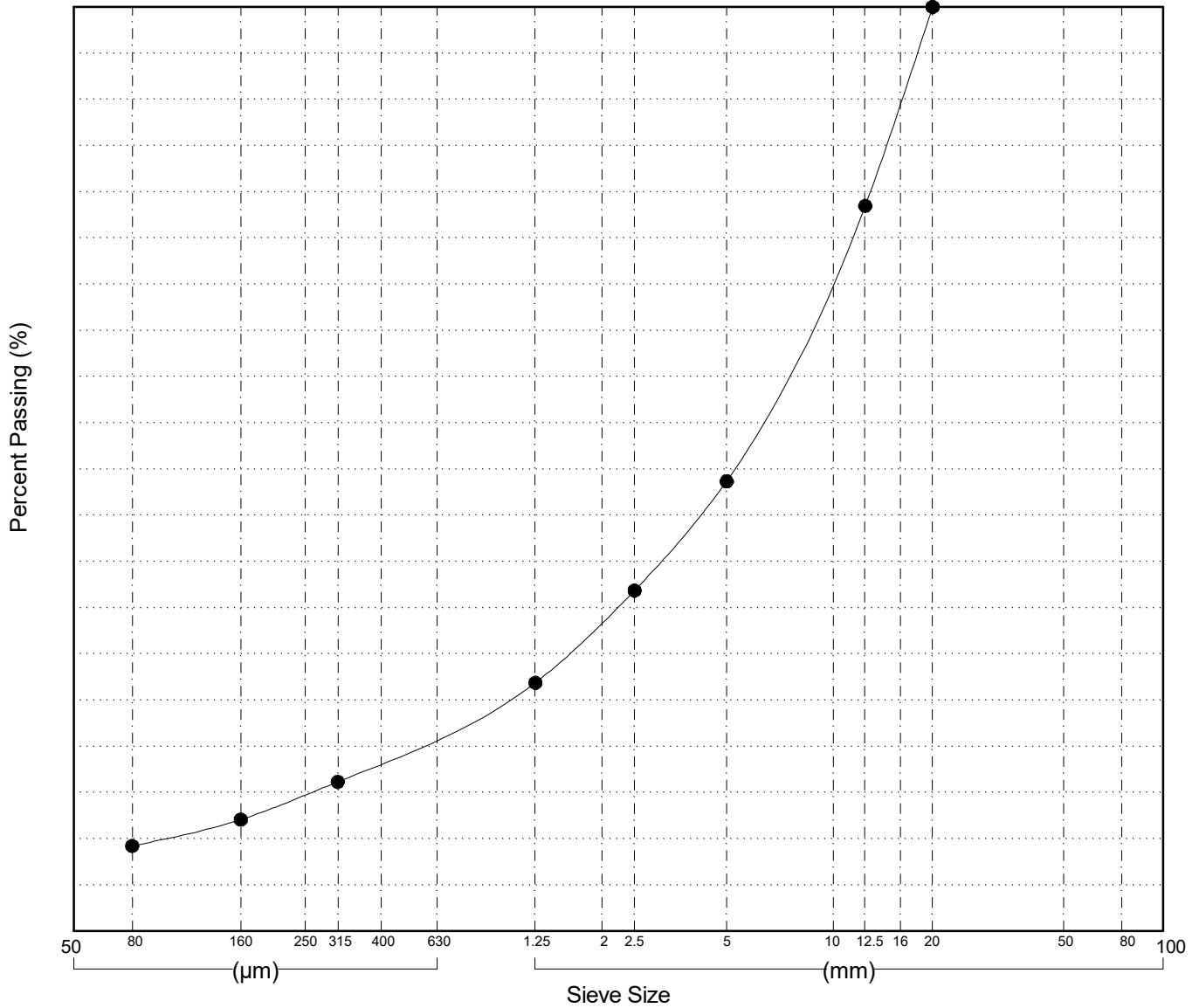
Pit #  
Complete: 9/17/2016 9:50:00 AM

|                     |                                      |                      |
|---------------------|--------------------------------------|----------------------|
| GRAIN SIZE ANALYSIS | Cariboo Bridge South                 | SOURCE/TP#: 902-5726 |
| Gateway Drilling    | km 319                               | PROJECT NO:          |
| 4 Solid Stem        | Coordinates: Z09V N6929281m E376308m | ELEVATION: 877m      |

