



QS
4708 N Barker RD
Spokane Valley, WA 99027
Telephone: 509-892-9409

BORING NUMBER BH-151

PAGE 1 OF 1

CLIENT PAR Electrical Contractors PROJECT NAME Northern Pass
 PROJECT NUMBER 16004 PROJECT LOCATION Woodstock, NH
 DATE STARTED 7/26/16 COMPLETED 7/26/16 GROUND ELEVATION NA HOLE SIZE 4 in
 DRILLING CONTRACTOR SW Cole LATITUDE 44.019886 LONGITUDE -71.744384
 DRILLING METHOD Solid Stem Auger DRILLING EQUIPMENT Diedrich D50 SPT HAMMER 140 lb Auto
 LOGGED BY S. Kearney CHECKED BY S. Kearney GROUND WATER LEVEL:
 NOTES _____

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	REMARKS
0							
5	SPT 1	50	3-3-5 (8)	SP-SM		FILL: POORLY GRADED SAND WITH SILT (SP-SM), gray, moist, loose, medium grained sand	
				OL		ORGANIC DEPOSITS: ORGANIC SOIL (OL), black, moist, fine to medium grained sand	
				SW-SM		STREAM TERRACE DEPOSITS: WELL GRADED SAND WITH SILT AND GRAVEL (SW-SM), orange and brown, wet, very dense, fine to coarse grained gravel, fine to coarse grained sand, subrounded	
10	SPT 2	100	50/3"	SW-SM		-boulder from 9.5 to 12.5 ft	
						BEDROCK: Probable bedrock	
15							auger refusal at 15 ft

Bottom of borehole at 15.0 ft.
Backfilled with auger cuttings

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/4/16 12:05 - C:\USERS\ILGSCHWIND\DESKTOP\SW-GW.GPJ



QS
4708 N Barker RD
Spokane Valley, WA 99027
Telephone: 509-892-9409

BORING NUMBER BH-152

PAGE 1 OF 1

CLIENT PAR Electrical Contractors PROJECT NAME Northern Pass
 PROJECT NUMBER 16004 PROJECT LOCATION Woodstock, NH
 DATE STARTED 7/26/16 COMPLETED 7/26/16 GROUND ELEVATION NA HOLE SIZE 4 in
 DRILLING CONTRACTOR SW Cole LATITUDE 44.01993 LONGITUDE -71.741195
 DRILLING METHOD Solid Stem Auger DRILLING EQUIPMENT Diedrich D50 SPT HAMMER 140 lb Auto
 LOGGED BY S. Kearney CHECKED BY S. Kearney GROUND WATER LEVEL:
 NOTES _____

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 15:59 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NORTHERN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NH\NPNW\STOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
4.5	SPT 1	47	2-3-50/3"	SP		FILL: POORLY GRADED SAND WITH GRAVEL (SP), trace organics, grayish brown, moist, very dense, fine to coarse grained gravel, fine to coarse grained sand, subrounded
5				SM		TILL: SILTY SAND WITH GRAVEL (SM), dark gray, moist, very dense, fine to coarse grained gravel, fine to coarse grained sand, angular -boulder from 5.3 to 8.6 ft
10	SPT 2	28	4-11-19 (30)	SM		
13.0						
14.3	SPT 3	100	50/4"			BEDROCK: Highly weathered (IV), orangeish white and brown, medium to coarse grained, medium strong (R3), GRANITE, moist

Bottom of borehole at 14.3 ft.
Backfilled with auger cuttings



QS
4708 N Barker RD
Spokane Valley, WA 99027
Telephone: 509-892-9409

BORING NUMBER BH-153

PAGE 1 OF 1

CLIENT PAR Electrical Contractors PROJECT NAME Northern Pass
 PROJECT NUMBER 16004 PROJECT LOCATION Woodstock, NH
 DATE STARTED 7/26/16 COMPLETED 7/26/16 GROUND ELEVATION NA HOLE SIZE 4 in
 DRILLING CONTRACTOR SW Cole LATITUDE 44.020852 LONGITUDE -71.737593
 DRILLING METHOD Solid Stem Auger DRILLING EQUIPMENT Diedrich D50 SPT HAMMER 140 lb Auto
 LOGGED BY S. Kearney CHECKED BY S. Kearney GROUND WATER LEVEL:
 NOTES ▽ AT TIME OF DRILLING 6.0ft

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
				SW-SM		FILL: GRAVELLY WELL GRADED SAND WITH SILT (SW-SM), grayish brown, fine to coarse grained gravel, fine to coarse grained sand, subrounded
				OL		ORGANIC DEPOSITS: ORGANIC SOIL WITH SAND (OL), dark brown, wet, medium dense, fine to medium grained sand, some cobbles
5	SPT 1	72	14-17-32 (49)			
						STREAM TERRACE DEPOSITS: COBBLES AND BOULDERS
						▽
10	SPT 2	50	35-35-30 (65)	SM-GM		TILL: SILTY SAND WITH GRAVEL (SM-GM), dark gray, moist, very dense, fine to coarse grained gravel, fine to coarse grained sand, angular
						-gravel and cobbles at 13 ft
						-highly oxidized zone
15	SPT 3	56	5-20-31 (51)	SM-GM		

Bottom of borehole at 15.5 ft.
Backfilled with auger cuttings

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/4/16 12:05 - C:\USERS\ILGSCHWIN\DESKTOP\SW-GW.GPJ



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

BORING NUMBER BH-154

CLIENT PAR Electrical Contractors **PROJECT NAME** Northern Pass
PROJECT NUMBER 16004 **PROJECT LOCATION** Woodstock, NH
DATE STARTED 7/26/16 **COMPLETED** 7/26/16 **GROUND ELEVATION** NA **HOLE SIZE** 4 in
DRILLING CONTRACTOR SW Cole **LATITUDE** 44.021439 **LONGITUDE** -71.733845
DRILLING METHOD Solid Stem Auger/Hollow Stem Auger **DRILLING EQUIPMENT** Diedrich D50 **SPT HAMMER** 140 lb Auto
LOGGED BY S. Kearney **CHECKED BY** S. Kearney **GROUND WATER LEVEL:**
NOTES _____

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NORTHERN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NH\NPNW\STOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
4.8	SPT 1	63	12-39-50/4"	OL		ORGANIC DEPOSITS: ORGANIC SOIL WITH SAND (OL), black, wet, medium dense, fine to medium grained sand, granitic cobble
4.8 - 10.0				SM		TILL: SILTY SAND WITH GRAVEL (SM), gray, moist, very dense, fine grained gravel, fine grained sand, angular
10.0	SPT 2	83	23-37-50 (87)	SM		
14.0 - 14.5	SPT 3	100	50/5"	GP		TILL: Granitic cobbles

Bottom of borehole at 14.5 ft.
 Backfilled with auger cuttings



QS
4708 N Barker RD
Spokane Valley, WA 99027
Telephone: 509-892-9409

BORING NUMBER BH-155

PAGE 1 OF 1

CLIENT PAR Electrical Contractors	PROJECT NAME Northern Pass
PROJECT NUMBER 16004	PROJECT LOCATION Woodstock, NH
DATE STARTED 7/26/16	COMPLETED 7/26/16
DRILLING CONTRACTOR SW Cole	GROUND ELEVATION NA
DRILLING METHOD Solid Stem Auger/Hollow Stem Auger	HOLE SIZE 4 in
LOGGED BY S. Kearney	LATITUDE 44.023933
CHECKED BY S. Kearney	LONGITUDE -71.727683
NOTES	DRILLING EQUIPMENT Diedrich D50
	SPT HAMMER 140 lb Auto
	GROUND WATER LEVEL:
	▽ AT TIME OF DRILLING 8.5ft

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\LGSC\HWIN\IDESTOP\PROJECTS\NORTHERN PASS\NHNORTHERN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NHN\NPNW\STOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0				SC		ORGANIC DEPOSITS: SANDY CLAY (SC), with gravel, trace organics, black, coarse grained gravel, fine to medium grained sand, subrounded
2.0				GP		STREAM TERRACE DEPOSITS: POORLY GRADED GRAVEL (GP), brownish gray, moist, very dense -boulders present
5	SPT 1	50	50/2"			
	SPT 2	78	25-50/3"			
8.5				SM-ML		TILL: SILTY SAND WITH GRAVEL (SM-ML), gray, moist, very dense, fine to coarse grained gravel, fine to coarse grained sand, angular
10	SPT 3	89	31-41-54 (95)			
14.5	SPT 4	100	50	SM-ML		-gravel content increases

