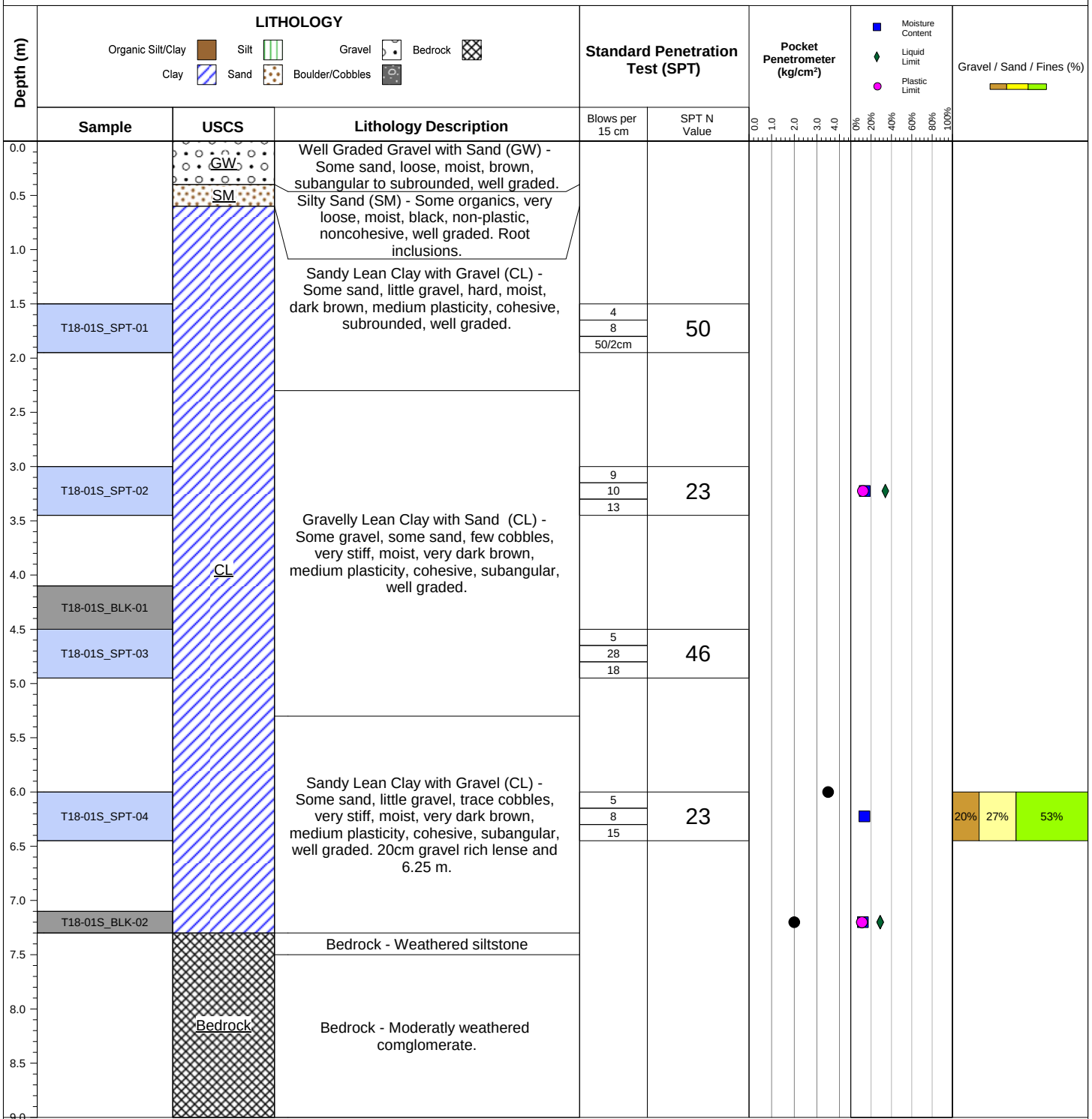
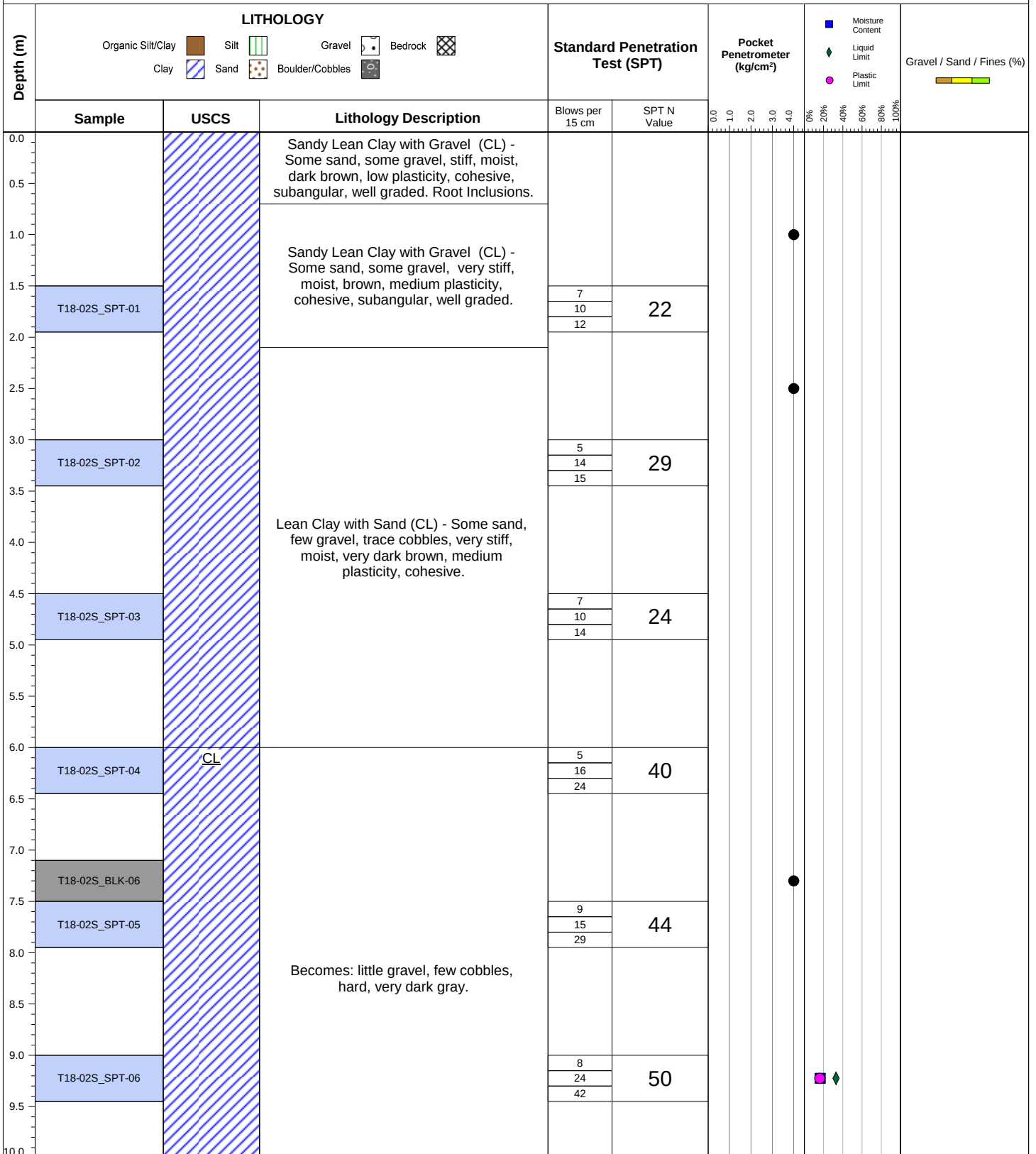
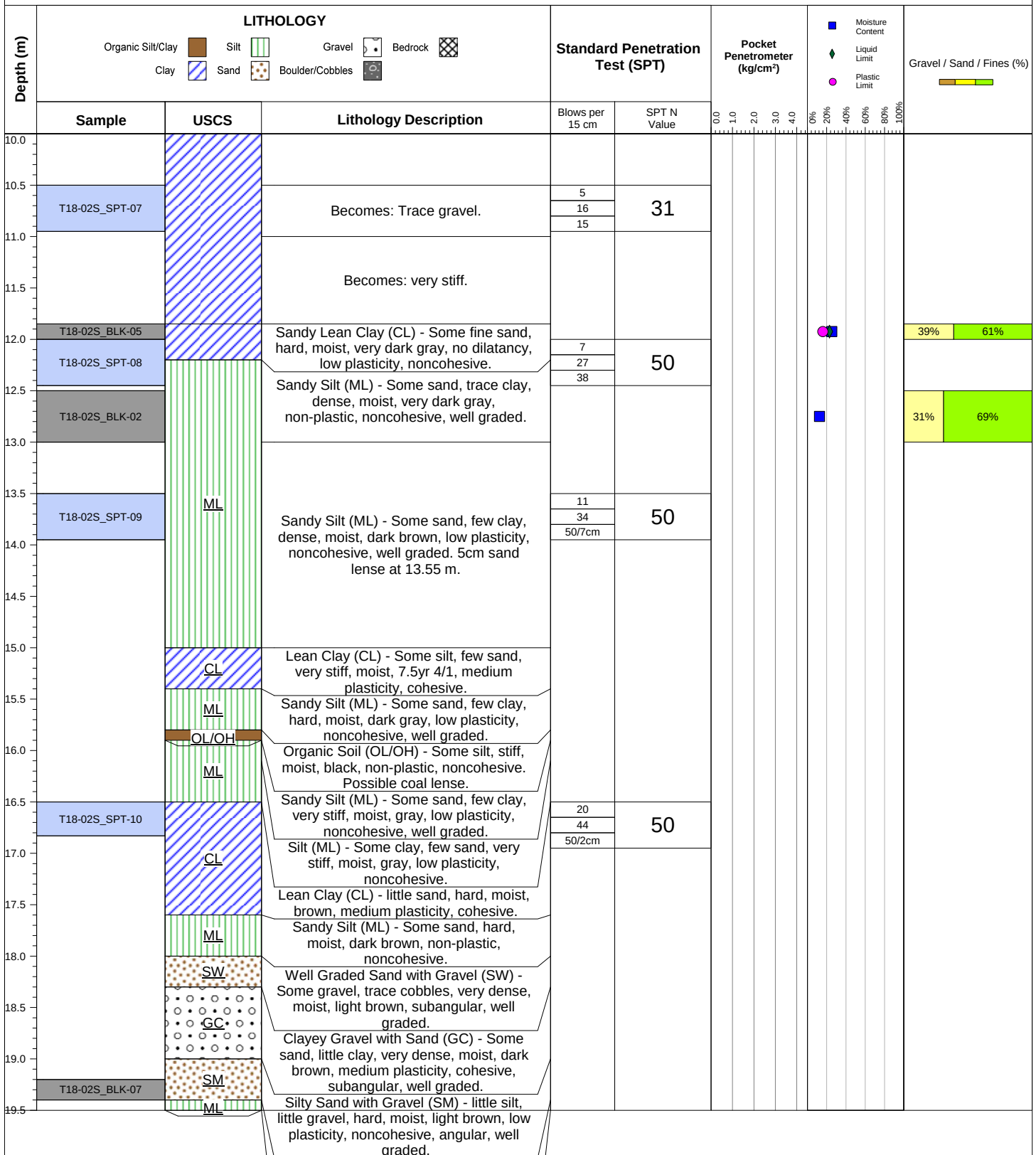
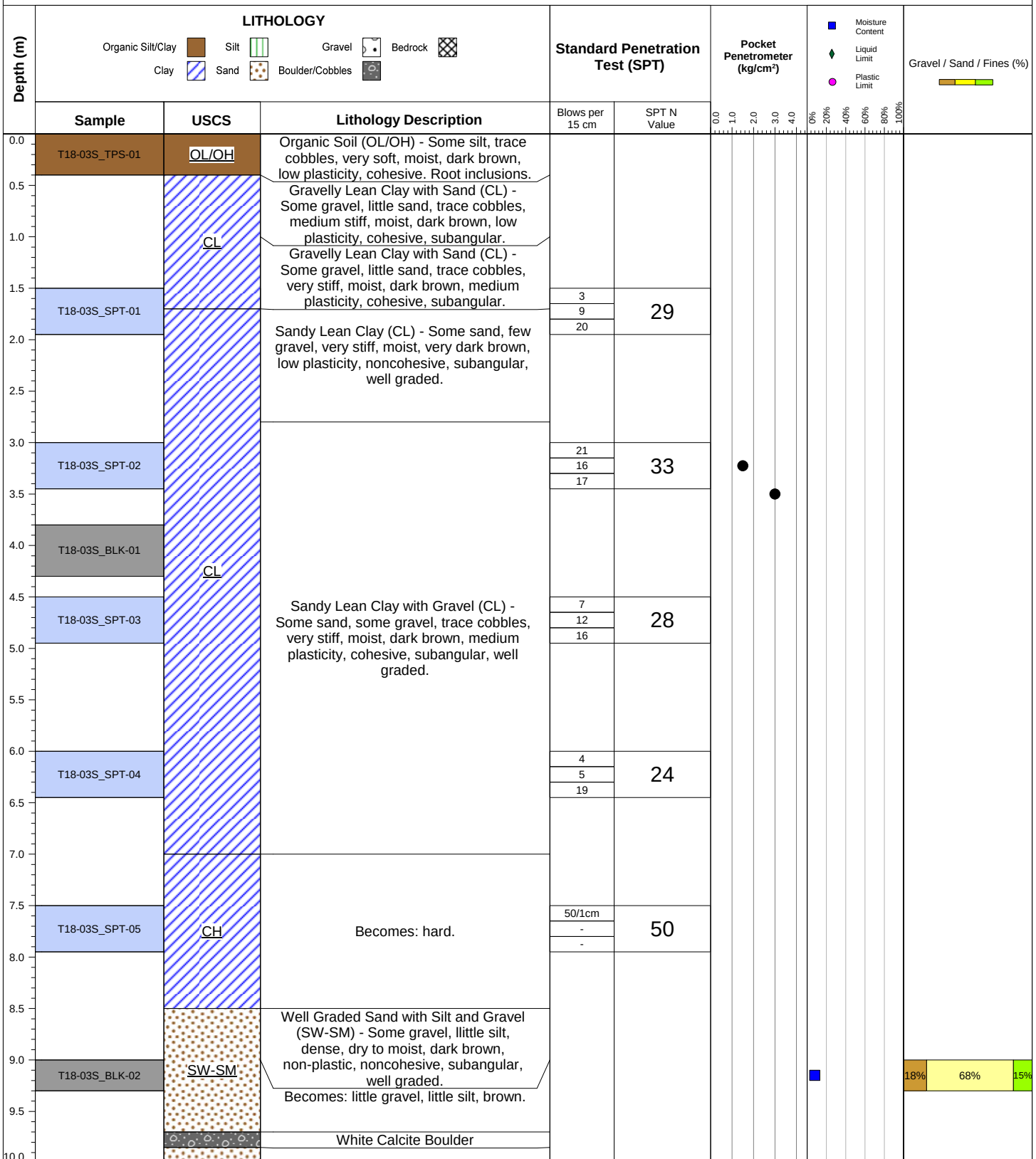


