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## *Appendix A*

### Shovel Test Data

Phase I Solar BG, Berlin, VT

STP	Stratum	Depth to base of Stratum		Soil Color	Texture	Coarse Fraction	Comments
		cm	ft				
A-1	A	20	0.66	10YR 4/3 Brown	Sand	15 percent gravels	Fill
	B	50	1.64	10YR 4/3 Brown mottled with 10YR 5/6 Yellowish Brown	Sandy Loam	10 percent gravels	Fill
	C	75	2.46	10YR 3/2 Very Dark Grayish Brown	Sand	15 percent gravels	Fill
	D	126	4.13	2.5Y 4/4 olive Brown	Silt Loam		Began auger testing at 84 centimeters below surface. Very compact.
A-2	A	27	0.89	10YR 3/2 Very Dark Grayish Brown	Sand	15 percent gravels	Fill
	B	33	1.08	2.5Y 4/4 olive Brown	Sand	15 percent gravels	Fill
	C	38	1.25	10YR 3/2 Very Dark Grayish Brown	Sand	15 percent gravels	Fill
	D	68	2.23	2.5Y 4/4 olive Brown	Silt Loam		Sterile subsoil
A-3	A	18	0.59	10YR 3/2 Very Dark Grayish Brown	Silt Loam		
	B	38	1.25	2.5Y 4/4 olive Brown mottled with 2.5Y 5/2 grayish brown	silty clay loam		
A-4	A	18	0.59	10YR 3/2 Very Dark Grayish Brown	Sand	10 percent gravels	Fill.
	B	35	1.15	10YR 3/2 Very Dark Grayish Brown mottled with 10YR 5/6 Yellowish Brown	Sand		
	C	50	1.64	2.5Y 4/4 olive Brown	Silt Loam		
A-5	A	37	1.21	10YR 3/2 Very Dark Grayish Brown	Silt Loam		Fill. Mid-twentieth century trash, including beer bottle glass and metal.
	B	50	1.64	10YR 3/2 Very Dark Grayish Brown 10YR 5/6 Yellowish Brown	Sand		Fill. Railroad gravel.
	C	64	2.10	10YR 3/2 Very Dark Grayish Brown	Sand		Fill. Railroad gravel.
	D	100	3.28	2.5Y 4/4 olive Brown	Silt Loam		
A-6	A	55	1.80	10YR 3/2 Very Dark Grayish Brown	Silt Loam		Fill. Mid-twentieth century trash, including beer bottle glass and metal.
	B	74	2.43	10YR 3/2 Very Dark Grayish Brown	Silt Loam		Fill. Railroad gravel.
	C	104	3.41	10YR 2/1 Black	Silt Loam		Fill. Railroad gravel. Wet.
B-1	A	13	0.43	10YR 3/2 Very Dark Grayish Brown	Sand		
	B	23	0.75	10YR 3/3 Dark Brown	Sandy Loam		