Bottom of borehole at 14.5 ft.
Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

BORING NUMBER BH-156

CLIENT PAR Electrical Contractors **PROJECT NAME** Northern Pass
PROJECT NUMBER 16004 **PROJECT LOCATION** Woodstock, NH
DATE STARTED 7/25/16 **COMPLETED** 7/25/16 **GROUND ELEVATION** NA **HOLE SIZE** 5.5 in
DRILLING CONTRACTOR SW Cole **LATITUDE** 44.026197 **LONGITUDE** -71.72425
DRILLING METHOD Hollow Stem Auger **DRILLING EQUIPMENT** Diedrich D50 **SPT HAMMER** 140 lb Auto
LOGGED BY S. Kearney **CHECKED BY** S. Kearney **GROUND WATER LEVEL:**
NOTES _____

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\ILGSCHWIN\IDESKTOP\PROJECTS\NORTHERN PASS\NORTHERN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NH\NPNW\STOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0				SC		FILL: CLAYEY SAND (SC), brown and black, wet, medium dense, fine to medium grained sand, with organic clay clumps
5	SPT 1	56	7-8-14 (22)	SM	4.5	ALLUVIUM: SILTY SAND (SM), brown, moist, medium dense, fine to medium grained sand
10	SPT 2	100	15-50	ML	8.5	TILL: SANDY SILT WITH GRAVEL (ML), dark gray, wet, very hard, coarse grained gravel, fine to medium grained sand, angular, iron oxide staining
	SPT 3	0	50	ML	14.5	

Bottom of borehole at 14.5 ft.
Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

CLIENT PAR Electrical Contractors **PROJECT NAME** Northern Pass
PROJECT NUMBER 16004 **PROJECT LOCATION** Woodstock, NH
DATE STARTED 7/25/16 **COMPLETED** 7/25/16 **GROUND ELEVATION** NA **HOLE SIZE** 5.5 in
DRILLING CONTRACTOR SW Cole **LATITUDE** 44.02783 **LONGITUDE** -71.722037
DRILLING METHOD Hollow Stem Auger **DRILLING EQUIPMENT** Diedrich D50 **SPT HAMMER** 140 lb Auto
LOGGED BY S. Kearney **CHECKED BY** S. Kearney **GROUND WATER LEVEL:**
NOTES _____

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\ILGSCHWIN\DESKTOP\PROJECTS\NORTHERN PASS\NHNORTHEN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NHNPNW.DSTOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
4.0				SM		FILL: SILTY SAND WITH GRAVEL (SM), brown, fine to coarse grained gravel, fine to medium grained sand, subangular, cobbles present
5	SPT 1	17	5-4-4 (8)	ML		ORGANIC DEPOSITS: SANDY SILT (ML), trace organics, dark brown, wet, firm, fine to medium grained sand
7.0						
10	SPT 2	83	7-50	SP		STREAM TERRACE DEPOSITS: POORLY GRADED SAND (SP), gray, wet, very dense, medium grained sand, light brown, silty sand at 10 ft
10.0						
15	SPT 3	56	22-20-27 (47)	ML		TILL: SANDY SILT WITH GRAVEL (ML), dark gray, moist, hard, fine grained gravel, fine to coarse grained sand
15.5						

Bottom of borehole at 15.5 ft.
 Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

BORING NUMBER BH-159

PAGE 1 OF 1

CLIENT PAR Electrical Contractors **PROJECT NAME** Northern Pass
PROJECT NUMBER 16004 **PROJECT LOCATION** Woodstock, NH
DATE STARTED 7/25/16 **COMPLETED** 7/25/16 **GROUND ELEVATION** NA **HOLE SIZE** 5.5 in
DRILLING CONTRACTOR SW Cole **LATITUDE** 44.029258 **LONGITUDE** -71.715416
DRILLING METHOD Hollow Stem Auger **DRILLING EQUIPMENT** Diedrich D50 **SPT HAMMER** 140 lb Auto
LOGGED BY S. Kearney **CHECKED BY** S. Kearney **GROUND WATER LEVEL:**
NOTES _____

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NHNORTHERN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NHNPNWDSTOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
5	SPT 1	44	2-1-2 (3)	SP		FILL: POORLY GRADED SAND (SP), trace gravel, trace asphalt, dark brown, moist to wet, very loose, coarse grained gravel, fine to medium grained sand, subrounded
6.0				ML		ORGANIC DEPOSITS: SANDY SILT (ML), trace organics, dark brown to black, wet, very soft, low plasticity, fine to medium grained sand, gravel present at 10 ft
10	SPT 2	39	1-1-10 (11)	ML		
10.0				SP-GP		STREAM TERRACE DEPOSITS: POORLY GRADED SAND WITH GRAVEL (SP-GP), light brown, moist, very dense, fine to coarse grained gravel, medium to coarse grained sand, subrounded -boulder present from 11.1 to 13.1 ft
15	SPT 3	56	16-50/3"	SP-GP		
15.5						

Bottom of borehole at 15.5 ft.
Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

BORING NUMBER BH-160

PAGE 1 OF 1

CLIENT PAR Electrical Contractors **PROJECT NAME** Northern Pass
PROJECT NUMBER 16004 **PROJECT LOCATION** Woodstock, NH
DATE STARTED 9/21/16 **COMPLETED** 9/21/16 **GROUND ELEVATION** NA **HOLE SIZE** 4 in
DRILLING CONTRACTOR SW Cole **LATITUDE** 44.02945 **LONGITUDE** -71.71149
DRILLING METHOD Solid Stem Auger **DRILLING EQUIPMENT** CME 850 **SPT HAMMER** 140 lb Auto
LOGGED BY S. Tiger **CHECKED BY** S. Kearney **GROUND WATER LEVEL:** _____

NOTES _____

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/4/16 12:05 - C:\USERS\ILGSHW\DESKTOP\SW-GW.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
4.5				SP		FILL: POORLY GRADED SAND (SP), trace gravel, grayish brown, moist, loose, fine grained gravel, fine to medium grained sand, subangular to subrounded
5	SPT 1	83	1-2-5 (7)	SW-SM		ALLUVIUM: WELL GRADED SAND WITH SILT AND GRAVEL (SW-SM), trace organics, moderate yellowish brown, moist, loose, fine grained gravel, fine to coarse grained sand, subangular to subrounded, micaceous -boulders and cobbles from 6.5 to 10 ft
10	SPT 2		16-10-7 (17)	SW-SM		
10.5				ML		TILL: SILT WITH GRAVEL (ML), olive gray, moist, very stiff, fine to coarse grained gravel, angular to subangular, trace pyrite
15	SPT 3		22-32-50/5"	ML		-becomes hard, with sand
16.4						

Bottom of borehole at 16.4 ft.
 Backfilled with auger cuttings



QS
4708 N Barker RD
Spokane Valley, WA 99027
Telephone: 509-892-9409

BORING NUMBER BH-161

PAGE 1 OF 1

CLIENT PAR Electrical Contractors PROJECT NAME Northern Pass
 PROJECT NUMBER 16004 PROJECT LOCATION Easton, NH
 DATE STARTED 5/27/16 COMPLETED 5/27/16 GROUND ELEVATION NA HOLE SIZE 6 in
 DRILLING CONTRACTOR SW Cole LATITUDE 44.029281 LONGITUDE -71.707821
 DRILLING METHOD Hollow Stem Auger DRILLING EQUIPMENT Diedrich D50 SPT HAMMER 140 lb Auto
 LOGGED BY S. Kearney CHECKED BY S. Kearney GROUND WATER LEVEL:
 NOTES drilled at stake location

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 22:35 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NORTHERN PASS TRENCH COMPLETED LOGS\PLYMOUTH_NH\NPP\LYM.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
0.5				OL		ORGANIC DEPOSITS: (OL)
5	SPT 1	100	20-39-40 (79)	SP-GP		STREAM TERRACE DEPOSITS: POORLY GRADED SAND WITH GRAVEL (SP-GP), with cobbles, and boulders, grayish brown, moist, very dense, fine to coarse grained gravel, medium to coarse grained sand, subrounded
9.0	SPT 2	83	50	GP		TILL: POORLY GRADED GRAVEL WITH SAND (GP), gray, moist, very dense, fine to coarse grained gravel, medium to coarse grained sand, subrounded
14.0	SPT 3	78	39-50/3"	SM		TILL: SILTY SAND WITH GRAVEL (SM), gray, moist, very dense, fine to coarse grained gravel, fine to medium grained sand, subrounded
15.0						