Master Revised July 2013

| Field# | Lab# | Depth      | Classification                                 | %H2O  | LL    | PL    | PI   | Cc   | Cu   |      |      |       |       |       |       |            |      |      |      |
|--------|------|------------|--|-------|-------|-------|------|------|------|------|------|-------|-------|-------|-------|------------|------|------|------|
| ● 083  | 418  | 8.4 to 8.9 | POORLY GRADED GRAVEL with SILT and SAND(GP-GM) | 7.9   | NP    | NP    | NP   | 3.8  | 74.6 |      |      |       |       |       |       |            |      |      |      |
| Field# | Lab# | 100.0      | 80.0   | 50.0  | 25.0  | 20.0  | 12.5 | 10.0 | 5.0  | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080 | %Breakdown |      |      |      |
| ● 083  | 418  | 100.0      | 100.0  | 100.0 | 100.0 | 100.0 | 78.5 | 71.6 | 48.7 | 36.9 | 26.9 | 21.6  | 16.2  | 12.1  | 9.2   | Gravel     | Sand | Silt | Clay |
|        |      | % PASSING  |  |       |       |       |      |      |      |      |      |       |       |       |       | 51.3       | 39.4 | 9.2  |      |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |
|      |      |        |        |        |        |



Highways and Public Works  
Transportation Engineering Branch

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|                     |                                      |                      |
|---------------------|--------------------------------------|----------------------|
| GRAIN SIZE ANALYSIS | Deep Creek                           | SOURCE/TP#: 902-5727 |
| Gateway Drilling    |                                      | PROJECT NO:          |
| 4 Solid Stem        | Coordinates: Z09V N6883144m E340232m | ELEVATION: 775m      |