Phase I Solar BG, Berlin, VT

STP	Stratum	Depth to base of Stratum		Soil Color	Texture	Coarse Fraction	Comments
	C	43	1.41	2.5Y 4/4 olive Brown	Silt Loam		
B-2	A	30	0.98	2.5Y 4/4 olive Brown	Silt Loam		Sterile subsoil. Topsoil has been truncated.
B-3	A	40	1.31	10YR 4/2 Dark Grayish Brown	Sandy Loam		Fill. Modern glass.
	B	75	2.46	10YR 5/4 Yellowish Brown mottled with 7.5YR 4/4 brown	Silt		Sterile subsoil.
B-4	A	19	0.62	10YR 3/2 Very Dark Grayish Brown	Silt Loam		
	B	60	1.97	10YR 4/4 Dark Yellowish Brown	Sand	15 percent gravels	
	C	80	2.62	10YR 5/2 Grayish Brown	Coarse sand	5 percent cobbles	
B-5	A	42	1.38	10YR 3/2 Very Dark Grayish Brown	Sandy Loam	15 percent gravels and cobbles	Fill. Modern bottle glass and rusty rebar mixed throughout.
	B	62	2.03	2.5Y 4/4 olive Brown mottled with 7.5YR 4/4 brown	Silt Loam		
C-1	A	20	0.66	10YR 3/2 Very Dark Grayish Brown	Sandy Loam		Fill. Modern bottle glass discarded.
	B	75	2.46	2.5Y 4/4 olive Brown	Silt Loam		
C-2	A	26	0.85	10YR 4/2 Dark Grayish Brown	Silt Loam		
	B	42	1.38	2.5Y 4/4 olive Brown	Silt Loam		
C-3	A	17	0.56	10YR 4/2 Dark Grayish Brown	Silt Loam		Fill. Modern bottle glass, asphalt, metal, nails, wood discarded.
	B	46	1.51	2.5Y 4/4 olive Brown			
D-1	A	24	0.79	10YR 4/2 Dark Grayish Brown	Silt Loam		Fill. Modern bottle glass, asphalt, metal, nails, wood discarded.
	B	37	1.21	10YR 4/4 Dark Yellowish Brown	Silt Loam		Fill. Tin can discarded.
	C	56	1.84	2.5Y 4/4 olive Brown	Silt Loam		Compact soils.
D-2	A	17	0.56	7.5YR 3/2 Dark Brown	Silt Loam		Fill. Discarded metal. Bedrock impasse.
E-1	A	27	0.89	10YR 4/2 Dark Grayish Brown	Silt Loam		
	B	45	1.48	2.5Y 4/4 olive Brown	Silty Clay Loam		
	C	60	1.97	10YR 5/2 Grayish Brown	Silty Clay		Compact.
	D	80	2.62	10YR 5/2 Grayish Brown	Clay		
	E	130	4.26	10YR 5/2 Grayish Brown	Silty Clay		Encountered cobbles at 115 cm dbs.

Phase I Solar BG, Berlin, VT

STP	Stratum	Depth to base of Stratum		Soil Color	Texture	Coarse Fraction	Comments
E-2	A	22	0.72	10YR 4/2 Dark Grayish Brown	Silt Loam		
	B	40	1.31	2.5Y 4/4 olive Brown	Silty Clay Loam		
	C	109	3.58	2.5Y 5/3 Light Olive Brown	Silty Clay Loam		Very compact. Began auger testing at 83 cm dbs.
	D	129	4.23	2.5Y 5/3 Light Olive Brown	Sand		
E-3	A	27	0.89	10YR 4/2 Dark Grayish Brown	Silt Loam		Discarded coal and slag.
	B	34	1.12	2.5Y 4/4 olive Brown	Silty Clay Loam		
	C	112	3.67	2.5Y 5/3 Light Olive Brown	Silty Clay Loam		Began auger testing at 83 cm dbs. Compact.
	D	130	4.26	2.5Y 5/4 Light Olive Brown	Sand		
	E	160	5.25	10YR 5/8 Yellowish Brown	Coarse sand		
E-4	A	25	0.82	10YR 4/2 Dark Grayish Brown	Silt Loam		
	B	115	3.77	2.5Y 4/4 olive Brown	Silty Clay Loam		Began auger testing at 63 cm dbs. Very compact.
	C	135	4.43	2.5Y 5/4 Light Olive Brown	Coarse sand		
E-5	A	20	0.66	10YR 4/3 Brown	Silt Loam		
	B	60	1.97	2.5Y 4/4 olive Brown	Silt Loam		Increasingly compact as depth increased.
	C	120	3.94	2.5Y 5/4 Light Olive Brown	Coarse sand		
E-6	A	26	0.85	10YR 4/2 Dark Grayish Brown	Silt Loam		
	B	130	4.26	2.5Y 5/4 Light Olive Brown	Silt Loam		Began auger testing at 85 cm dbs.
E-7	A	60	1.97	10YR 4/3 Brown	Silt Loam		Discarded beer bottle glass, coal and slag.
	B	160	5.25	2.5Y 4/4 olive Brown	Silt Loam		Began auger testing at 60 cm dbs.
F-1	A	20	0.66	10YR 4/3 Brown	Silt Loam		Discarded coal, slag and cinder.
	B	80	2.62	2.5Y 4/4 olive Brown	Silt Loam		Auger testing began at 65 cm dbs.
	C	120	3.94	10YR 4/4 Dark Yellowish Brown	Coarse sand	10 percent gravels	
F-2	A	25	0.82	10YR 4/3 Brown	Silt Loam		Discarded coal, slag and cinder.
	B	60	1.97	2.5Y 4/4 olive Brown	Silt Loam		
F-3	A	20	0.66	10YR 4/3 Brown	Silt Loam		
	B	100	3.28	2.5Y 4/4 Olive Brown	Silt Loam		Began auger testing at 65cm dbs