Bottom of borehole at 15.0 ft.
Backfilled with auger cuttings



QS
4708 N Barker RD
Spokane Valley, WA 99027
Telephone: 509-892-9409

BORING NUMBER BH-162

PAGE 1 OF 1

CLIENT PAR Electrical Contractors
PROJECT NUMBER 16004
DATE STARTED 5/27/16 **COMPLETED** 5/27/16
DRILLING CONTRACTOR SW Cole
DRILLING METHOD Hollow Stem Auger
LOGGED BY S. Kearney **CHECKED BY** S. Kearney
NOTES drilled at stake location

PROJECT NAME Northern Pass
PROJECT LOCATION Woodstock, NH
GROUND ELEVATION NA **HOLE SIZE** 6 in
LATITUDE 44.029997 **LONGITUDE** -71.704391
DRILLING EQUIPMENT Diedrich D50 **SPT HAMMER** 140 lb Auto
GROUND WATER LEVEL:

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NHNORTHERN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NHN\NPNW\STOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
				SM	0.5	ORGANIC DEPOSITS
				SM	2.0	FILL: SILTY SAND WITH GRAVEL (SM), and cobbles, brown, loose, fine to coarse grained gravel, fine to medium grained sand
				SP		STREAM TERRACE DEPOSITS: POORLY GRADED SAND WITH GRAVEL (SP), and cobbles, gray, moist, very dense, fine to coarse grained gravel, fine to medium grained sand, subrounded
5	SPT 1	72	22-41-50 (91)			
				SM	7.5	STREAM TERRACE DEPOSITS: SILTY SAND WITH GRAVEL (SM), gray, moist, very dense, fine to coarse grained gravel, fine to medium grained sand, subrounded
10	SPT 2	94	36-42-50 (92)			
				SM	15.5	
15	SPT 3	56	15-33-21 (54)			

Bottom of borehole at 15.5 ft.
Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

BORING NUMBER BH-165

CLIENT PAR Electrical Contractors
PROJECT NUMBER 16004
DATE STARTED 7/22/16 **COMPLETED** 7/22/16
DRILLING CONTRACTOR SW Cole
DRILLING METHOD Solid Stem Auger/Hollow Stem Auger
LOGGED BY S. Kearney **CHECKED BY** S. Kearney
NOTES hit unmarked water line at 6.4 ft

PROJECT NAME Northern Pass
PROJECT LOCATION Woodstock, NH
GROUND ELEVATION NA **HOLE SIZE** 4.5 in
LATITUDE 44.030142 **LONGITUDE** -71.687863
DRILLING EQUIPMENT Diedrich D50 **SPT HAMMER** 140 lb Auto
GROUND WATER LEVEL:

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\ILGSCHWIND\DESKTOP\PROJECTS\NORTHERN PASS\NHNORTHEN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NHNPNWDSTOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
5	SPT 1	28	8-10-9 (19)	SP		FILL: POORLY GRADED SAND WITH GRAVEL (SP), brown, moist, medium dense, fine to medium grained, fine grained gravel
6.4						

Bottom of borehole at 6.4 ft.
Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

BORING NUMBER BH-166

CLIENT PAR Electrical Contractors **PROJECT NAME** Northern Pass
PROJECT NUMBER 16004 **PROJECT LOCATION** Woodstock, NH
DATE STARTED 9/1/16 **COMPLETED** 9/1/16 **GROUND ELEVATION** NA **HOLE SIZE** 4 in
DRILLING CONTRACTOR SW Cole **LATITUDE** 44.028815 **LONGITUDE** -71.685487
DRILLING METHOD Hollow Stem Auger **DRILLING EQUIPMENT** Diedrich D50 **SPT HAMMER** 140 lb Auto
LOGGED BY J. Melton **CHECKED BY** S. Kearney **GROUND WATER LEVEL:**
NOTES vacuumed to 7 ft before drilling

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\LGSC\HWINDESKTOP\PROJECTS\NORTHERN PASS\NHNORTHERN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NHN\NPNW\STOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
					1.0	FILL: ASPHALT
				SM	1.0	FILL: SILTY SAND (SM), with cobbles, rounded
					4.0	
5				GM	4.0	STREAM TERRACE DEPOSITS: SILTY GRAVEL WITH SAND (GM) -boulders up to 1 ft in diameter
10	SPT 1	24	26-16-50/5"	GM	10	STREAM TERRACE DEPOSITS: SILTY GRAVEL WITH SAND (GM), pale yellowish brown, dry, very dense, very fine to fine grained, medium to very coarse grained gravel, angular to subangular
15	SPT 2	44	10-19-24 (43)	GM	15	-becomes dense, with oxidation zones
					16.5	

Bottom of borehole at 16.5 ft.
 Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

BORING NUMBER BH-167

PAGE 1 OF 1

CLIENT PAR Electrical Contractors
PROJECT NUMBER 16004
DATE STARTED 9/27/16 **COMPLETED** 9/28/16
DRILLING CONTRACTOR SW Cole
DRILLING METHOD HSA/Wireline Coring / NQ Size/Series 8
LOGGED BY J. Melton **CHECKED BY** S. Kearney
NOTES drilled at stake location

PROJECT NAME Northern Pass
PROJECT LOCATION Woodstock, NH
GROUND ELEVATION NA **HOLE SIZE** 6 in
LATITUDE 44.023246 **LONGITUDE** -71.684354
DRILLING EQUIPMENT Diedrich D50 **SPT HAMMER** 140 lb Auto
GROUND WATER LEVEL:

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\LSCHWIN\DESKTOP\PROJECTS\NORTHERN PASS\NORTHERN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NH\NPNW\STOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
4.3				OL		FILL: ORGANIC SILT (OL), with organics, dusky brown, dry, very loose, very fine grained
5	SPT 1	50	15-12-11 (23)			ALLUVIUM: Highly to completely weathered, massive, light brown (5YR 5/6), medium to coarse grained, extremely weak granite
6.0						BEDROCK: Highly weathered (IV) to completely weathered (V), light brown, yellowish red / light brown (5YR 5/6), medium to coarse grained, extremely weak (R0), GRANITE, with extensive oxidation
7.5						BEDROCK: Fresh (I), light gray to medium dark gray, light gray (N7) to medium dark gray (N4), medium to coarse grained, strong (R4), GNEISS, weakly foliated, with extensive pyrite mineralization
10	RC 1	78 (56)				
15	RC 2	100 (100)				-becomes foliated

Bottom of borehole at 15.0 ft.
 Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

BORING NUMBER BH-168

CLIENT PAR Electrical Contractors **PROJECT NAME** Northern Pass

PROJECT NUMBER 16004 **PROJECT LOCATION** Woodstock, NH

DATE STARTED 5/27/16 **COMPLETED** 5/27/16 **GROUND ELEVATION** NA **HOLE SIZE** 6 in

DRILLING CONTRACTOR SW Cole **LATITUDE** 44.020323 **LONGITUDE** -71.683247

DRILLING METHOD HSA/Wireline Coring / NQ Size/Series 8 **DRILLING EQUIPMENT** Diedrich D50 **SPT HAMMER** 140 lb Auto

LOGGED BY S. Kearney **CHECKED BY** S. Kearney **GROUND WATER LEVEL:**

NOTES

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\LG\SCHWIND\DESKTOP\PROJECTS\NORTHERN PASS\NORTHERN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NH\NPNW\WOODSTOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
3.0				SM		FILL: SILTY SAND WITH GRAVEL (SM), brown, moist, loose, fine to coarse grained gravel, fine to medium grained sand, subrounded
4.0	SPT 1	67	50	SM		ALLUVIUM: (SM), dark gray and black, wet, medium to coarse grained, highly weathered, foliated, boulders from 3 to 4 ft
5.0						BEDROCK: Slightly weathered (II), white and black, strong (R4), SCHIST, schistose foliated, biotite rich, moderately fractured
9.0	RC 1	93 (77)				
11.0	RC 2	98 (98)				
13.0	RC 3	100 (100)				
15.0						-unfractured below 9 ft