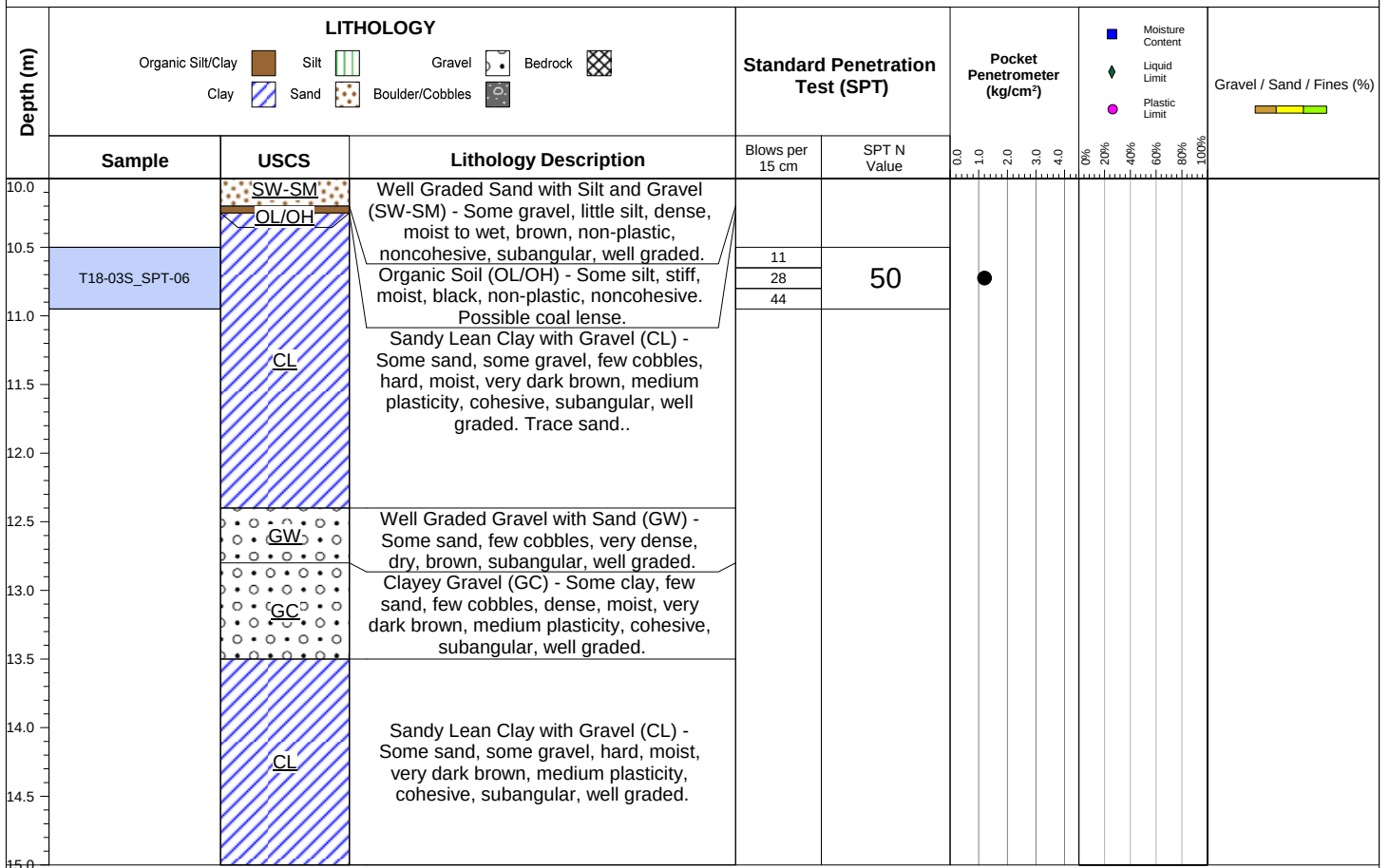
Appendix A – Soil Logs

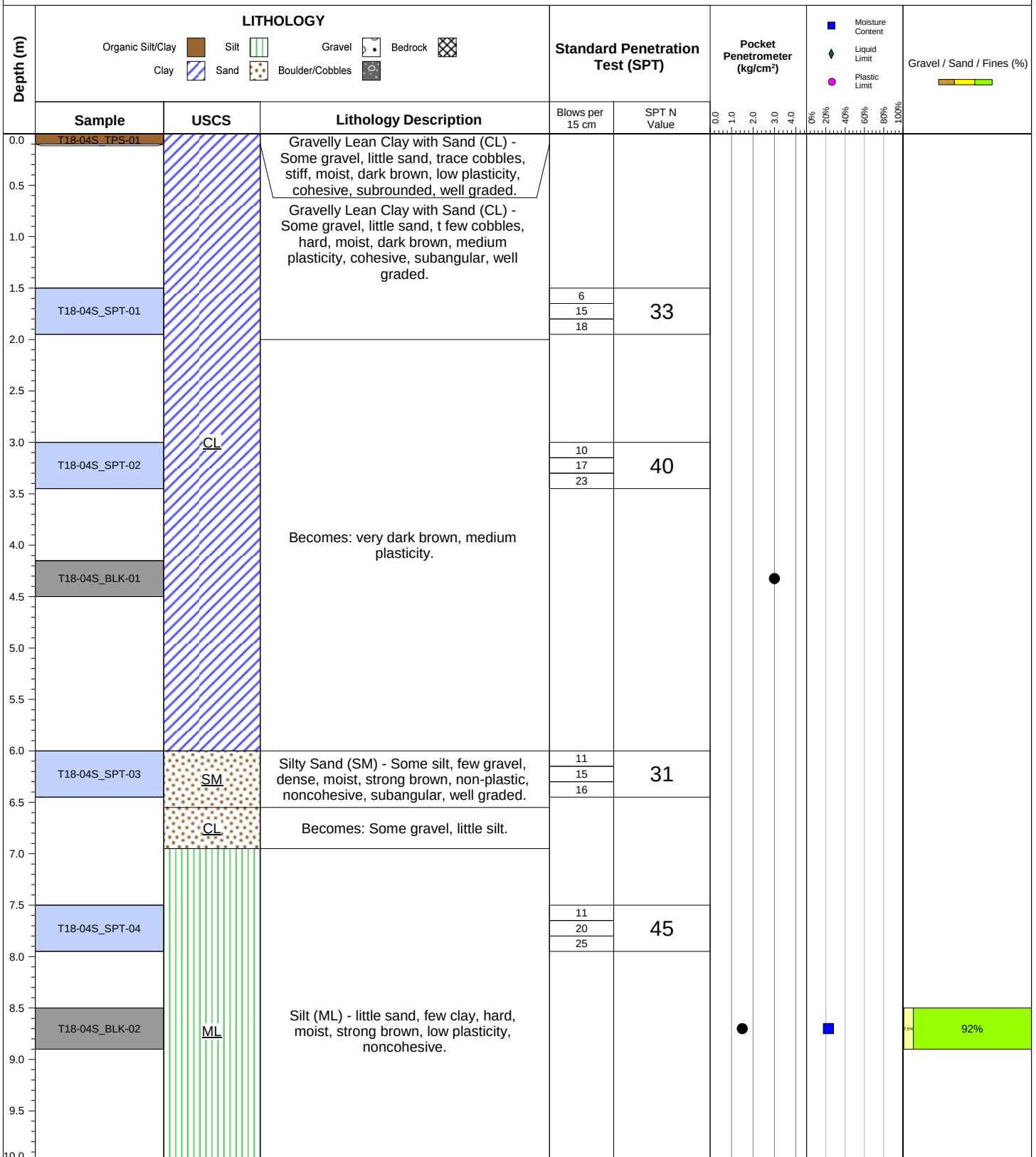


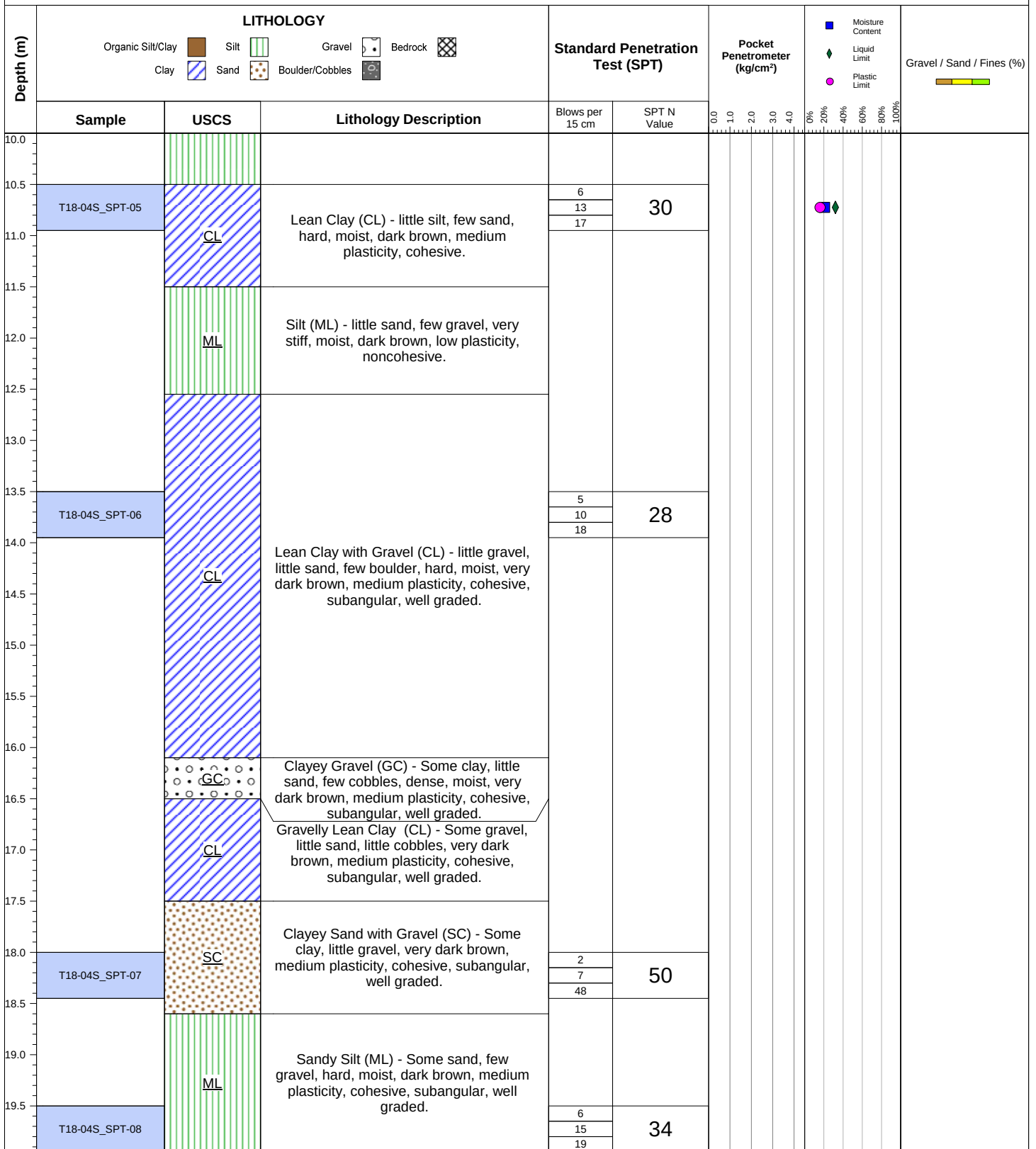


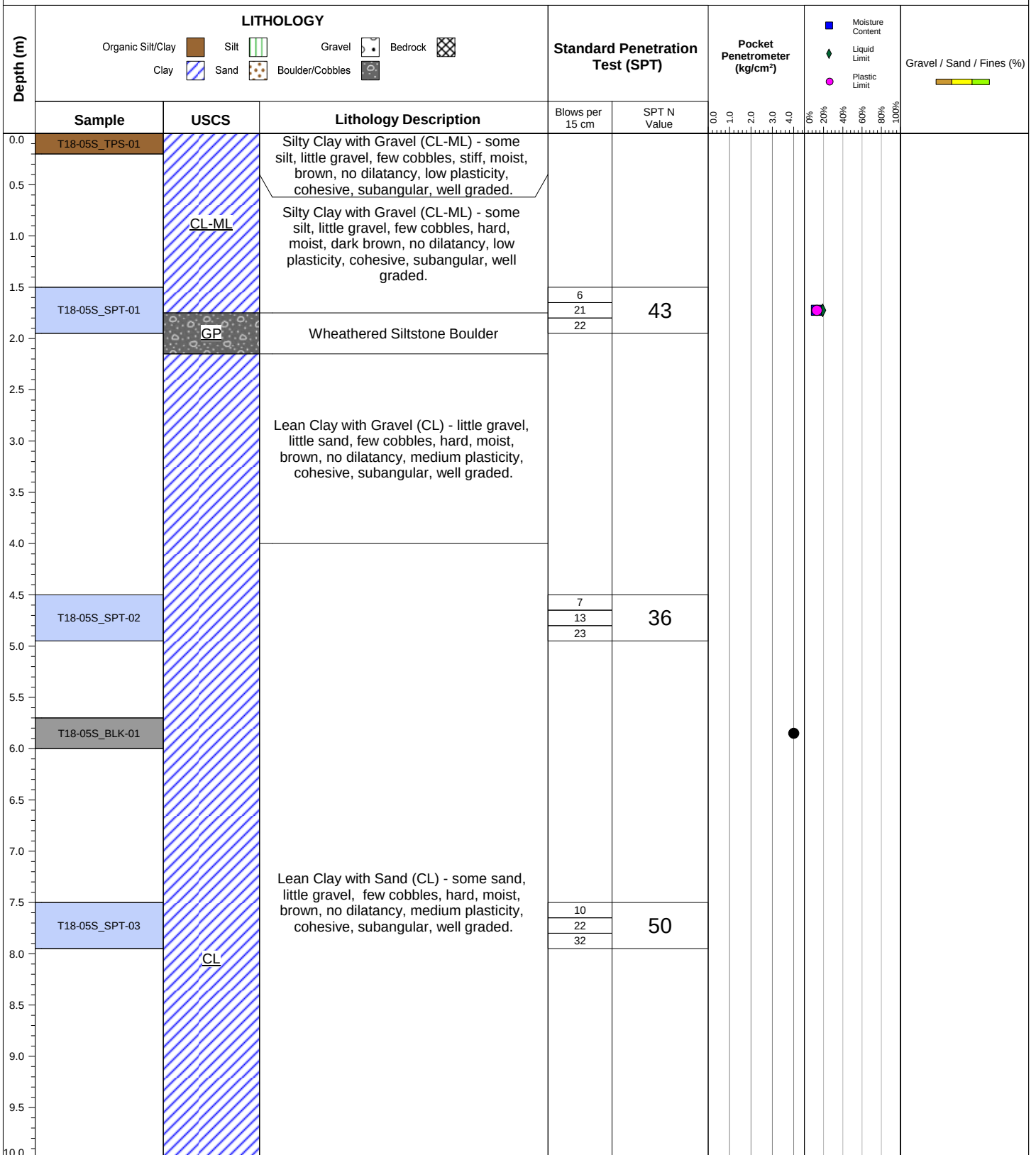






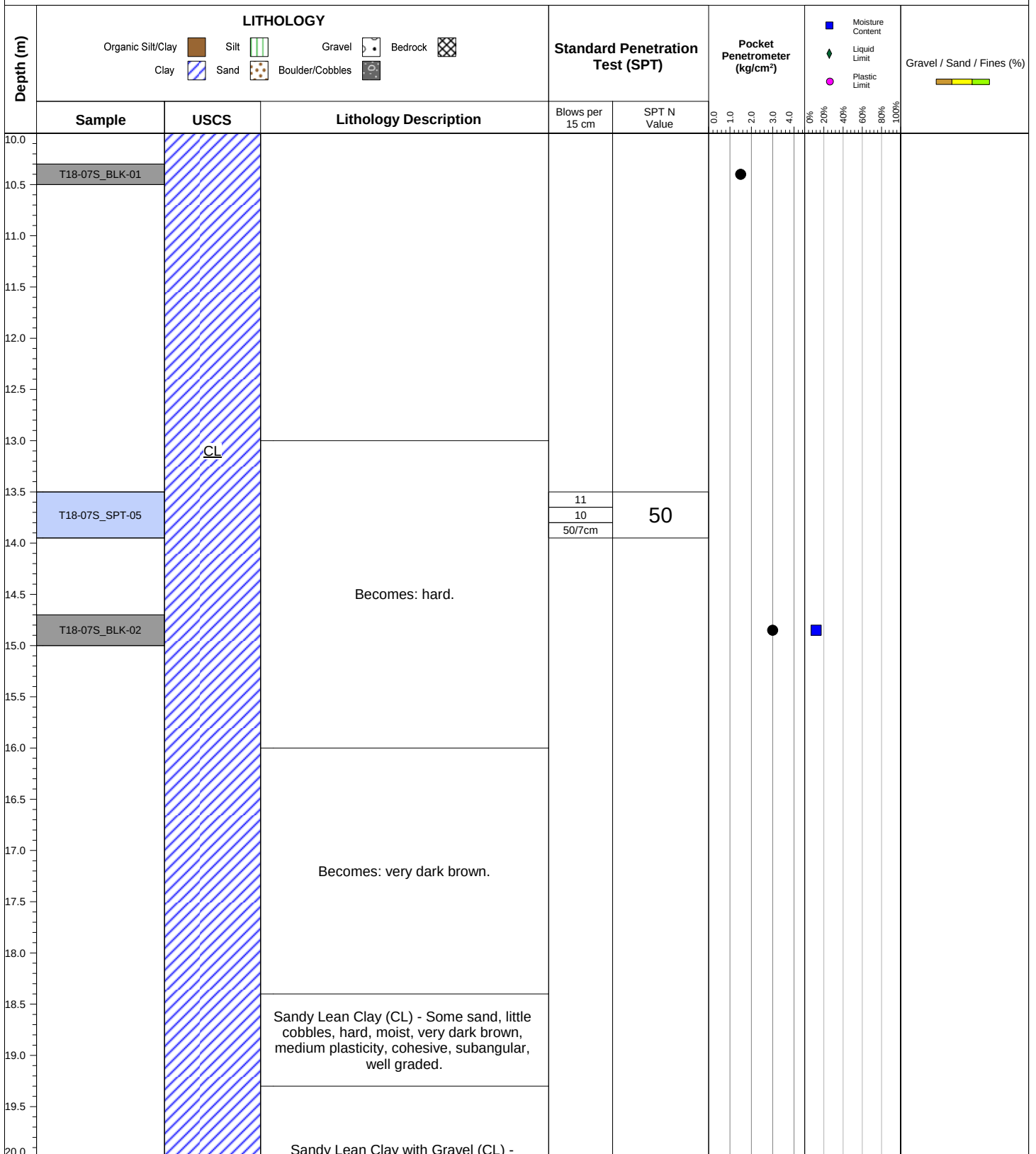


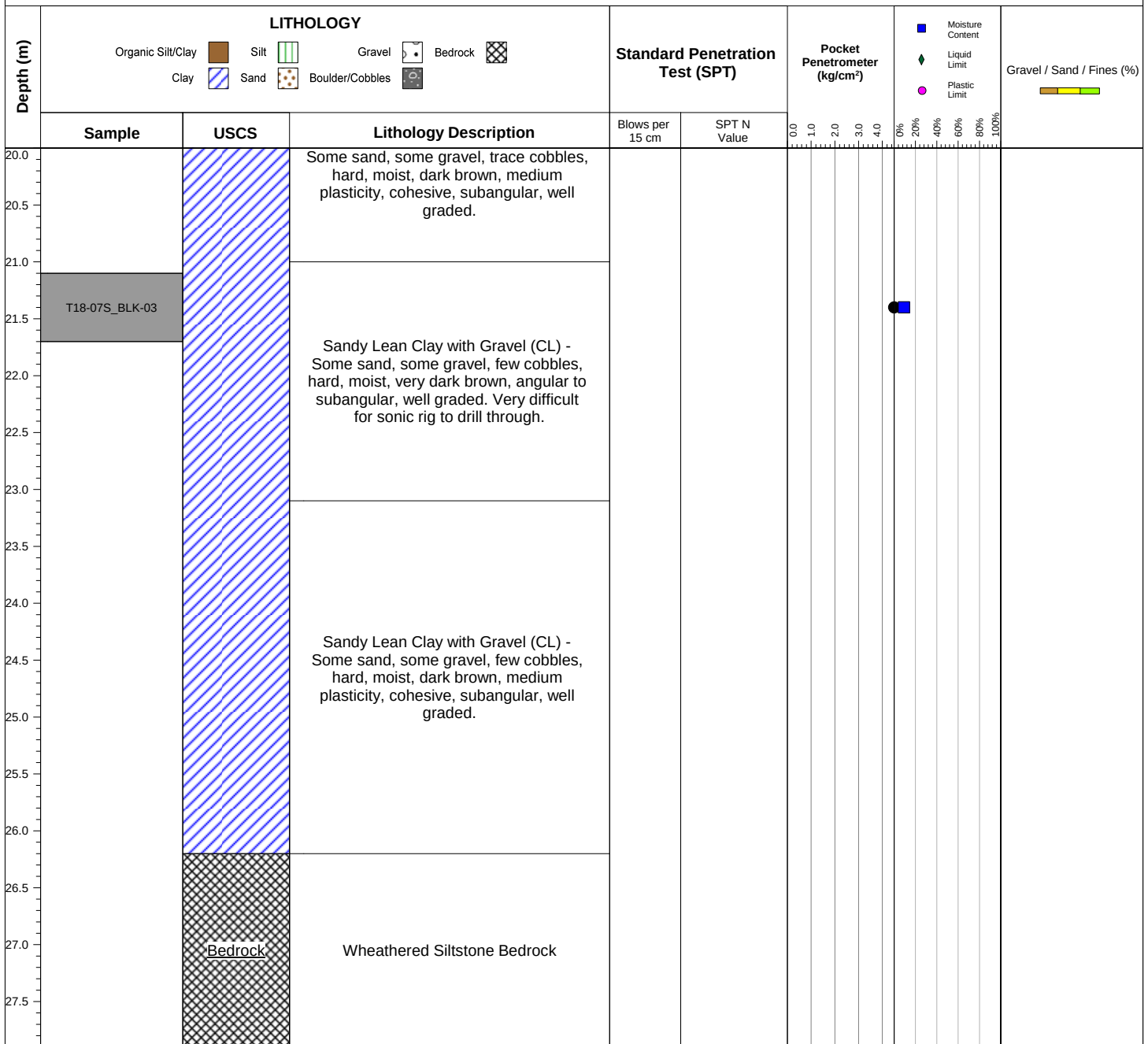


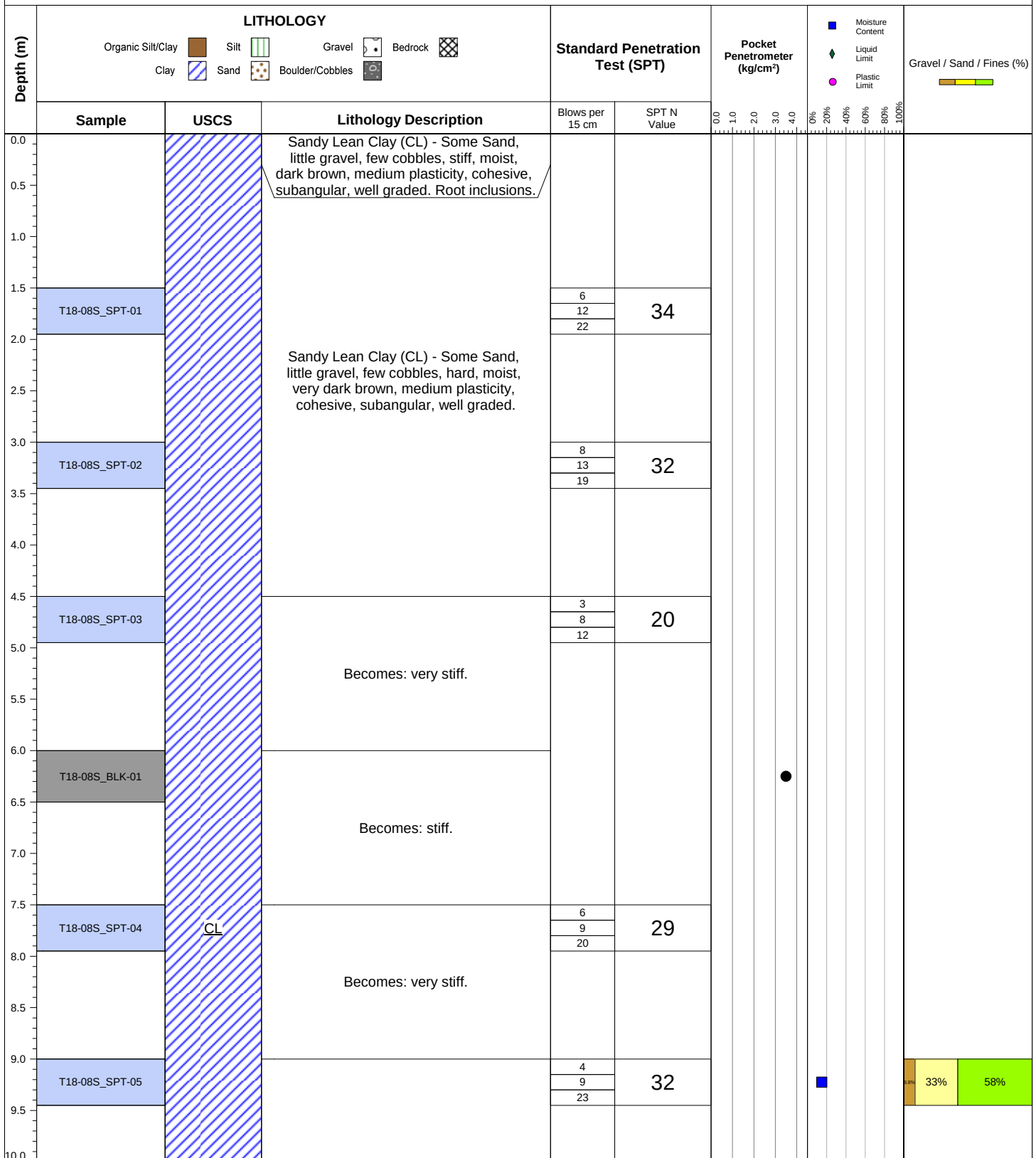


Depth (m)	LITHOLOGY			Standard Penetration Test (SPT)		Pocket Penetrometer (kg/cm ²)		Moisture Content		Gravel / Sand / Fines (%)
	Sample	USCS	Lithology Description	Blows per 15 cm	SPT N Value					
10.0	T18-05S_BLK-02									
10.5										
11.0										
11.5										
12.0										
12.5			Becomes: dark grayish brown.							
13.0										
13.5	T18-05S_SPT-04			8	50					
				21						
				35						