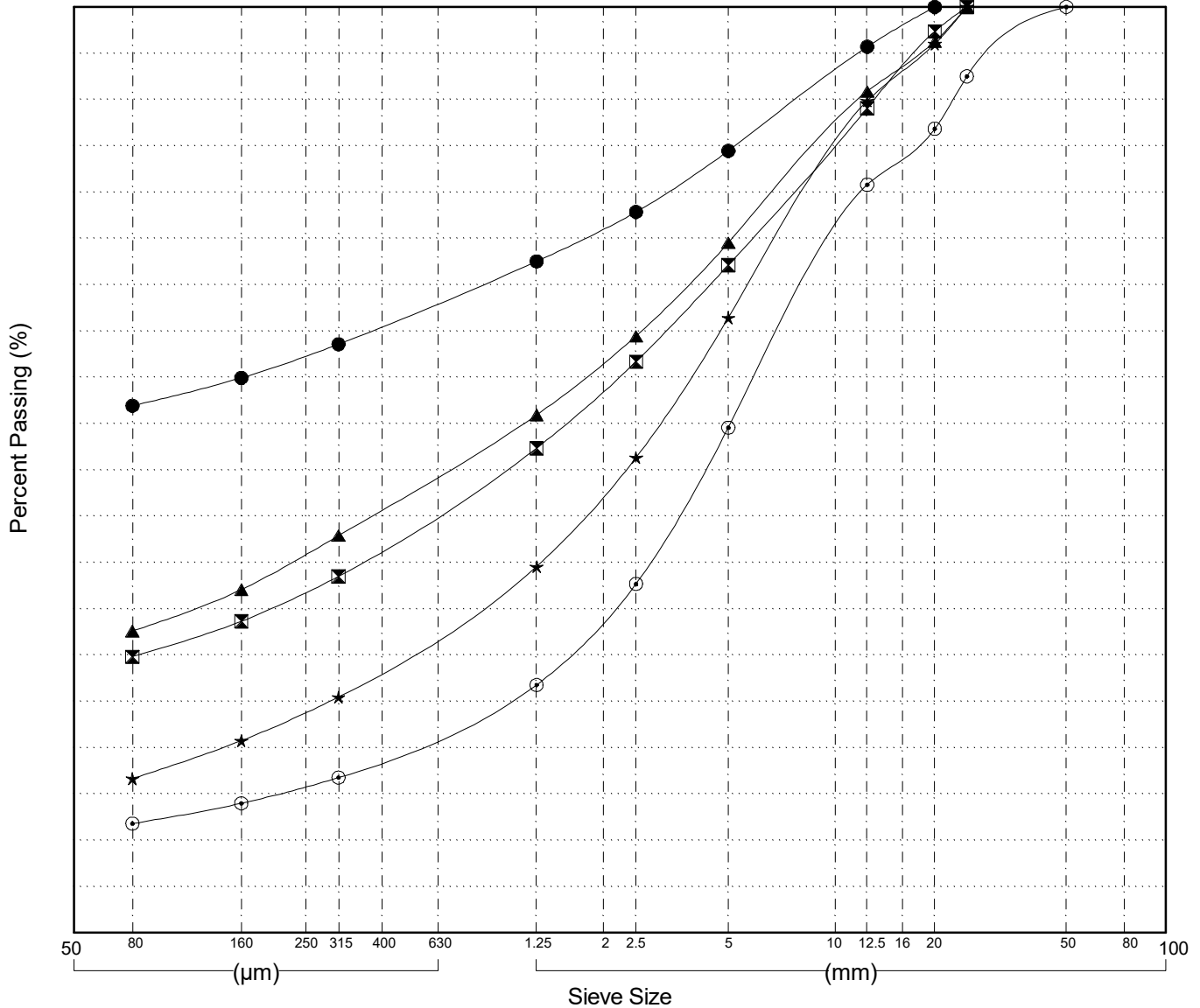
Master Revised July 2013

| Field# | Lab# | Depth      | Classification                                 | %H2O | LL | PL | PI | Cc   | Cu    |
|--------|------|------------|--|------|----|----|----|------|-------|
| ● 084  | 419  | 0.2 to 0.8 | SANDY SILT with GRAVEL(ML)                     | 8.9  | NP | NP | NP |      |       |
| ☒ 085  | 420  | 1.6 to 2.2 | SILTY SAND with GRAVEL(SM)                     | 7.5  | NP | NP | NP |      |       |
| ▲ 086  | 421  | 2.4 to 2.9 | SILTY SAND with GRAVEL(SM)                     | 9.8  | NP | NP | NP |      |       |
| ★ 087  | 422  | 3.9 to 4.4 | SILTY SAND with GRAVEL(SM)                     | 3.6  | NP | NP | NP |      |       |
| ⊙ 088  | 423  | 5.1 to 5.5 | POORLY GRADED GRAVEL with SILT and SAND(GP-GM) | 10.3 | NP | NP | NP | 10.1 | 144.4 |

| Field# | Lab# | % PASSING | Sieve Size (mm) |       |       |       |      |      |      |      |      |      |       |       |       | % Breakdown |        |      |      |
|--------|------|-----------|-----------------|-------|-------|-------|------|------|------|------|------|------|-------|-------|-------|-------------|--------|------|------|
|        |      |           | 100.0           | 80.0  | 50.0  | 25.0  | 20.0 | 12.5 | 10.0 | 5.0  | 2.5  | 1.25 | 0.630 | 0.315 | 0.160 | 0.080       | Gravel | Sand | Silt |
| ● 084  | 419  | 100.0     | 100.0           | 100.0 | 100.0 | 100.0 | 95.7 | 93.1 | 84.5 | 77.9 | 72.5 | 68.1 | 63.6  | 59.9  | 56.9  | 15.5        | 27.5   | 56.9 |      |
| ☒ 085  | 420  | 100.0     | 100.0           | 100.0 | 100.0 | 97.4  | 89.1 | 85.2 | 72.1 | 61.7 | 52.3 | 45.5 | 38.5  | 33.6  | 29.8  | 27.9        | 42.3   | 29.8 |      |
| ▲ 086  | 421  | 100.0     | 100.0           | 100.0 | 100.0 | 96.3  | 90.9 | 87.1 | 74.5 | 64.4 | 55.9 | 49.5 | 42.9  | 37.1  | 32.6  | 25.5        | 41.9   | 32.6 |      |
| ★ 087  | 422  | 100.0     | 100.0           | 100.0 | 100.0 | 96.0  | 89.9 | 84.4 | 66.4 | 51.3 | 39.6 | 32.6 | 25.5  | 20.8  | 16.7  | 33.6        | 49.8   | 16.7 |      |
| ⊙ 088  | 423  | 100.0     | 100.0           | 100.0 | 92.5  | 86.8  | 80.8 | 74.7 | 54.6 | 37.7 | 26.8 | 21.8 | 16.8  | 14.0  | 11.8  | 45.4        | 42.8   | 11.8 |      |

| Silt | Sand |        |        | Gravel |        |
|------|------|--------|--------|--------|--------|
|      | Fine | Medium | Coarse | Fine   | Coarse |



Highways and Public Works  
Transportation Engineering Branch

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