Bottom of borehole at 15.0 ft.
 Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

BORING NUMBER BH-169

PAGE 1 OF 1

CLIENT PAR Electrical Contractors
PROJECT NUMBER 16004
DATE STARTED 5/27/16 **COMPLETED** 5/27/16
DRILLING CONTRACTOR SW Cole
DRILLING METHOD Hollow Stem Auger
LOGGED BY S. Kearney **CHECKED BY** S. Kearney
NOTES drilled at stake location

PROJECT NAME Northern Pass
PROJECT LOCATION Woodstock, NH
GROUND ELEVATION NA **HOLE SIZE** 6 in
LATITUDE 44.017684 **LONGITUDE** -71.683719
DRILLING EQUIPMENT Diedrich D50 **SPT HAMMER** 140 lb Auto
GROUND WATER LEVEL:
 ∇ **AT TIME OF DRILLING** 7.5ft

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NHNORTHERN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NHN\NPNW\STOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
	GB 1			SM		FILL: SILTY SAND WITH GRAVEL (SM), brown, moist, loose, fine to coarse grained gravel, fine to medium grained sand, subrounded
5	SPT 2		14-38-34 (72)	GP		STREAM TERRACE DEPOSITS: POORLY GRADED GRAVEL (GP), with boulders, and cobbles, grayish brown, moist, very dense, coarse grained gravel, subrounded
10	SPT 3	100	4-2-14 (16)	SP-SM		STREAM TERRACE DEPOSITS: POORLY GRADED SAND WITH SILT (SP-SM), brown, wet, medium dense, medium to coarse grained
15	SPT 4	0	50/1"	SP-SM		-boulders and cobbles from 14 to 15 ft

Bottom of borehole at 15.0 ft.
 Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

BORING NUMBER BH-171

PAGE 1 OF 1

CLIENT PAR Electrical Contractors
PROJECT NUMBER 16004
DATE STARTED 6/27/16 **COMPLETED** 6/27/16
DRILLING CONTRACTOR SW Cole
DRILLING METHOD Hollow Stem Auger
LOGGED BY J. Melton **CHECKED BY** S. Kearney
NOTES drilled at stake location

PROJECT NAME Northern Pass
PROJECT LOCATION Woodstock, NH
GROUND ELEVATION NA **HOLE SIZE** 6 in
LATITUDE 44.012651 **LONGITUDE** -71.685317
DRILLING EQUIPMENT Diedrich D50 **SPT HAMMER** 140 lb Auto
GROUND WATER LEVEL:
∇ AT TIME OF DRILLING 8.0ft

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/4/16 12:05 - C:\USERS\ILGSCHWIND\DESKTOP\ISW-GW.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
5	SPT 1	72	12-15-16 (31)	GM		FILL: GRAVEL (GM), with sand, with silt, trace organics, dark yellowish brown to dark yellowish brown, moist, medium dense, very fine to fine grained, coarse grained gravel, subangular
10	SPT 2	83	24-13-6 (19)	GM		STREAM TERRACE DEPOSITS: SILTY GRAVEL WITH SAND (GM), pale yellowish brown, moist, dense, fine to coarse grained gravel, fine to medium grained sand, subrounded -becomes wet, medium dense
15	SPT 3	50	1-2-3 (5)	GP		STREAM TERRACE DEPOSITS: POORLY GRADED GRAVEL (GP), trace fines, pale yellowish brown, wet, loose

Bottom of borehole at 15.5 ft.
 Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

BORING NUMBER BH-173

CLIENT PAR Electrical Contractors PROJECT NAME Northern Pass
 PROJECT NUMBER 16004 PROJECT LOCATION Woodstock, NH
 DATE STARTED 5/26/16 COMPLETED 5/26/16 GROUND ELEVATION NA HOLE SIZE 6 in
 DRILLING CONTRACTOR SW Cole LATITUDE 44.007653 LONGITUDE -71.68551
 DRILLING METHOD Hollow Stem Auger DRILLING EQUIPMENT Diedrich D50 SPT HAMMER 140 lb Auto
 LOGGED BY S. Kearney CHECKED BY S. Kearney GROUND WATER LEVEL:
 NOTES drilled at stake location

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\ILGSCHWIND\DESKTOP\PROJECTS\NORTHERN PASS\NORTHERN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NH\NPNW\STOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0				SM		FILL: SILTY SAND WITH GRAVEL (SM), brown, moist, loose, fine to coarse grained gravel, fine to medium grained sand
3.5				SP		STREAM TERRACE DEPOSITS: POORLY GRADED SAND WITH GRAVEL (SP), grayish brown, moist, medium dense, fine to coarse grained gravel, medium to coarse grained sand, subrounded
5	SPT 1	0	50	SP		
10	SPT 2	44	8-14-15 (29)	SP		
15	SPT 3	78	9-6-6 (12)	SP		-becomes light brown, poorly graded, medium grained, without gravel
15.5						

Bottom of borehole at 15.5 ft.
 Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

BORING NUMBER BH-174

PAGE 1 OF 1

CLIENT PAR Electrical Contractors **PROJECT NAME** Northern Pass
PROJECT NUMBER 16004 **PROJECT LOCATION** Woodstock, NH
DATE STARTED 5/26/16 **COMPLETED** 5/26/16 **GROUND ELEVATION** NA **HOLE SIZE** 6 in
DRILLING CONTRACTOR SW Cole **LATITUDE** 44.004322 **LONGITUDE** -71.684681
DRILLING METHOD Solid Stem Auger **DRILLING EQUIPMENT** Diedrich D50 **SPT HAMMER** 140 lb Auto
LOGGED BY S. Kearney **CHECKED BY** S. Kearney **GROUND WATER LEVEL:**
NOTES drilled at stake location

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NHNORTHERN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NHN\NPNW\STOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
3.0				SP		STREAM TERRACE DEPOSITS: POORLY GRADED SAND (SP), trace gravel, brown, moist, loose, fine grained gravel, fine to medium grained sand
5	SPT 1	50	24-33-32 (65)	GP		STREAM TERRACE DEPOSITS: POORLY GRADED GRAVEL WITH SAND (GP), grayish brown, moist, very dense, fine to coarse grained gravel, medium to coarse grained sand, boulders and cobbles present
10	SPT 2	44	16-14-12 (26)	GP		-becomes dense
13.0				SP-SM		STREAM TERRACE DEPOSITS: POORLY GRADED SAND WITH SILT (SP-SM), grayish brown, moist, medium dense, medium grained
15.5	SPT 3	78	4-4-7 (11)			

Bottom of borehole at 15.5 ft.
 Backfilled with auger cuttings



QS
4708 N Barker RD
Spokane Valley, WA 99027
Telephone: 509-892-9409

BORING NUMBER BH-175

PAGE 1 OF 1

CLIENT PAR Electrical Contractors PROJECT NAME Northern Pass

PROJECT NUMBER 16004 PROJECT LOCATION Woodstock, NH

DATE STARTED 5/26/16 COMPLETED 5/26/16 GROUND ELEVATION NA HOLE SIZE 6 in

DRILLING CONTRACTOR SW Cole LATITUDE 44.002428 LONGITUDE -71.684382

DRILLING METHOD Hollow Stem Auger DRILLING EQUIPMENT Diedrich D50 SPT HAMMER 140 lb Auto

LOGGED BY S. Kearney CHECKED BY S. Kearney GROUND WATER LEVEL:
 NOTES ▽ AT TIME OF DRILLING 8.7ft

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\ILGSCHWIN\DESKTOP\PROJECTS\NORTHERN PASS\NORTHERN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NH\NPNW\STOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0				SM		FILL: SILTY SAND WITH GRAVEL (SM), brown, moist, loose, fine to coarse grained gravel, fine to medium grained sand
5	SPT 1	78	5-6-10 (16)	SP		STREAM TERRACE DEPOSITS: POORLY GRADED SAND (SP), trace gravel, brown, moist, medium dense, fine grained gravel, fine to medium grained sand, subrounded
10	SPT 2	56	3-2-3 (5)	ML		STREAM TERRACE DEPOSITS: SILT WITH SAND (ML), trace organics, black, wet, firm, fine to medium grained sand
15	SPT 3	61	2-7-14 (21)	SP-SM		STREAM TERRACE DEPOSITS: POORLY GRADED SAND WITH SILT (SP-SM), trace gravel, grayish brown, wet, medium dense, coarse grained gravel, medium grained sand