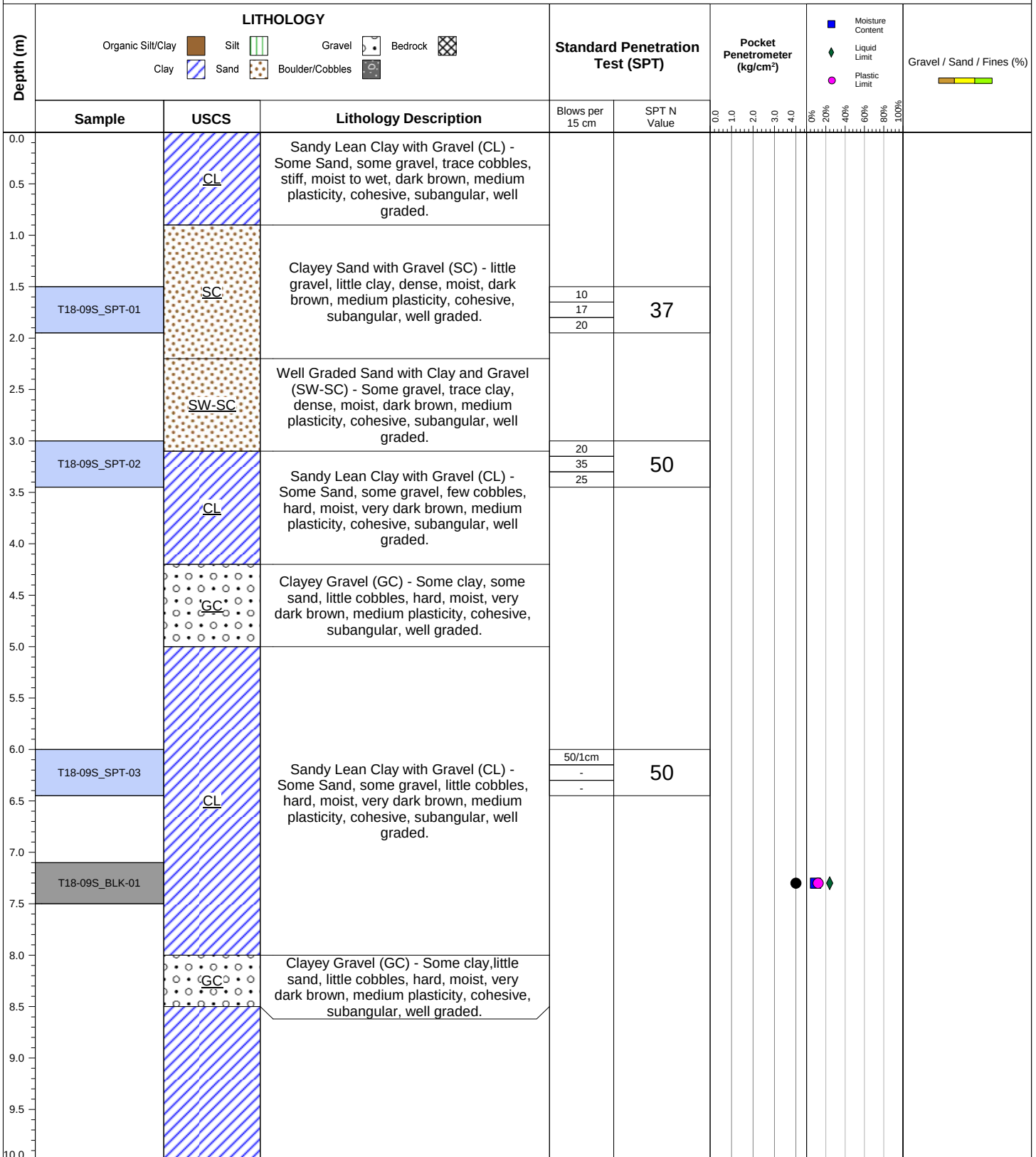
Depth (m)	LITHOLOGY			Standard Penetration Test (SPT)		Pocket Penetrometer (kg/cm ²)		Moisture Content		Gravel / Sand / Fines (%)
	Sample	USCS	Lithology Description	Blows per 15 cm	SPT N Value					
0.0	T18-07S_TPS-01		Lean Clay with Sand (CL) - little sand, little silt, soft, dark brown, medium plasticity, cohesive. Root Inclusions.							
0.5			Lean Clay with Sand (CL) - little sand, little silt, soft, moist, dark brown, medium plasticity, cohesive.							
1.0										
1.5	T18-07S_SPT-01		Sandy Lean Clay with Gravel (CL) - Some sand, some gravel, trace cobbles, very stiff, moist, dark brown, medium plasticity, cohesive, subangular, well graded.	50/7cm	50					
2.0				-						
2.5				-						
3.0										
3.5	T18-07S_SPT-02			6	26					
4.0				10						
4.5				16						
5.0			Becomes: very dark brown.							
5.5										
6.0										
6.5	T18-07S_SPT-03			5	19					
7.0				7						
7.5				12						
8.0										
8.5										
9.0	T18-07S_SPT-04			5	17					
9.5				8						
10.0			Becomes: dark brown.	9						