Bottom of borehole at 15.5 ft.
Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

BORING NUMBER BH-177

CLIENT PAR Electrical Contractors **PROJECT NAME** Northern Pass
PROJECT NUMBER 16004 **PROJECT LOCATION** Woodstock, NH
DATE STARTED 5/26/16 **COMPLETED** 5/26/16 **GROUND ELEVATION** NA **HOLE SIZE** 6 in
DRILLING CONTRACTOR SW Cole **LATITUDE** 43.997116 **LONGITUDE** -71.683149
DRILLING METHOD Hollow Stem Auger **DRILLING EQUIPMENT** Diedrich D50 **SPT HAMMER** 140 lb Auto
LOGGED BY S. Kearney **CHECKED BY** S. Kearney **GROUND WATER LEVEL:**
NOTES drilled at stake location

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NHNORTHEN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NHNPNW\STOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
5	SPT 1	39	2-2-1 (3)	SM		FILL: SILTY SAND WITH GRAVEL (SM), brown, moist, loose, fine to coarse grained gravel, fine to medium grained sand -becomes very loose, medium to coarse grained sand
6.0						
10	SPT 2	61	6-7-8 (15)	SP-SM		STREAM TERRACE DEPOSITS: POORLY GRADED SAND WITH SILT (SP-SM), brown, wet, medium dense, fine to medium grained
15	SPT 3	67	4-4-8 (12)	SP-SM		

Bottom of borehole at 15.5 ft.
Backfilled with auger cuttings



QS
4708 N Barker RD
Spokane Valley, WA 99027
Telephone: 509-892-9409

BORING NUMBER BH-178

PAGE 1 OF 1

CLIENT PAR Electrical Contractors PROJECT NAME Northern Pass
 PROJECT NUMBER 16004 PROJECT LOCATION Woodstock, NH
 DATE STARTED 5/26/16 COMPLETED 5/26/16 GROUND ELEVATION NA HOLE SIZE 6 in
 DRILLING CONTRACTOR SW Cole LATITUDE 43.994698 LONGITUDE -71.683267
 DRILLING METHOD Hollow Stem Auger DRILLING EQUIPMENT Diedrich D50 SPT HAMMER 140 lb Auto
 LOGGED BY S. Kearney CHECKED BY S. Kearney GROUND WATER LEVEL:
 NOTES _____

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NHNORTHEN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NHNPNWDSTOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
	GB 1			SM		FILL: SILTY SAND (SM), trace gravel, trace organics, brown, moist, loose, fine to coarse grained gravel, fine to medium grained sand
5	SPT 1	50	1-1-1 (2)	SM		-becomes very loose, silt content decreases
				SP-SM		6.0
				SP-SM		STREAM TERRACE DEPOSITS: POORLY GRADED SAND WITH SILT (SP-SM), light brown, moist, medium dense, medium grained
10	SPT 2	94	4-5-5 (10)	SP-SM		
				SP-SM		
15	SPT 3	100	3-3-5 (8)	SP-SM		-becomes loose, moisture content increases
						15.5

Bottom of borehole at 15.5 ft.
Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

BORING NUMBER BH-179

PAGE 1 OF 1

CLIENT PAR Electrical Contractors
PROJECT NUMBER 16004
DATE STARTED 5/26/16 **COMPLETED** 5/26/16
DRILLING CONTRACTOR SW Cole
DRILLING METHOD Hollow Stem Auger
LOGGED BY S. Kearney **CHECKED BY** S. Kearney
NOTES drilled at stake location

PROJECT NAME Northern Pass
PROJECT LOCATION Woodstock, NH
GROUND ELEVATION NA **HOLE SIZE** 6 in
LATITUDE 43.992866 **LONGITUDE** -71.6858
DRILLING EQUIPMENT Diedrich D50 **SPT HAMMER** 140 lb Auto
GROUND WATER LEVEL:

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\ILGSCHWIND\DESKTOP\PROJECTS\NORTHERN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NH\NPNW\STOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
5	SPT 1	44	8-6-8 (14)	SM		FILL: SILTY SAND WITH GRAVEL (SM), orange to brown, wet, medium dense, fine to coarse grained gravel, medium to coarse grained sand, chemical odor noted
7.1						

Bottom of borehole at 7.1 ft.
 Backfilled with bentonite and drill cuttings



QS
4708 N Barker RD
Spokane Valley, WA 99027
Telephone: 509-892-9409

BORING NUMBER BH-180

PAGE 1 OF 1

CLIENT PAR Electrical Contractors
 PROJECT NUMBER 16004
 DATE STARTED 5/26/16 COMPLETED 5/26/16
 DRILLING CONTRACTOR SW Cole
 DRILLING METHOD Solid Stem Auger/Hollow Stem Auger
 LOGGED BY S. Kearney CHECKED BY S. Kearney
 NOTES _____

PROJECT NAME Northern Pass
 PROJECT LOCATION Woodstock, NH
 GROUND ELEVATION NA HOLE SIZE 6 in
 LATITUDE 43.990603 LONGITUDE -71.684598
 DRILLING EQUIPMENT Diedrich D50 SPT HAMMER 140 lb Auto
 GROUND WATER LEVEL: _____

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NHNORTHERN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NHN\NPNW\STOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
				SM		FILL: SILTY SAND WITH GRAVEL (SM), brown, moist, loose, fine to coarse grained gravel, fine to medium grained sand
				SM	2.5	STREAM TERRACE DEPOSITS: SILTY SAND WITH GRAVEL (SM), tan, moist, very dense, fine to coarse grained gravel, fine grained sand, subangular
5	SPT 1	78	24-33-45 (78)			
				SM		-gravel content increases, cobbles and boulders present
10	SPT 2	90	38-50/4"			
				SM		-with fine to medium grained sand, silt content increases
15	SPT 3	67	38-50			
					15.5	

Bottom of borehole at 15.5 ft.
Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

CLIENT PAR Electrical Contractors **PROJECT NAME** Northern Pass
PROJECT NUMBER 16004 **PROJECT LOCATION** Woodstock, NH
DATE STARTED 5/26/16 **COMPLETED** 5/26/16 **GROUND ELEVATION** NA **HOLE SIZE** 6 in
DRILLING CONTRACTOR SW Cole **LATITUDE** 43.988052 **LONGITUDE** -71.683679
DRILLING METHOD Hollow Stem Auger **DRILLING EQUIPMENT** Diedrich D50 **SPT HAMMER** 140 lb Auto
LOGGED BY S. Kearney **CHECKED BY** S. Kearney **GROUND WATER LEVEL:**
NOTES contaminated soil

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\ILGSCHWIND\DESKTOP\PROJECTS\NORTHERN PASS\NHNORTHERN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NHNPNW.DSTOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
5	SPT 1	56	9-9-9 (18)	SM		FILL: SILTY SAND WITH GRAVEL (SM), trace asphalt, brown, moist, loose, fine to coarse grained gravel, fine to medium grained sand, chemical odor noted
8.0						

Bottom of borehole at 8.0 ft.
 Backfilled with bentonite and drill cuttings



QS
4708 N Barker RD
Spokane Valley, WA 99027
Telephone: 509-892-9409

BORING NUMBER BH-182

PAGE 1 OF 1

CLIENT PAR Electrical Contractors PROJECT NAME Northern Pass
 PROJECT NUMBER 16004 PROJECT LOCATION Woodstock, NH
 DATE STARTED 5/26/16 COMPLETED 5/26/16 GROUND ELEVATION NA HOLE SIZE 6 in
 DRILLING CONTRACTOR SW Cole LATITUDE 43.986189 LONGITUDE -71.682756
 DRILLING METHOD Hollow Stem Auger DRILLING EQUIPMENT Diedrich D50 SPT HAMMER 140 lb Auto
 LOGGED BY S. Kearney CHECKED BY S. Kearney GROUND WATER LEVEL:
 NOTES _____

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NHNORTHEN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NHNPNW\WOODSTOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
5	SPT 1	83	3-3-2 (5)	SP-SM		ALLUVIUM: POORLY GRADED SAND WITH SILT (SP-SM), trace gravel, grayish brown, moist, loose, fine grained gravel, medium grained sand
10	SPT 2	78	3-4-5 (9)	SP-SM		-gravelly zone encountered
15	SPT 3	78	6-6-8 (14)	SP-SM		-becomes medium dense, fine to medium grained sand
15.5						

Bottom of borehole at 15.5 ft.
Backfilled with auger cuttings



QS
4708 N Barker RD
Spokane Valley, WA 99027
Telephone: 509-892-9409

BORING NUMBER BH-183

CLIENT PAR Electrical Contractors PROJECT NAME Northern Pass
 PROJECT NUMBER 16004 PROJECT LOCATION Woodstock, NH
 DATE STARTED 5/26/16 COMPLETED 5/26/16 GROUND ELEVATION NA HOLE SIZE 6 in
 DRILLING CONTRACTOR SW Cole LATITUDE 43.983027 LONGITUDE -71.682339
 DRILLING METHOD Hollow Stem Auger DRILLING EQUIPMENT Diedrich D50 SPT HAMMER 140 lb Auto
 LOGGED BY S. Kearney CHECKED BY S. Kearney GROUND WATER LEVEL:
 NOTES drilled at stake location

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NHNORTHEN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NHNPNWDSTOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
				SM		FILL: SILTY SAND (SM), trace gravel, brown, moist, loose, fine to coarse grained gravel, fine to medium grained sand
				SP-SM	2.0	ALLUVIUM: POORLY GRADED SAND WITH SILT (SP-SM), grayish brown, moist, loose, fine grained gravel, medium grained sand
5	SPT 1	89	5-4-5 (9)			
				SP-SM		-becomes medium dense, silt content increases
10	SPT 2	78	4-5-6 (11)			
				SP-SM		
15	SPT 3	78	4-5-5 (10)			
				SP-SM	15.5	

Bottom of borehole at 15.5 ft.
Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

BORING NUMBER BH-184

CLIENT PAR Electrical Contractors **PROJECT NAME** Northern Pass
PROJECT NUMBER 16004 **PROJECT LOCATION** Woodstock, NH
DATE STARTED 5/25/16 **COMPLETED** 5/25/16 **GROUND ELEVATION** NA **HOLE SIZE** 4.5 in
DRILLING CONTRACTOR SW Cole **LATITUDE** 43.981139 **LONGITUDE** -71.683484
DRILLING METHOD Hollow Stem Auger **DRILLING EQUIPMENT** Diedrich D50 **SPT HAMMER** 140 lb Auto
LOGGED BY S. Kearney **CHECKED BY** S. Kearney **GROUND WATER LEVEL:**
NOTES _____

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NHNORTHEN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NHNPNWDSTOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0				SM		FILL: SILTY SAND WITH GRAVEL (SM), brown, moist, loose, fine to coarse grained gravel, fine to medium grained sand, subrounded
5	SPT 1	56	4-4-3 (7)	SP-SM		ALLUVIUM: POORLY GRADED SAND WITH SILT (SP-SM), light brown, moist, loose, fine grained gravel, medium grained sand
10	SPT 2	89	3-3-4 (7)	SP-SM		-becomes grayish brown, without gravel
15	SPT 3	83	4-5-6 (11)	SP-SM		

Bottom of borehole at 15.5 ft.
Backfilled with auger cuttings



QS
4708 N Barker RD
Spokane Valley, WA 99027
Telephone: 509-892-9409

BORING NUMBER BH-185

PAGE 1 OF 1

CLIENT PAR Electrical Contractors
PROJECT NUMBER 16004
DATE STARTED 5/25/16 **COMPLETED** 5/25/16
DRILLING CONTRACTOR SW Cole
DRILLING METHOD SSA/Wireline Coring / NQ Size/Series 8
LOGGED BY S. Kearney **CHECKED BY** S. Kearney
NOTES drilled at stake location

PROJECT NAME Northern Pass
PROJECT LOCATION Woodstock, NH
GROUND ELEVATION NA **HOLE SIZE** 6 in
LATITUDE 43.978168 **LONGITUDE** -71.685195
DRILLING EQUIPMENT Diedrich D50 **SPT HAMMER** 140 lb Auto
GROUND WATER LEVEL:

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:38 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NORTHERN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NH\NPNWDSTOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
3.0				SM		FILL: SILTY SAND (SM), trace gravel, brown, moist, loose, fine to medium grained
5	SPT 1	20	50/5"			STREAM TERRACE DEPOSITS: brown, medium to coarse grained, highly weathered, massive, medium weak gneiss with schist zones boulder -boulders and cobbles present
10	SPT 2	20	50/5"			
11.3						BEDROCK: Fresh (I), dark gray, strong (R4), SCHIST, slightly fractured, foliated
15	RC 1	100 (100)				

Bottom of borehole at 15.0 ft.
Backfilled with auger cuttings



QS
4708 N Barker RD
Spokane Valley, WA 99027
Telephone: 509-892-9409

BORING NUMBER BH-186

PAGE 1 OF 1

CLIENT PAR Electrical Contractors PROJECT NAME Northern Pass
 PROJECT NUMBER 16004 PROJECT LOCATION Woodstock, NH
 DATE STARTED 5/25/16 COMPLETED 5/25/16 GROUND ELEVATION NA HOLE SIZE 6 in
 DRILLING CONTRACTOR SW Cole LATITUDE 43.976069 LONGITUDE -71.684251
 DRILLING METHOD Solid Stem Auger DRILLING EQUIPMENT Diedrich D50 SPT HAMMER 140 lb Auto
 LOGGED BY S. Kearney CHECKED BY S. Kearney GROUND WATER LEVEL:
 NOTES drilled at stake location

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NHNORTHEN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NHN\NPNW\STOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0				SM		FILL: SILTY SAND (SM), trace gravel, dark brown, moist, loose, fine to coarse grained gravel, fine to medium grained sand
5	SPT 1	100	5-8-12 (20)	SP-SM		STREAM TERRACE DEPOSITS: POORLY GRADED SAND WITH SILT (SP-SM), dark brown, moist, medium dense, medium to coarse grained
10	SPT 2	72	12-18-26 (44)	SP-SM		-becomes brown to orange, poorly graded, fine to coarse grained gravel, iron oxide staining, fragments of highly weathered granitic rock
14.8	SPT 3	0	18-50/4"	SP-SM		

Bottom of borehole at 14.8 ft.
Backfilled with auger cuttings



QS
4708 N Barker RD
Spokane Valley, WA 99027
Telephone: 509-892-9409

CLIENT PAR Electrical Contractors
PROJECT NUMBER 16004
DATE STARTED 6/24/16 **COMPLETED** 6/24/16
DRILLING CONTRACTOR SW Cole
DRILLING METHOD Hollow Stem Auger/Mud Rotary
LOGGED BY J. Melton **CHECKED BY** S. Kearney
NOTES drilled 5.3 ft from digsafe box

PROJECT NAME Northern Pass
PROJECT LOCATION Woodstock, NH
GROUND ELEVATION NA **HOLE SIZE** 6 in
LATITUDE 43.97037 **LONGITUDE** -71.685067
DRILLING EQUIPMENT Diedrich D50 **SPT HAMMER** 140 lb Auto
GROUND WATER LEVEL:

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NORTHERN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NH\NINPW\DSTOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
0 - 3.0				GM		FILL: GRAVEL (GM), with sand, with silt, trace organics, dusky yellowish brown, dry to damp, loose, very fine to fine grained, medium to coarse grained gravel, subangular
3.0 - 7.0						STREAM TERRACE DEPOSITS: BOULDERS, and cobbles, granitic
5.0	SPT 1	0	50/1"			
7.0 - 10.0				SM		TILL: SILTY SAND (SM), moderate yellowish brown, moist, dense, very fine to fine grained, iron oxide staining
10.0	SPT 2	72	17-27-38 (65)			
10.0 - 15.5				SM		-becomes pale yellowish brown, with lenses of light olive gray clay
15.0	SPT 3	72	14-25-28 (53)			
15.5						

Bottom of borehole at 15.5 ft.
Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

BORING NUMBER BH-189

PAGE 1 OF 1

CLIENT PAR Electrical Contractors
PROJECT NUMBER 16004
DATE STARTED 6/24/16 **COMPLETED** 6/24/16
DRILLING CONTRACTOR SW Cole
DRILLING METHOD HSA/Wireline Coring / NQ Size/Series 8
LOGGED BY J. Melton **CHECKED BY** S. Kearney
NOTES _____