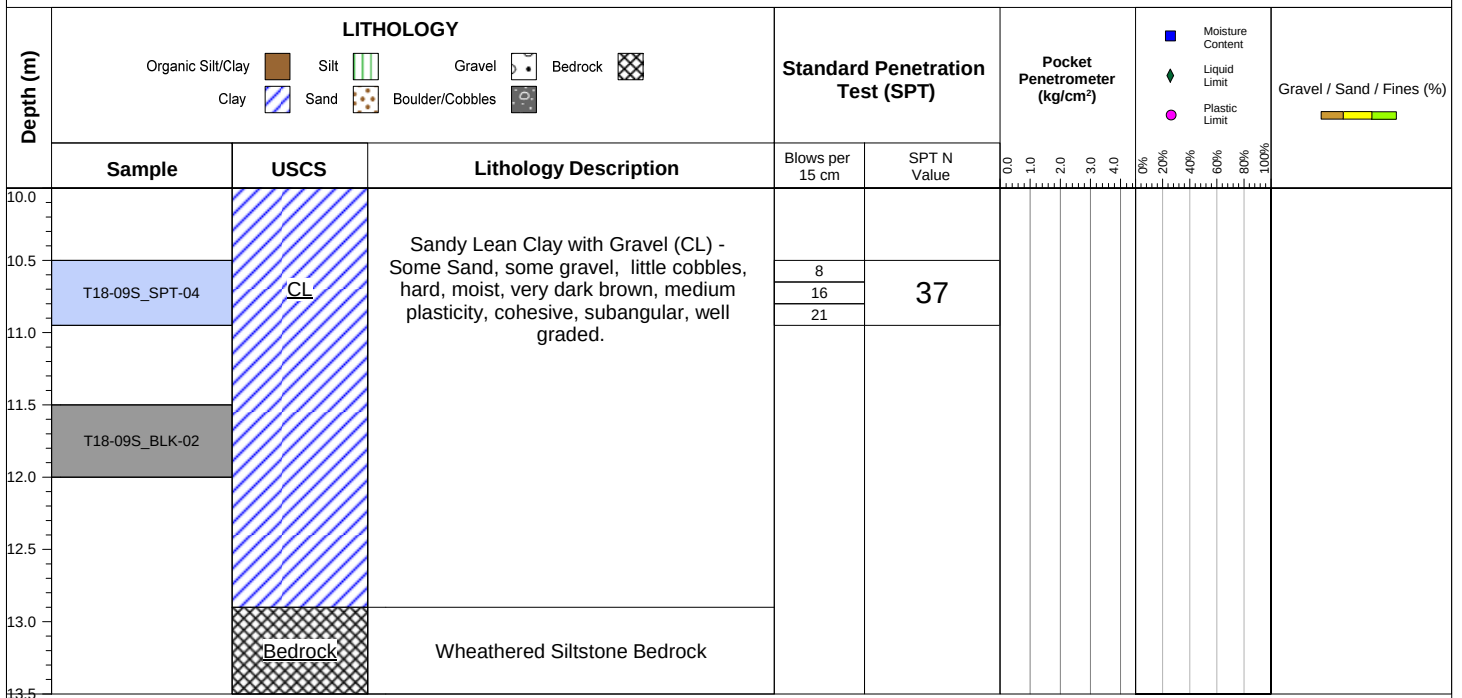


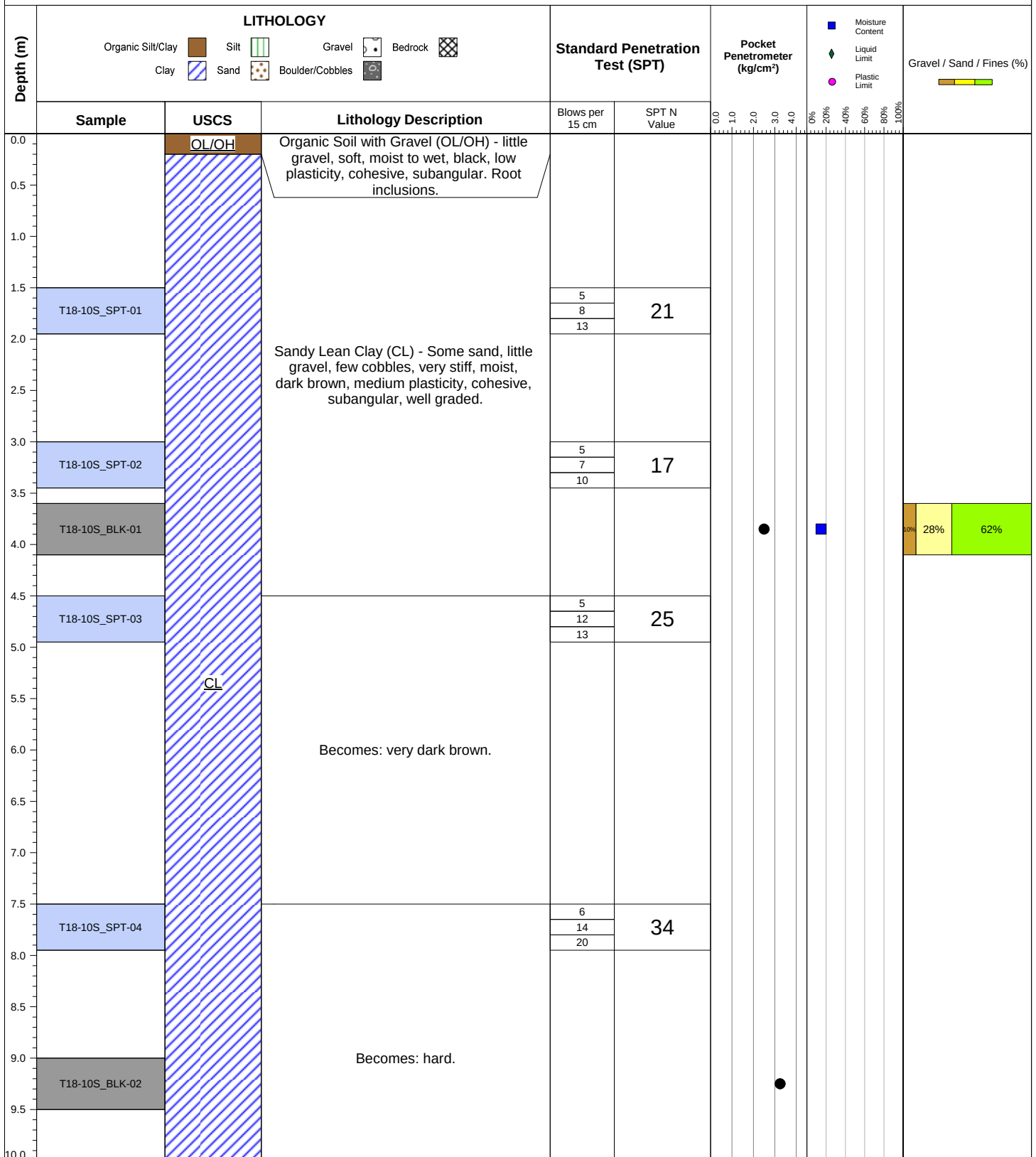


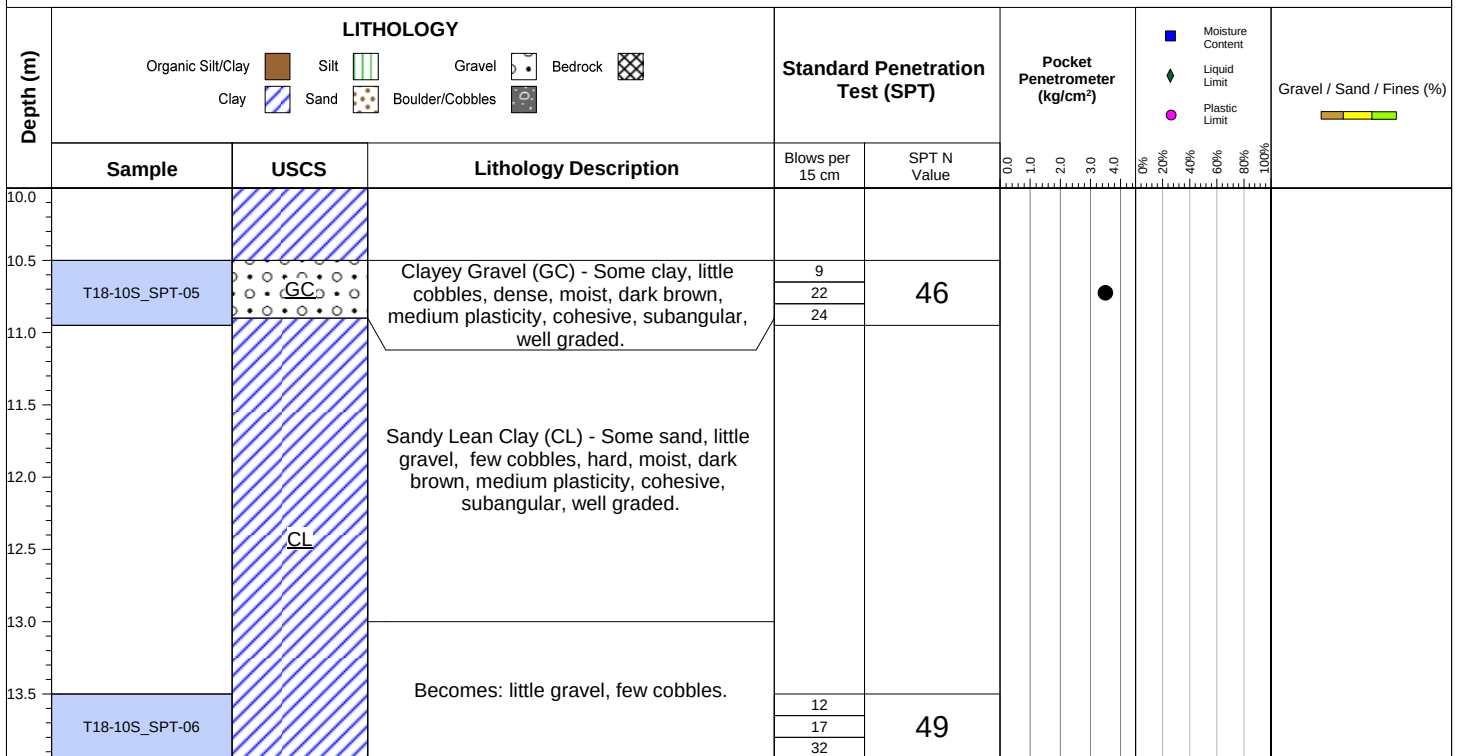


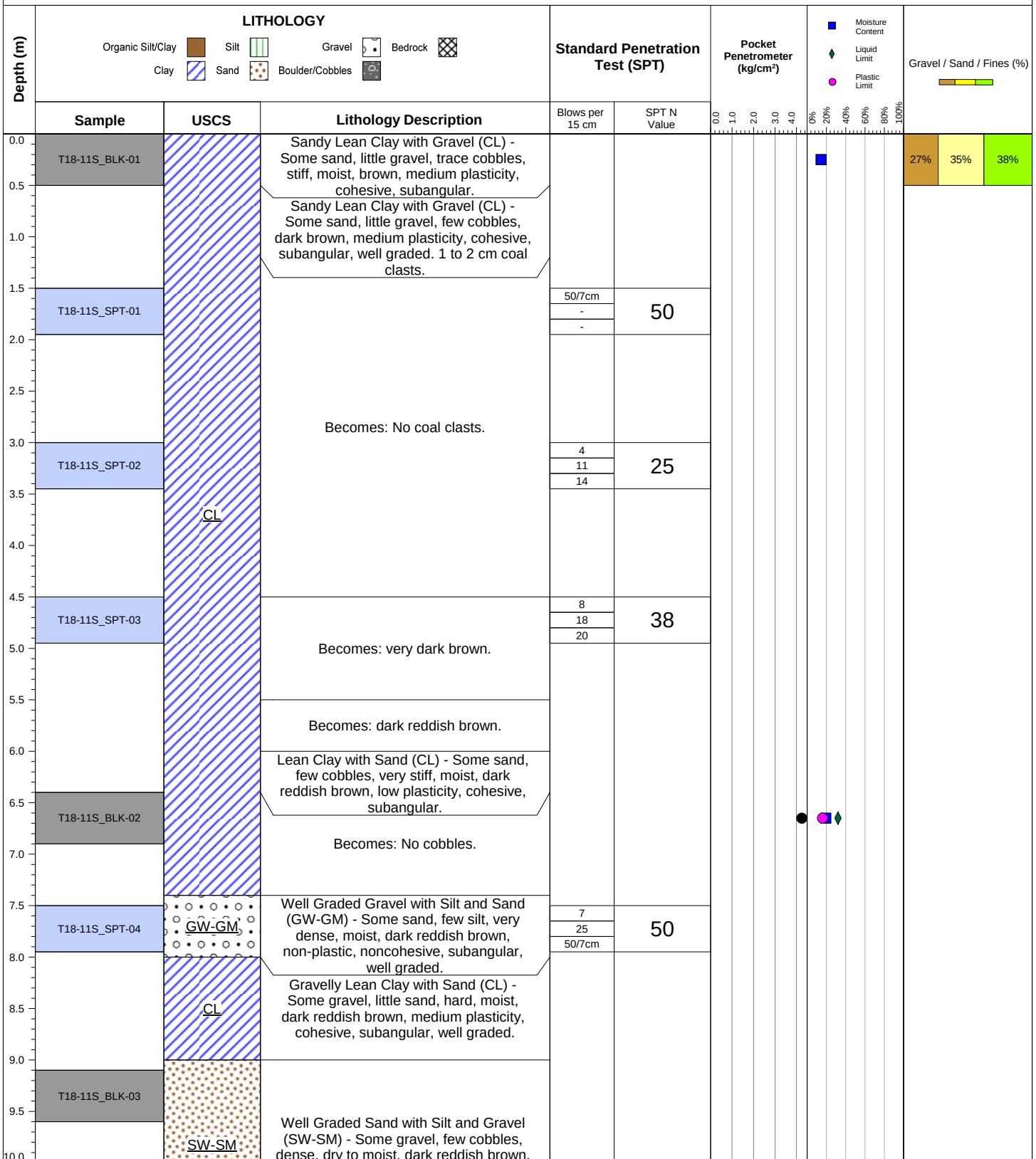
Depth (m)	LITHOLOGY			Standard Penetration Test (SPT)		Pocket Penetrometer (kg/cm ²)		Gravel / Sand / Fines (%)
	Sample	USCS	Lithology Description	Blows per 15 cm	SPT N Value	0.0	0%	
10.0								
10.5								
11.0								
11.5								
12.0	T18-08S_SPT-06		Becomes: hard.	5	34			
12.5				11				
				23				
13.0								
13.5								
14.0								
14.5								
15.0	T18-08S_SPT-07			7	46			
				16				
				30				

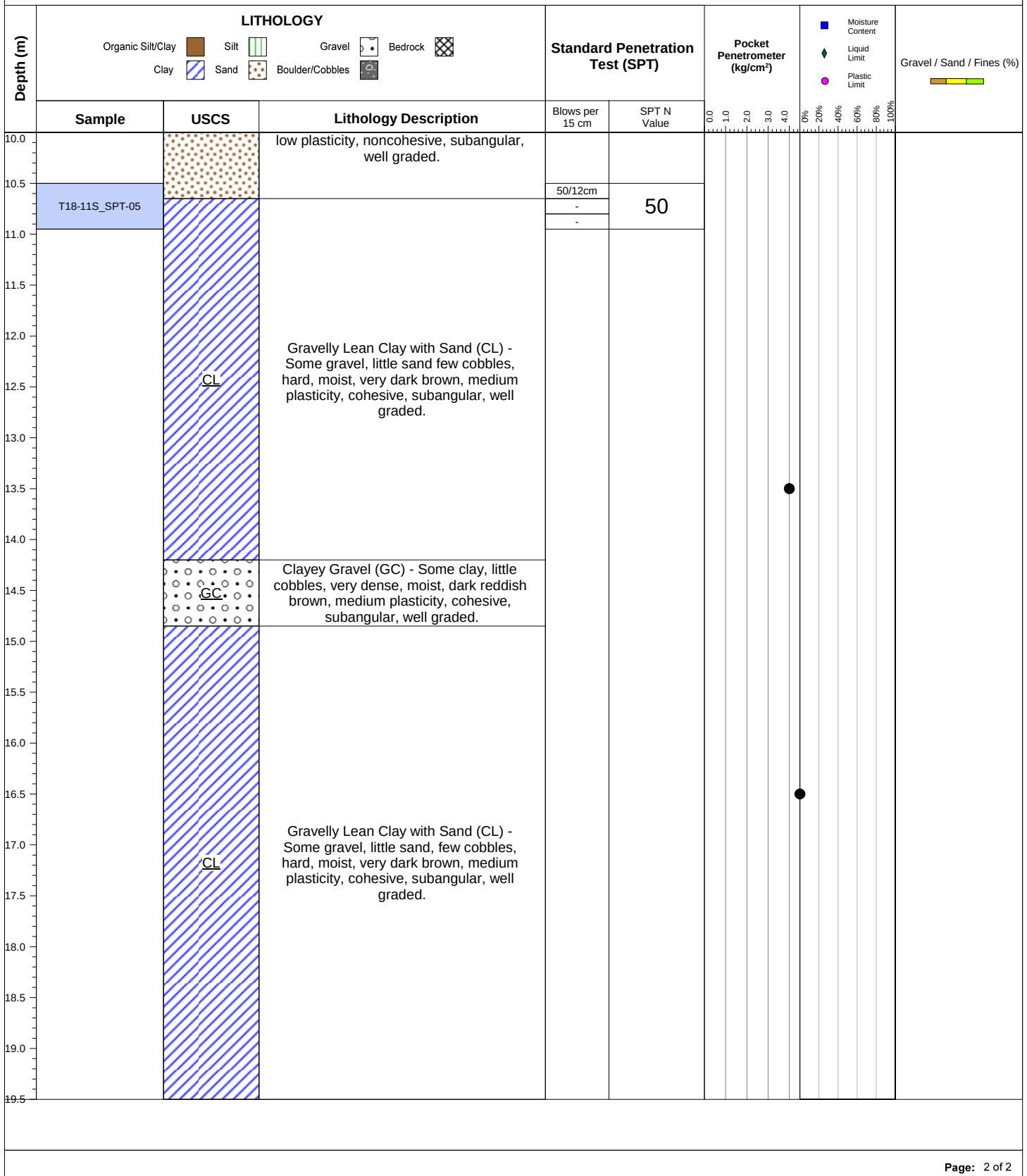


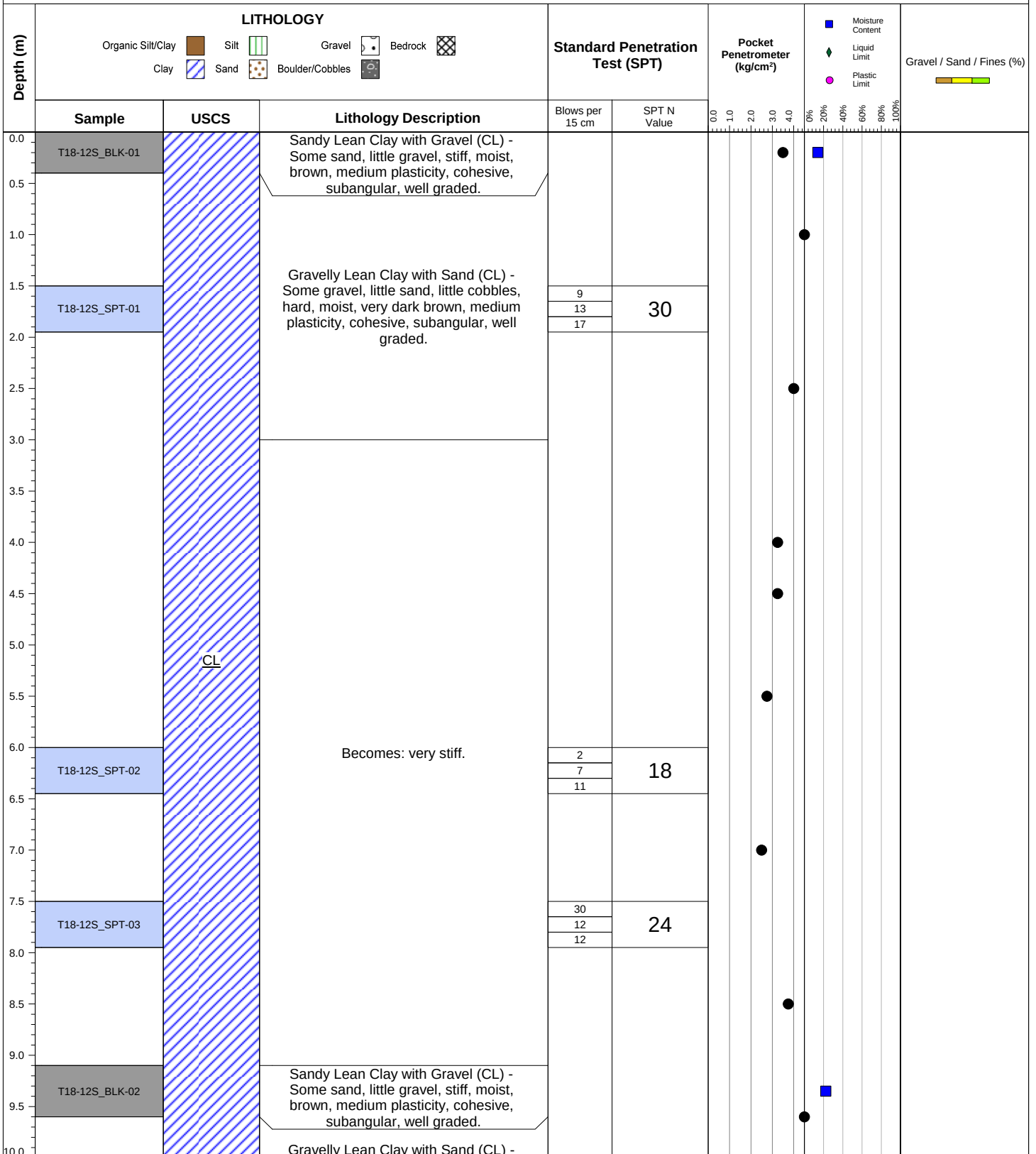


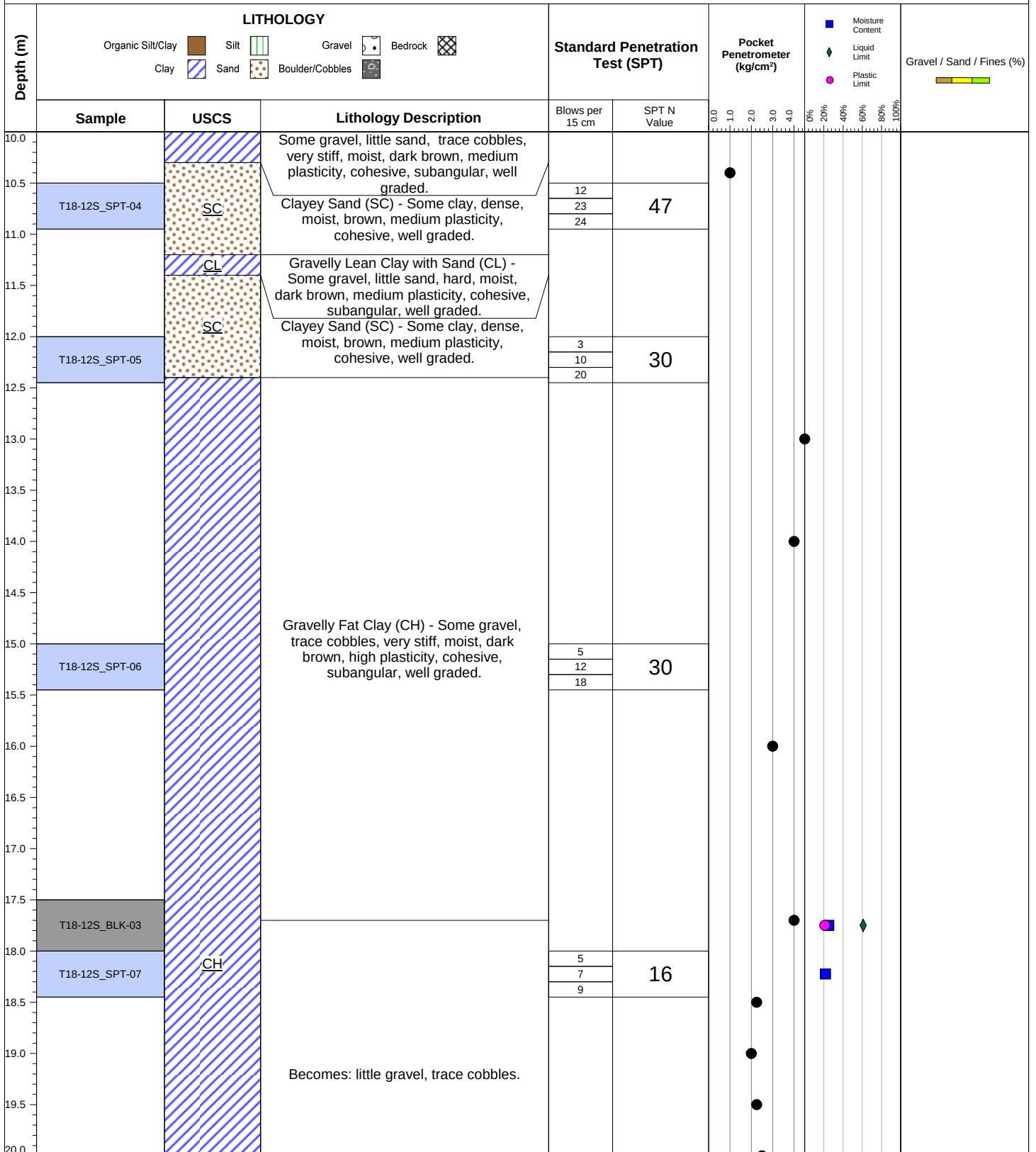


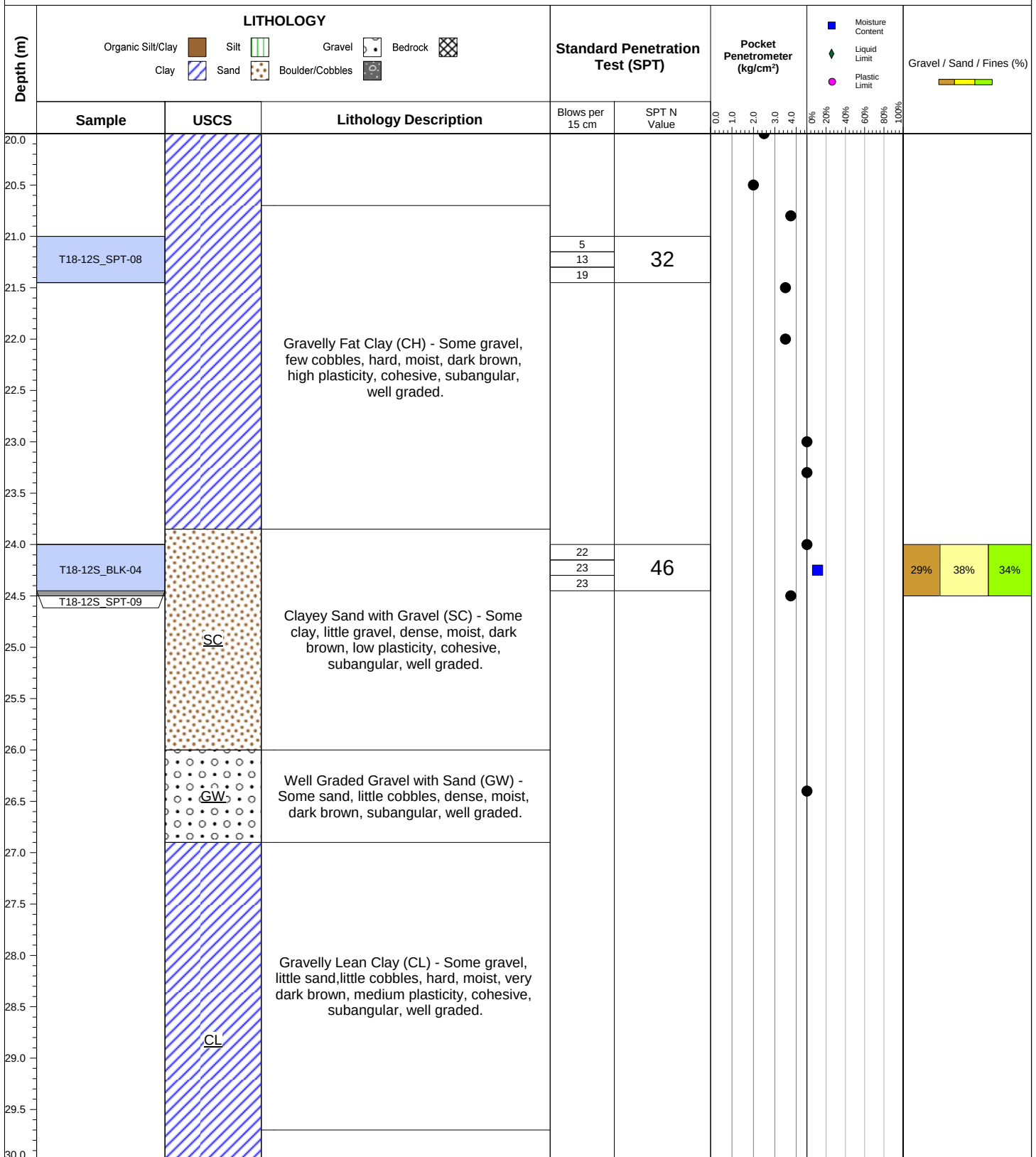




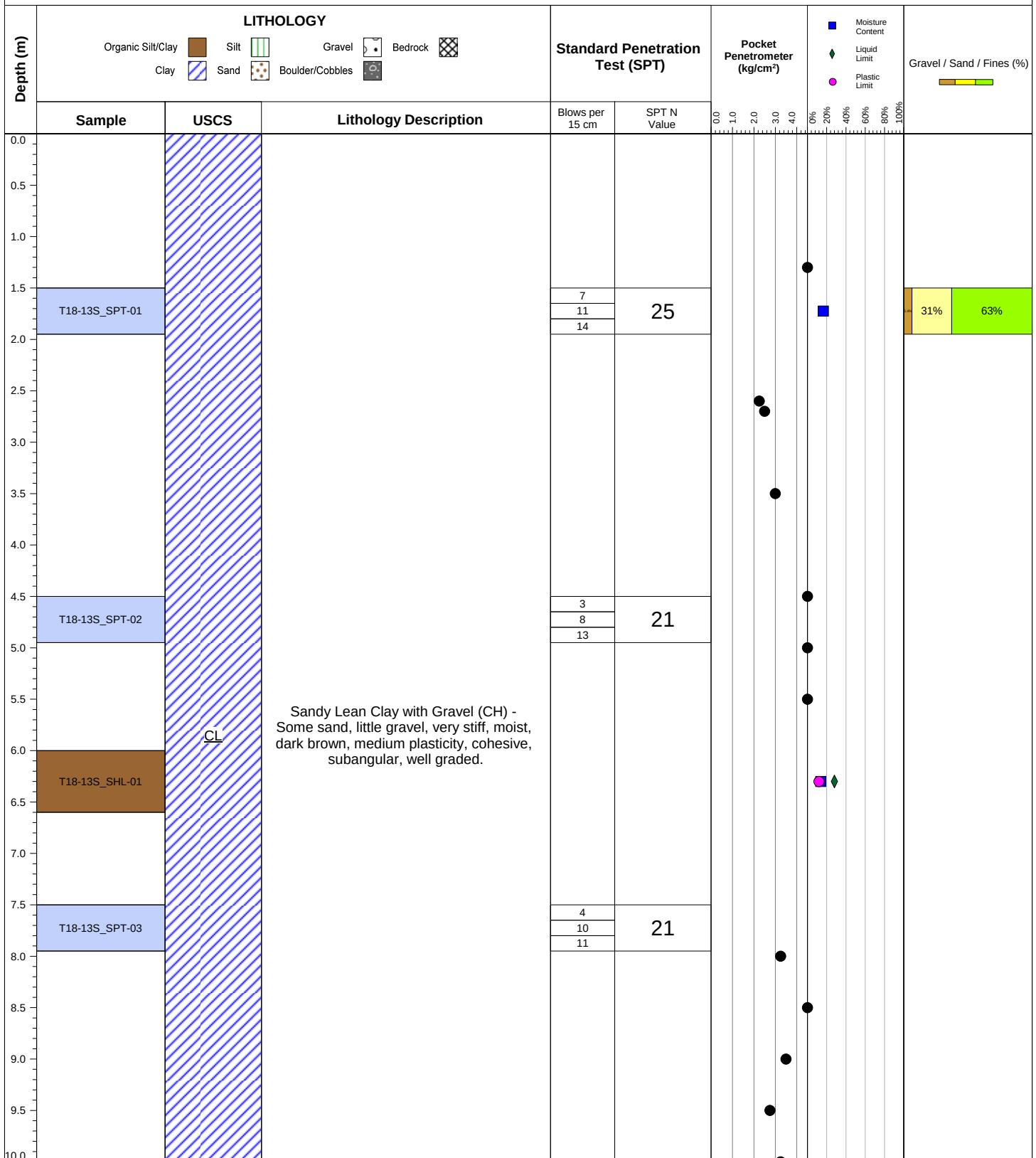


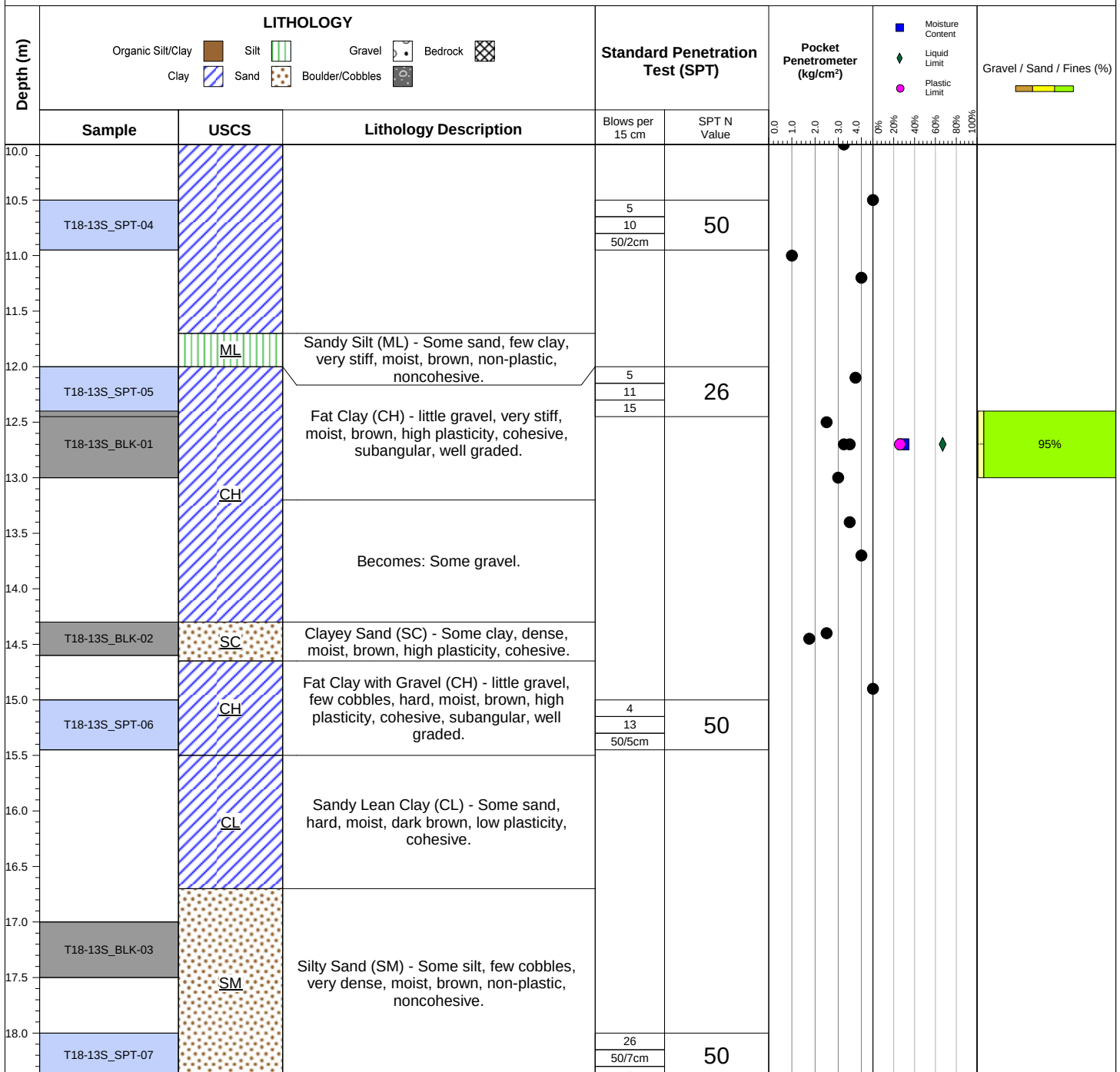


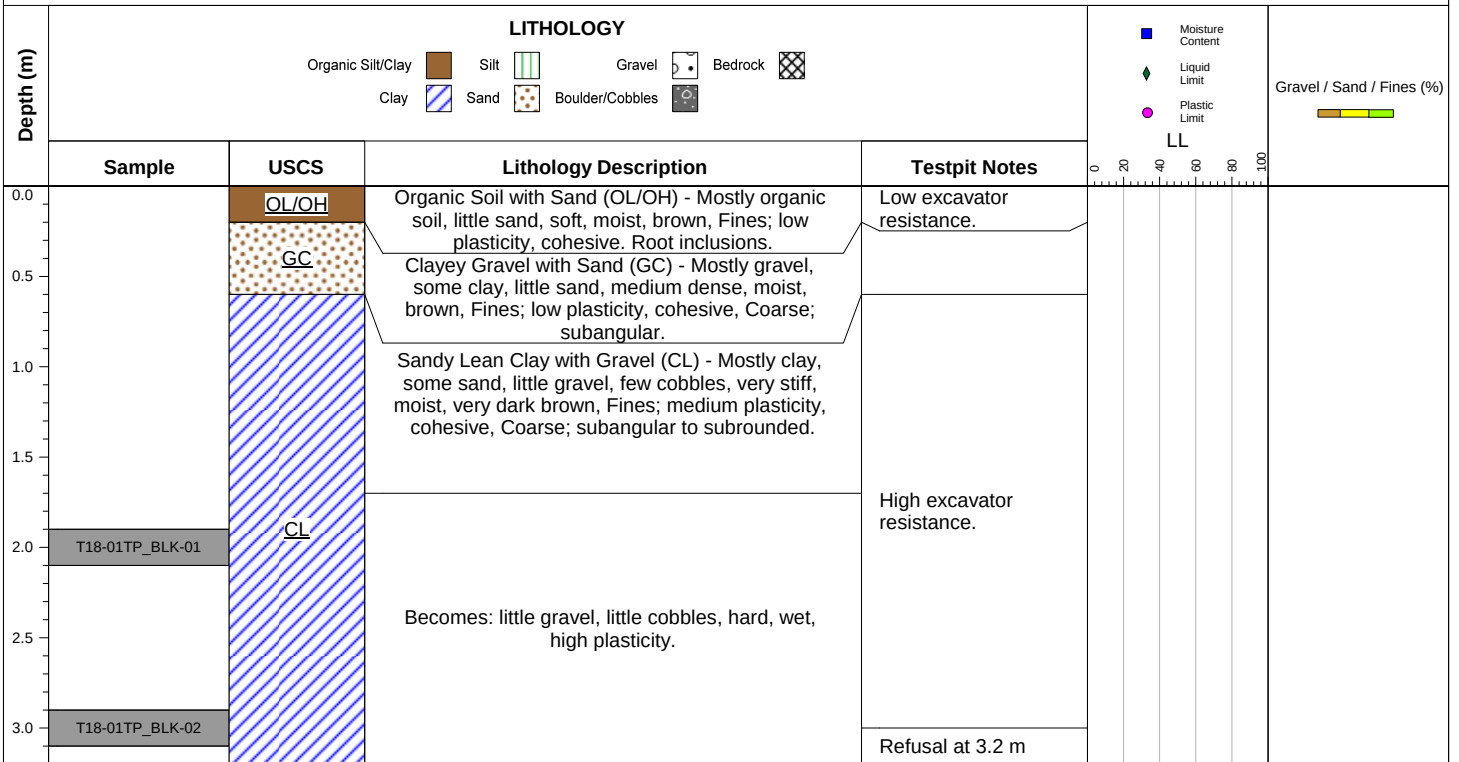


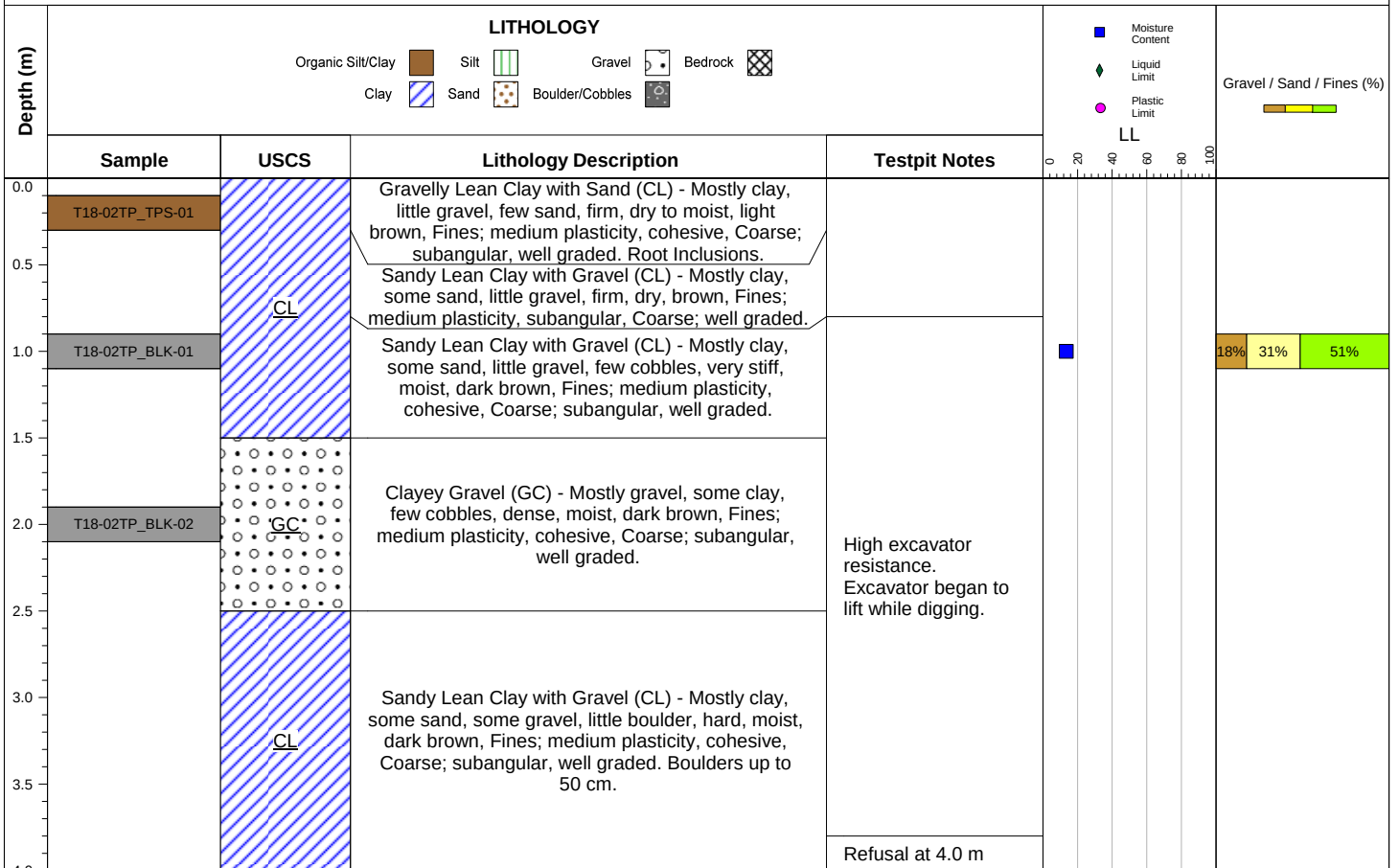


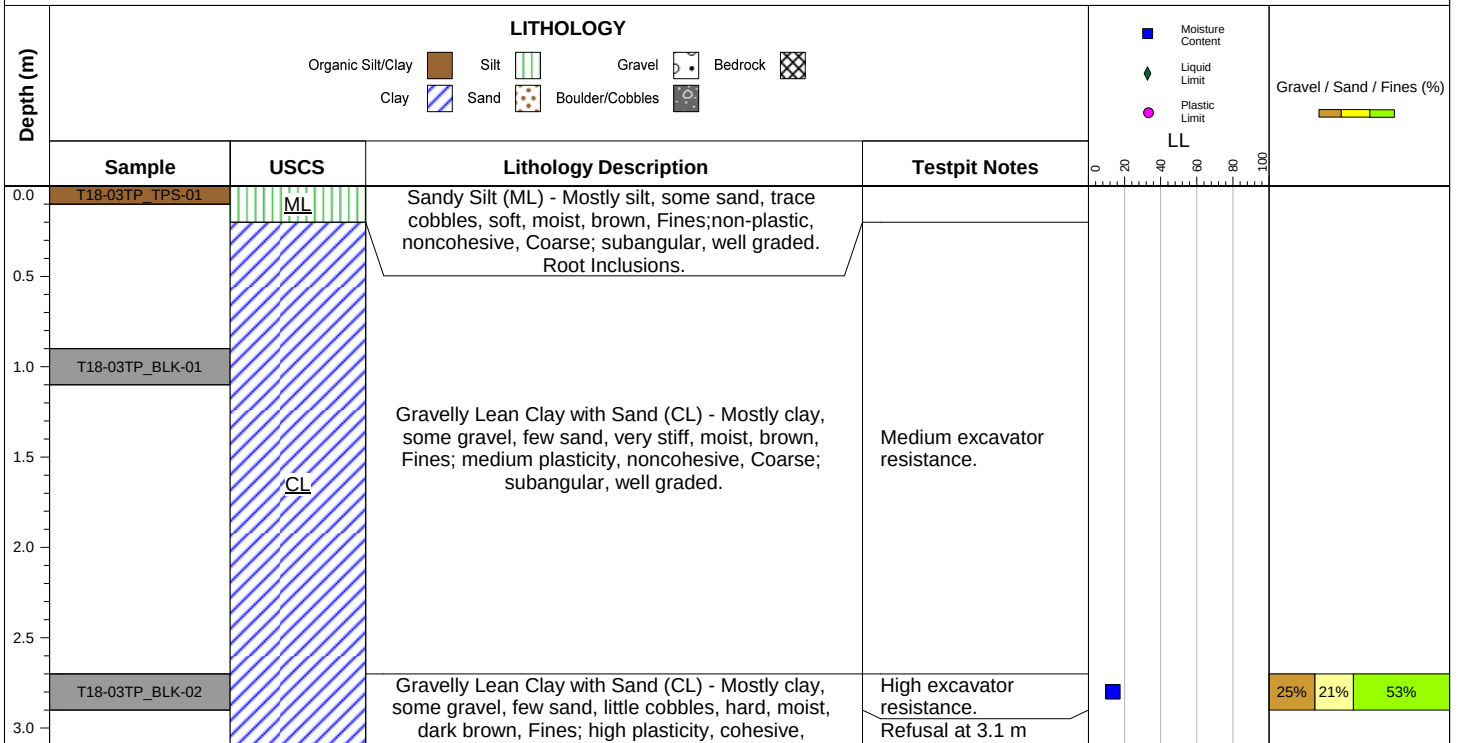
Depth (m)	LITHOLOGY			Standard Penetration Test (SPT)		Pocket Penetrometer (kg/cm ²)	Moisture Content Liquid Limit Plastic Limit	Gravel / Sand / Fines (%)
	Sample	USCS	Lithology Description	Blows per 15 cm	SPT N Value			
30.0								
30.5	T18-12S_SPT-10		Sandy Lean Clay with Gravel (CH) - Some sand, little cobbles, hard, moist, dark brown, high plasticity, cohesive, subangular, well graded.	32 50 -	50			