PROJECT NAME Northern Pass
PROJECT LOCATION Woodstock, NH
GROUND ELEVATION NA **HOLE SIZE** 6 in
LATITUDE 43.967801 **LONGITUDE** -71.685666
DRILLING EQUIPMENT Diedrich D50 **SPT HAMMER** 140 lb Auto
GROUND WATER LEVEL: _____

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/4/16 12:05 - C:\USERS\ILGSCHWIN\DESKTOP\ISW-GW.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
5	SPT 1	50	6-3-3 (6)	GM		FILL: GRAVEL (GM), with sand, with silt, trace organics, dusky brown to moderate yellowish brown, dry, loose, very fine to fine grained, medium to coarse grained gravel, angular to subangular
6.5				SM		STREAM TERRACE DEPOSITS: SILTY SAND WITH GRAVEL (SM), pale yellowish brown, dry, medium dense, fine grained, fine to coarse grained gravel, subangular
10	SPT 2	72	5-9-9 (18)			
13.0						
15	RC 1	85 (85)				BEDROCK: Fresh (I), medium light gray and greenish gray, medium light gray (N6) and greenish gray (5GY 6/1), medium to coarse grained, strong (R4), GRANITE -composition becomes intermediate

Bottom of borehole at 15.0 ft.
 Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

BORING NUMBER BH-190

CLIENT PAR Electrical Contractors **PROJECT NAME** Northern Pass
PROJECT NUMBER 16004 **PROJECT LOCATION** Woodstock, NH
DATE STARTED 5/25/16 **COMPLETED** 5/25/16 **GROUND ELEVATION** NA **HOLE SIZE** 6 in
DRILLING CONTRACTOR SW Cole **LATITUDE** 43.965458 **LONGITUDE** -71.686172
DRILLING METHOD Hollow Stem Auger **DRILLING EQUIPMENT** Diedrich D50 **SPT HAMMER** 140 lb Auto
LOGGED BY S. Kearney **CHECKED BY** S. Kearney **GROUND WATER LEVEL:**
NOTES drilled at stake location

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 16:00 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NHNORTHEN PASS TRENCH COMPLETED LOGS\WOODSTOCK_NHNPNWDSTOCK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
3.0				SM		FILL: SILTY SAND WITH GRAVEL (SM), brown, moist, loose, fine to coarse grained gravel, fine to medium grained sand, subrounded
5	SPT 1	50	7-9-9 (18)	SP		STREAM TERRACE DEPOSITS: POORLY GRADED SAND WITH GRAVEL (SP), light brown, moist, medium dense, fine to coarse grained gravel, medium to coarse grained sand, subrounded
10	SPT 2	56	6-10-10 (20)	SP		
15	SPT 3	72	13-16-23 (39)	SP		-gravel content increases

Bottom of borehole at 15.5 ft.
 Backfilled with auger cuttings



QS
4708 N Barker RD
Spokane Valley, WA 99027
Telephone: 509-892-9409

BORING NUMBER BH-191

PAGE 1 OF 1

CLIENT PAR Electrical Contractors PROJECT NAME Northern Pass
 PROJECT NUMBER 16004 PROJECT LOCATION Thornton, NH
 DATE STARTED 5/25/16 COMPLETED 5/25/16 GROUND ELEVATION NA HOLE SIZE 6 in
 DRILLING CONTRACTOR SW Cole LATITUDE 43.963016 LONGITUDE -71.684479
 DRILLING METHOD Hollow Stem Auger DRILLING EQUIPMENT Diedrich D50 SPT HAMMER 140 lb Auto
 LOGGED BY S. Kearney CHECKED BY S. Kearney GROUND WATER LEVEL:
 NOTES drilled at stake location

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 11:53 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NORTHERN PASS TRENCH COMPLETED LOGS\THORNTON_NH\NHP191.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
5	SPT 1	83	5-5-7 (12)	SP-SM		STREAM TERRACE DEPOSITS: POORLY GRADED SAND WITH SILT (SP-SM), light brown, moist, medium dense, medium to coarse grained
10	SPT 2	89	8-9-9 (18)	SP-SM		-becomes grayish brown, fine to medium grained sand
15	SPT 3	83	8-10-12 (22)	SP-SM		-with medium to coarse grained sand

Bottom of borehole at 15.5 ft.
Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

BORING NUMBER BH-193

PAGE 1 OF 1

CLIENT <u>PAR Electrical Contractors</u>	PROJECT NAME <u>Northern Pass</u>
PROJECT NUMBER <u>16004</u>	PROJECT LOCATION <u>Thornton, NH</u>
DATE STARTED <u>6/24/16</u> COMPLETED <u>6/24/16</u>	GROUND ELEVATION <u>NA</u> HOLE SIZE <u>6 in</u>
DRILLING CONTRACTOR <u>SW Cole</u>	LATITUDE <u>43.957186</u> LONGITUDE <u>-71.679561</u>
DRILLING METHOD <u>Hollow Stem Auger</u>	DRILLING EQUIPMENT <u>Diedrich D50</u> SPT HAMMER <u>140 lb Auto</u>
LOGGED BY <u>J. Melton</u> CHECKED BY <u>S. Kearney</u>	GROUND WATER LEVEL:
NOTES _____	

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/4/16 12:05 - C:\USERS\ILGSCHWIN\DESKTOP\ISW-GW.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
				GM		FILL: GRAVEL (GM), with sand, with silt, trace organics, pale brown, dry, loose
				SP-SM		ALLUVIUM: POORLY GRADED SAND WITH SILT (SP-SM), grayish orange and pale yellowish brown, damp, dense, fine grained, silt lenses
5	SPT 1	94	15-21-27 (48)			
				SP-SM		-becomes moderate yellowish brown, loose
10	SPT 2	83	4-5-4 (9)			
				GP-GM		ALLUVIUM: POORLY GRADED GRAVEL (GP-GM), light brown, dry, loose, medium to very coarse grained gravel, angular to subangular, fine grained matrix
15	SPT 3	28	7-6-5 (11)			

Bottom of borehole at 15.5 ft.
Backfilled with auger cuttings



QS
4708 N Barker RD
Spokane Valley, WA 99027
Telephone: 509-892-9409

BORING NUMBER BH-194

CLIENT PAR Electrical Contractors PROJECT NAME Northern Pass
 PROJECT NUMBER 16004 PROJECT LOCATION Thornton, NH
 DATE STARTED 5/25/16 COMPLETED 5/25/16 GROUND ELEVATION NA HOLE SIZE 6 in
 DRILLING CONTRACTOR SW Cole LATITUDE 43.954718 LONGITUDE -71.680359
 DRILLING METHOD Hollow Stem Auger DRILLING EQUIPMENT Diedrich D50 SPT HAMMER 140 lb Auto
 LOGGED BY S. Kearney CHECKED BY S. Kearney GROUND WATER LEVEL:
 NOTES drilled at stake location ∇ AT TIME OF DRILLING 13.0ft

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 11:53 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NORTH PASS TRENCH COMPLETED LOGS\THORNTON_NH\NHP194.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
				SM		FILL: SILTY SAND (SM), trace gravel, trace organics, brown to gray, moist, loose, fine to medium grained gravel
				SM		STREAM TERRACE DEPOSITS: SILTY SAND (SM), tan, moist, medium dense, medium grained
5	SPT 1	67	6-11-11 (22)			
				SP		STREAM TERRACE DEPOSITS: POORLY GRADED SAND (SP), trace gravel, brown, moist, medium dense, fine to coarse grained gravel, medium to coarse grained sand, subrounded
10	SPT 2	72	6-11-14 (25)			
				SP		-gravel content increases
15	SPT 3	44	11-13-21 (34)			
15.5						

Bottom of borehole at 15.5 ft.
Backfilled with auger cuttings



QS
4708 N Barker RD
Spokane Valley, WA 99027
Telephone: 509-892-9409

BORING NUMBER BH-195

PAGE 1 OF 1

CLIENT PAR Electrical Contractors PROJECT NAME Northern Pass
 PROJECT NUMBER 16004 PROJECT LOCATION Thornton, NH
 DATE STARTED 5/25/16 COMPLETED 5/25/16 GROUND ELEVATION NA HOLE SIZE 6 in
 DRILLING CONTRACTOR SW Cole LATITUDE 43.952331 LONGITUDE -71.681529
 DRILLING METHOD Hollow Stem Auger DRILLING EQUIPMENT Diedrich D50 SPT HAMMER 140 lb Auto
 LOGGED BY S. Kearney CHECKED BY S. Kearney GROUND WATER LEVEL:
 NOTES drilled at stake location ∇ AT TIME OF DRILLING 7.0ft

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 11:53 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NHNORTHERN PASS TRENCH COMPLETED LOGS\THORNTON_NHNHPHTR.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
3.0				SM		FILL: SILTY SAND WITH GRAVEL (SM), trace organics, dark brown, moist, loose, fine to coarse grained gravel, fine to medium grained sand, subangular
5	SPT 1	67	27-33-41 (74)	SP		STREAM TERRACE DEPOSITS: POORLY GRADED SAND WITH GRAVEL (SP), trace cobbles, brown to gray, moist, very dense, fine to coarse grained gravel, fine to coarse grained sand, subrounded
9.0				SM		STREAM TERRACE DEPOSITS: SILTY SAND WITH GRAVEL (SM), brown, wet, dense, fine to coarse grained gravel, fine to medium grained sand, subangular
15	SPT 3	89	2-2-3 (5)	SM		-becomes loose, gray, fine grained, without gravel, micaceous, wet
15.5						

Bottom of borehole at 15.5 ft.
Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

BORING NUMBER BH-196

CLIENT PAR Electrical Contractors **PROJECT NAME** Northern Pass
PROJECT NUMBER 16004 **PROJECT LOCATION** Thornton, NH
DATE STARTED 5/24/16 **COMPLETED** 5/24/16 **GROUND ELEVATION** NA **HOLE SIZE** 6 in
DRILLING CONTRACTOR SW Cole **LATITUDE** 43.94999 **LONGITUDE** -71.680246
DRILLING METHOD Hollow Stem Auger **DRILLING EQUIPMENT** Diedrich D50 **SPT HAMMER** 140 lb Auto
LOGGED BY S. Kearney **CHECKED BY** S. Kearney **GROUND WATER LEVEL:**
NOTES drilled at stake location ∇ **AT TIME OF DRILLING** 8.0ft

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 11:53 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NORTHERN PASS TRENCH COMPLETED LOGS\THORNTON_NH\NHP1THOR.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
				SM		FILL: SILTY SAND WITH GRAVEL (SM), trace cobbles, brown, moist, loose, fine to coarse grained gravel, fine to medium grained sand, rounded
3.0				ML		ORGANIC DEPOSITS: SANDY SILT (ML), trace organics, dark brown, moist, soft, fine to medium grained sand
5	SPT 1	78	2-1-3 (4)			
				SM		ALLUVIUM: SILTY SAND (SM), trace organics, dark brown and gray, wet, very loose, fine grained gravel
5.5						∇
10	SPT 2	100	0-0-1 (1)	SM		
				SM		-becomes tan, silt content decreases, micaceous
15	SPT 3	94	4-10-13 (23)	SM		
15.5						

Bottom of borehole at 15.5 ft.
 Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

BORING NUMBER BH-197

PAGE 1 OF 1

CLIENT PAR Electrical Contractors **PROJECT NAME** Northern Pass
PROJECT NUMBER 16004 **PROJECT LOCATION** Thornton, NH
DATE STARTED 5/24/16 **COMPLETED** 5/24/16 **GROUND ELEVATION** NA **HOLE SIZE** 6 in
DRILLING CONTRACTOR SW Cole **LATITUDE** 43.94846 **LONGITUDE** -71.677571
DRILLING METHOD HSA/Wireline Coring / NQ Size/Series 8 **DRILLING EQUIPMENT** Diedrich D50 **SPT HAMMER** 140 lb Auto
LOGGED BY S. Kearney **CHECKED BY** S. Kearney **GROUND WATER LEVEL:**
NOTES drilled at stake location

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/03/16 14:52 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NINORTHERN PASS TRENCH COMPLETED LOGS\THORNTON_NH\NINPTHOR.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
3.5				SM		FILL: SILTY SAND WITH GRAVEL (SM), brown, moist, loose, fine to coarse grained gravel, fine to medium grained sand, subrounded
5	SPT 1	100	50/5"			SAPROLITE: decomposed schist
7.3						BEDROCK: Fresh (I), dark gray and white, strong (R4), GNEISS, biotite rich, with schistose zone
10	RC 1	100 (100)				
15	RC 2	100 (100)				
15.0						

Bottom of borehole at 15.0 ft.
 Backfilled with auger cuttings



QS
 4708 N Barker RD
 Spokane Valley, WA 99027
 Telephone: 509-892-9409

BORING NUMBER BH-199

PAGE 1 OF 1

CLIENT PAR Electrical Contractors **PROJECT NAME** Northern Pass
PROJECT NUMBER 16004 **PROJECT LOCATION** Thornton, NH
DATE STARTED 5/24/16 **COMPLETED** 5/24/16 **GROUND ELEVATION** NA **HOLE SIZE** 6 in
DRILLING CONTRACTOR SW Cole **LATITUDE** 43.943589 **LONGITUDE** -71.678624
DRILLING METHOD Hollow Stem Auger **DRILLING EQUIPMENT** Diedrich D50 **SPT HAMMER** 140 lb Auto
LOGGED BY S. Kearney **CHECKED BY** S. Kearney **GROUND WATER LEVEL:**
NOTES drilled at stake location

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 11:53 - C:\USERS\ILGSCHWIND\DESKTOP\PROJECTS\NORTHERN PASS NH\NORTHERN PASS TRENCH COMPLETED LOGS\THORNTON_NH\NPTHOR.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
	GB 1			SM		FILL: SILTY SAND WITH GRAVEL (SM), dark brown, moist, loose, fine to medium grained gravel, fine to coarse grained sand, subrounded
5	SPT 2	6	6-5-10 (15)	SP		ALLUVIUM: POORLY GRADED SAND WITH GRAVEL (SP), brown, moist, medium dense, fine to coarse grained gravel, fine to medium grained sand, subrounded
10	SPT 3	83	6-7-7 (14)	SM		ALLUVIUM: SILTY SAND (SM), tan, moist, medium dense, fine grained
15	SPT 4	94	5-6-7 (13)	SM		

Bottom of borehole at 15.5 ft.
 Backfilled with auger cuttings



QS
4708 N Barker RD
Spokane Valley, WA 99027
Telephone: 509-892-9409

BORING NUMBER BH-200

PAGE 1 OF 1

CLIENT PAR Electrical Contractors PROJECT NAME Northern Pass
 PROJECT NUMBER 16004 PROJECT LOCATION Thornton, NH
 DATE STARTED 5/24/16 COMPLETED 5/24/16 GROUND ELEVATION NA HOLE SIZE 6 in
 DRILLING CONTRACTOR SW Cole LATITUDE 43.940497 LONGITUDE -71.678593
 DRILLING METHOD Solid Stem Auger/Hollow Stem Auger DRILLING EQUIPMENT Diedrich D50 SPT HAMMER 140 lb Auto
 LOGGED BY S. Kearney CHECKED BY S. Kearney GROUND WATER LEVEL:
 NOTES drilled at stake location ∇ AT TIME OF DRILLING 12.5ft

GENERAL BH / TP / WELL - GINT STD US LAB.GPJ - 10/3/16 11:53 - C:\USERS\LGSC\HWIN\DESKTOP\PROJECTS\NORTHERN PASS\NINORTHERN PASS TRENCH COMPLETED LOGS\THORNTON_NH\NINPTHR.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
	GB 1			SC		FILL: CLAYEY SAND (SC), trace gravel, trace organics, dark brown, moist, loose, fine to medium grained sand, subrounded
3.5						
5	SPT 2	78	2-3-6 (9)	SM		STREAM TERRACE DEPOSITS: SILTY SAND (SM), light brown, wet, loose, fine to medium grained gravel, coarse sand in bottom 2 inches
						-granitic boulder from 7.7 to 9 ft
9.0						
10	SPT 3	50	11-13-11 (24)	GP		STREAM TERRACE DEPOSITS: POORLY GRADED SANDY GRAVEL (GP), gray, fine to coarse grained gravel, fine to coarse grained sand, subangular
12.5						∇
				SM		STREAM TERRACE DEPOSITS: SILTY SAND (SM), gray, wet, loose, fine grained
15	SPT 4	44	4-3-3 (6)			
15.5						

Bottom of borehole at 15.5 ft.
Backfilled with auger cuttings