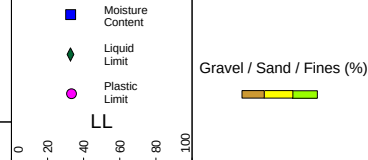




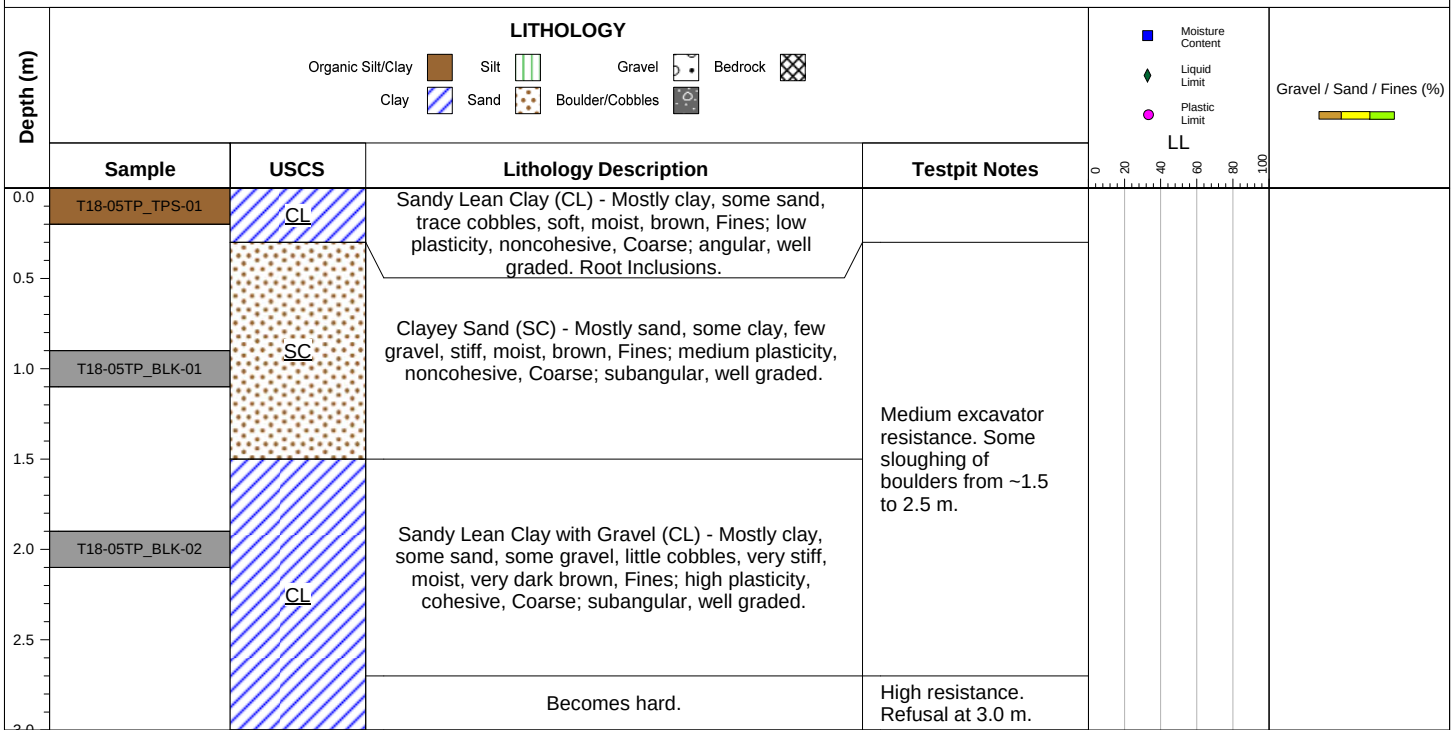


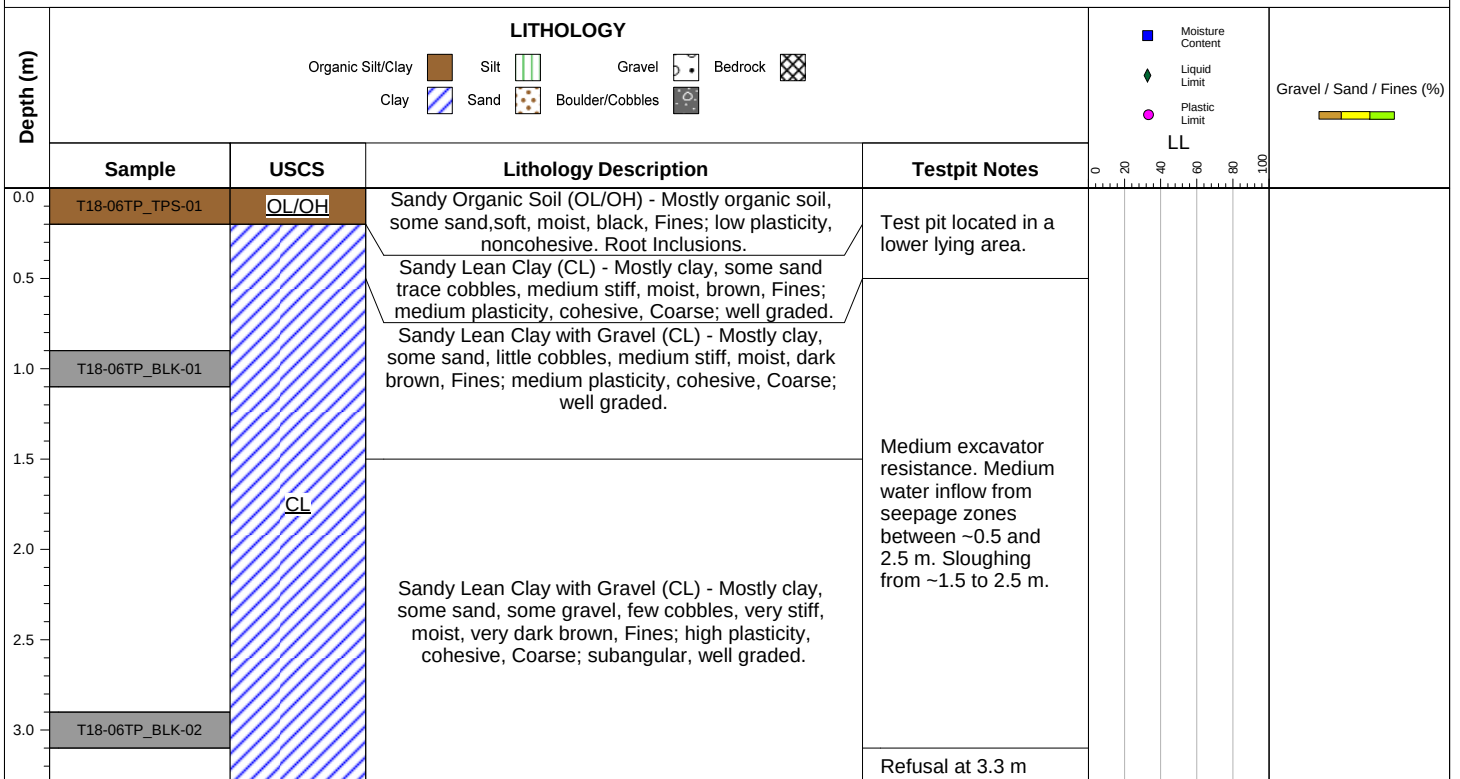


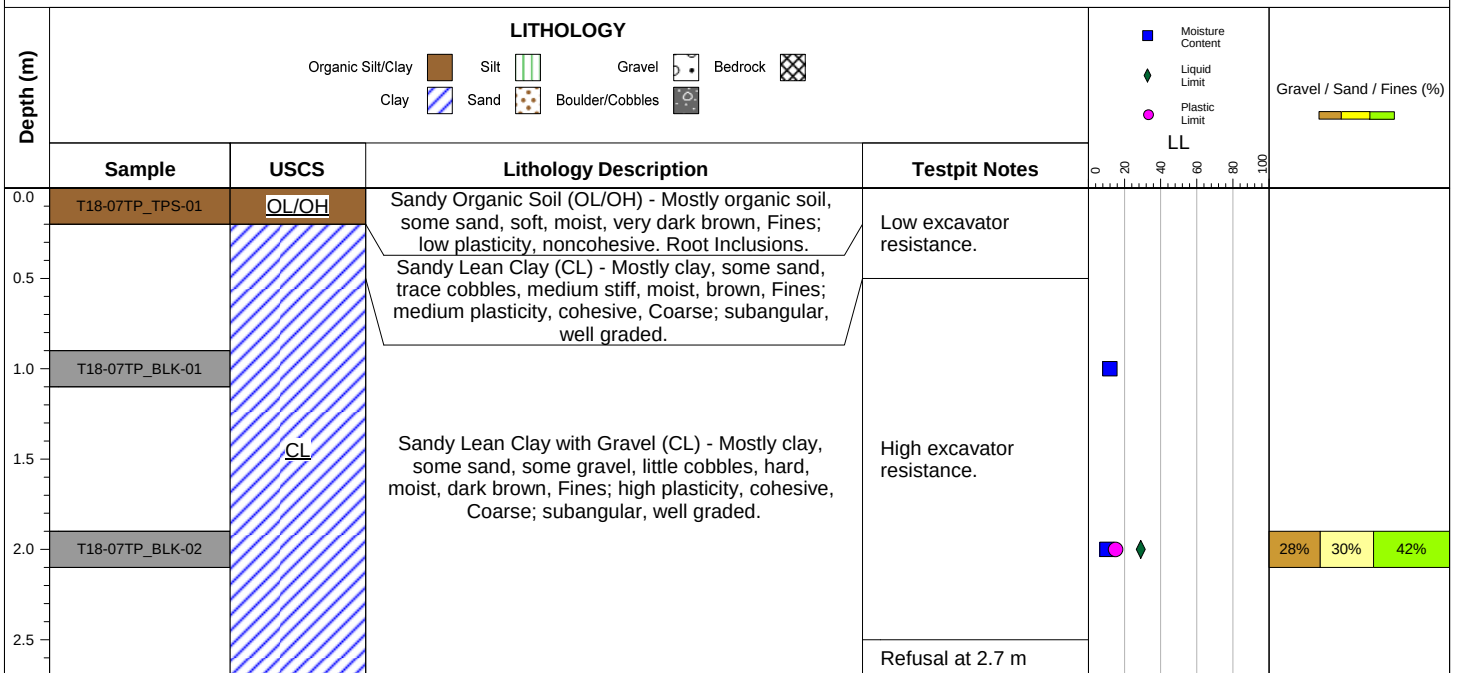


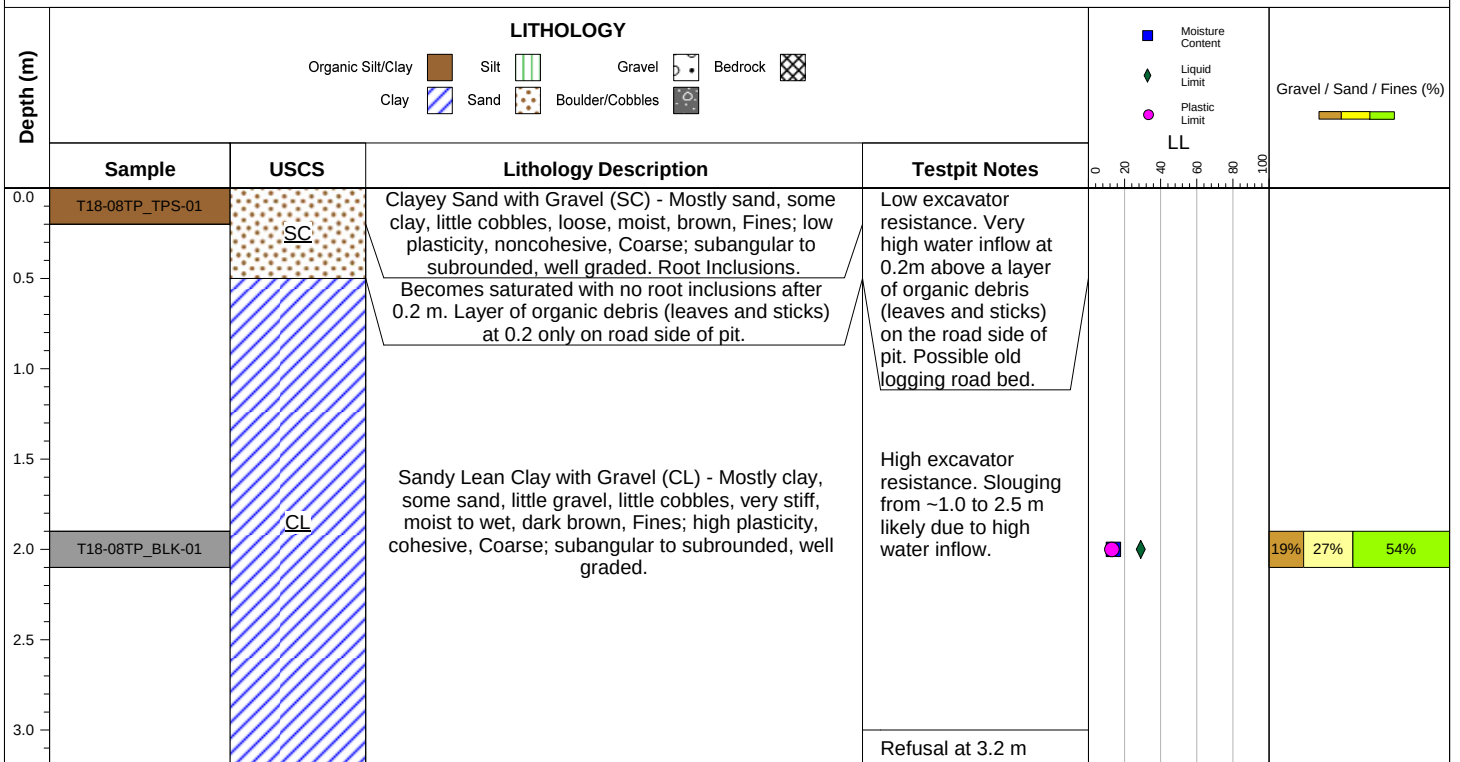
Depth (m)	LITHOLOGY				Gravel / Sand / Fines (%)
	Sample	USCS	Lithology Description	Testpit Notes	
0.0	T18-04TP_TPS-01	OL/OH	Organic Soil (OL/OH) - Mostly organic soil, little sand, soft, moist, black, Fines; low plasticity, noncohesive. Root Inclusions.	Test pit located near to small creek. Low excavator resistance.	
0.5			Sandy Lean Clay with Gravel (CL) - Mostly clay, some sand, little gravel, stiff, moist, brown, Fines; high plasticity, cohesive, Coarse; subangular, well graded.		
1.0			Sandy Lean Clay with Gravel (CL) - Mostly clay, some sand, some cobbles, stiff, moist, brown, Fines; low plasticity, noncohesive, Coarse; subangular, well graded.		
1.5					
2.0	T18-04TP_BLK-01	CL			
2.5			Becomes: very stiff, wet, dark brown. Increase in size of cobbles and boulders up to a maximum of 25 cm.	Medium excavator resistance. Sloughing from ~2.2 to 3.0 m. Seepage from ~2.2 to 3.6 m. Possible GWT at 2.2 m.	
3.0					
3.5	T18-04TP_BLK-02		Gravelly Lean Clay with Sand (CL) - Mostly clay, little gravel, little sand, little cobbles, hard, moist to wet, dark brown, Fines; high plasticity, cohesive, Coarse; subangular, well graded.	High excavator resistance starting at 3.1 m) Refusal at 3.6 m	











Client: Allegiance Coal Ltd.

Location: 2CT025.002

Project No.: Telkwa, BC

Contractor: Allegiance Coal Ltd. Excavator

Logged By: EC, SRK

Excavation Type: Test Pit

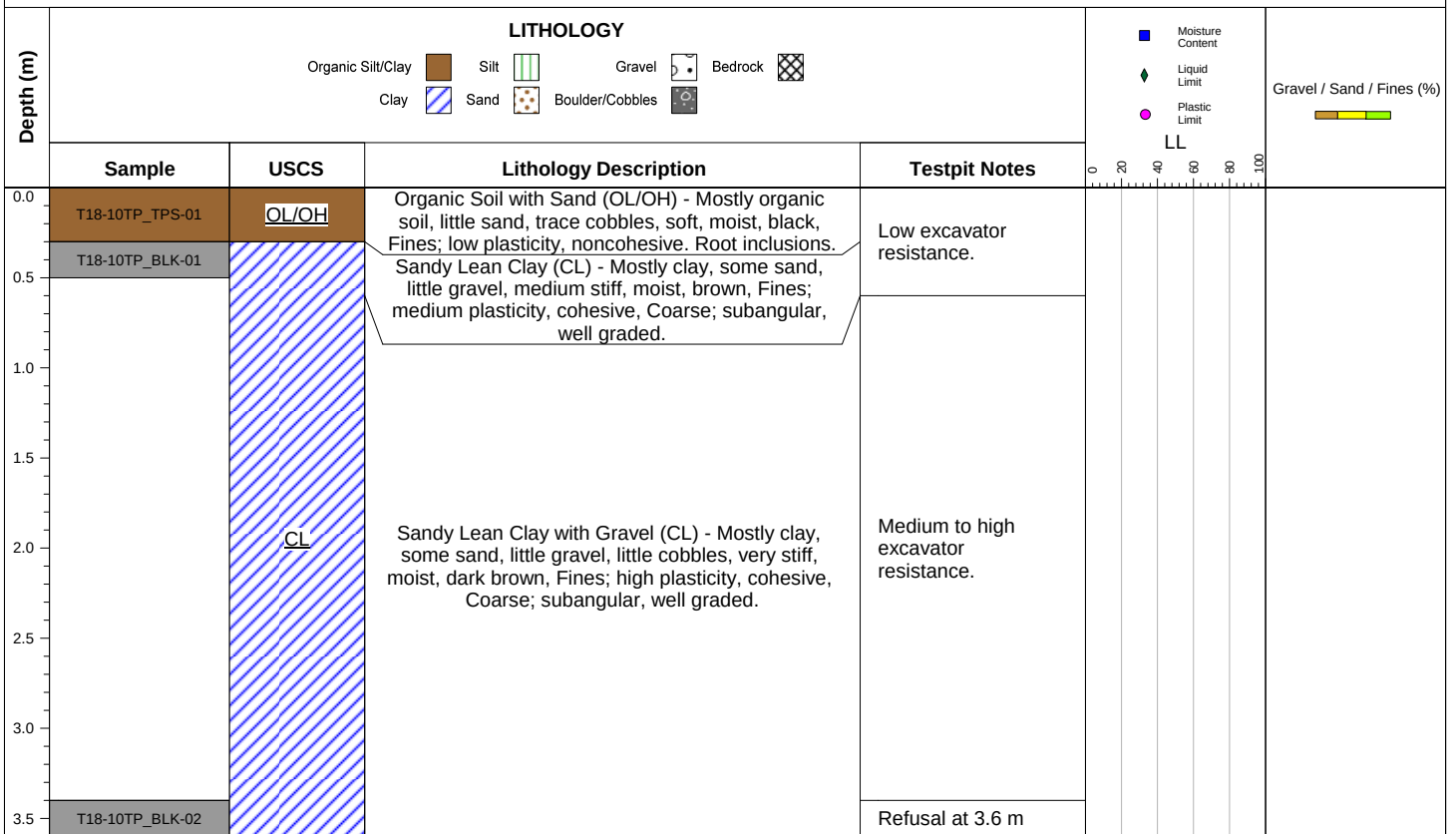
Date From: 02/7/2018 **To:** 02/7/2018

Coordinates: E 619008.0 m, N 6052695.0 m, Elev. 821.0 m

Datum: UTM NAD83, Zone 9 North. Coordinates and elevation surveyed by Telkwa. Values rounded to nearest metre.
Note: Coordinates estimated. Location not surveyed.

Depth (m)	LITHOLOGY				Moisture Content	Liquid Limit	Plastic Limit	Gravel / Sand / Fines (%)
	Organic Silt/Clay	Silt	Gravel	Bedrock				
0.0	T18-09TP_TPS-01	OL/OH	Sandy Organic Soil (OL/OH) - Mostly organic soil, some sand, soft, moist, dark brown, Fines; low plasticity, noncohesive, Coarse; well graded. Root inclusions.					
0.5								
1.0	T18-09TP_BLK-01		Sandy Lean Clay (CL) - Mostly clay, some sand, little gravel, stiff, moist, brown, Fines; low plasticity, noncohesive, Coarse; subangular, well graded.					
1.5								
2.0		CL	Sandy Lean Clay (CL) - Mostly clay, some sand, little gravel, few cobbles, hard, moist, dark brown, Fines; high plasticity, cohesive, Coarse; subangular, well graded.					
2.5								
3.0	T18-09TP_BLK-02							
3.2								







Client: Allegiance Coal Ltd.
Location: 2CT025.002
Project No.: Telkwa, BC
Contractor: Allegiance Coal Ltd. Excavator
Logged By: EC, SRK

Excavation Type: Test Pit
Date From: 02/13/2018 **To:** 02/13/2018
Coordinates: E 616606.7 m, N 6051627.5 m, **Elev.** 923.0 m
 Datum: UTM NAD83, Zone 9 North. Coordinates and elevation surveyed by Telkwa. Values rounded to nearest metre.

Depth (m)	LITHOLOGY				Moisture Content	Liquid Limit	Plastic Limit	Gravel / Sand / Fines (%)
	Organic Silt/Clay	Silt	Gravel	Bedrock				
	Clay	Sand	Boulder/Cobbles					
Sample	USCS	Lithology Description	Testpit Notes	LL				
0.0	T18-11TP_TPS-01	Sandy Lean Clay (CL) - Mostly clay, some sand, few cobbles, soft, moist, brown, Fines; low plasticity, noncohesive, Coarse; subangular, poorly graded. Root inclusions.	Low to medium excavator resistance.	0				
0.5		Sandy Lean Clay (CL) - Mostly clay, some sand, little gravel, medium stiff, moist, brown, Fines; medium plasticity, cohesive, Coarse; subangular, well graded.			20			
1.0	T18-11TP_BLK-01		High excavator resistance.	40				
1.5	CL	Sandy Lean Clay with Gravel (CL) - Mostly clay, some sand, some gravel, little cobbles, very stiff, moist, dark brown, Fines; high plasticity, cohesive, Coarse; subangular, well graded. Occasional coal clasts up to 20 cm..			60			
2.0			Refusal at 3.0 m	80				
2.5					100			
3.0	T18-11TP_BLK-02							