Phase I Solar BG, Berlin, VT

STP	Stratum	Depth to base of Stratum		Soil Color	Texture	Coarse Fraction	Comments
	C	115	3.77	10YR 4/4 Dark Yellowish Brown	Coarse sand	10 percent gravels	
F-4	A	30	0.98	10YR 4/3 Brown	Silt Loam		Discarded coal, cinder and iron slag.
	B	60	1.97	2.5Y 4/4 olive Brown	Silt Loam		
G-1	A	18	0.59	10YR 4/2 Dark Grayish Brown	Sandy Loam	15-20 percent gravels and cobbles	Auger testing at 65 cm dbs.
	B	90	2.95	2.5Y 4/4 olive Brown	Silt Loam	5 percent gravels	
	C	140	4.59	10YR 5/4 Yellowish Brown	Coarse sand		
G-2	A	26	0.85	10YR 4/2 Dark Grayish Brown	Sandy Loam		Pocket of 10YR 4/6 Dark Yellowish Brown at interface.
	B	56	1.84	2.5Y 4/4 olive Brown	Silt Loam		
G-3	A	30	0.98	10YR 4/2 Dark Grayish Brown	Sandy Loam		Pocket of 10YR 4/6 Dark Yellowish Brown at interface.
	B	60	1.97	2.5Y 4/4 olive Brown	Silt Loam		
G-4	A	30	0.98	10YR 4/2 Dark Grayish Brown mottled with 10YR 4/4 Dark Yellowish Brown	Silt Loam		Discarded coal at bottom of stratum.
	B	110	3.61	2.5Y 4/4 olive Brown	Silt Loam		Began auger testing at 60 cm dbs.
	C	120	3.94	2.5Y 4/4 olive Brown	Sand		
G-5	A	36	1.18	10YR 4/2 Dark Grayish Brown	Silt Loam		Pocket of 10YR 4/6 Dark Yellowish Brown at interface.
	B	64	2.10	2.5Y 4/4 olive Brown	Silt Loam		
G-6	A	29	0.95	10YR 4/2 Dark Grayish Brown	Silt Loam		
	B	60	1.97	2.5Y 4/4 olive Brown	Silt Loam		
H-1	A	29	0.95	10YR 4/2 Dark Grayish Brown	Silt Loam	10 percent gravels and large cobbles	
	B	44	1.44	10YR 5/3 Brown	Coarse sand	10 percent gravels	Began auger testing at 65 cm dbs.
	C	90	2.95	2.5Y 4/4 olive Brown	Silt Loam	5 percent gravels	
	D	140	4.59	10YR 4/3 Brown	Coarse sand		
I-1	A	103	3.38	10YR 4/4 Dark Yellowish Brown	Coarse sand	15-20 percent cobbles	Fill. Consists of small, smooth rounded cobbles.

Phase I Solar BG, Berlin, VT

STP	Stratum	Depth to base of Stratum		Soil Color	Texture	Coarse Fraction	Comments
I-2	A	100	3.28	10YR 4/4 Dark Yellowish Brown	Coarse sand	15-20 percent cobbles	Fill. Consists of small, smooth, rounded cobbles.
I-3	A	65	2.13	10YR 4/4 Dark Yellowish Brown	Coarse sand	15-20 percent cobbles	
	B	90	2.95	10YR 5/3 Brown	Coarse sand		
	C	105	3.44	10YR 5/3 Brown	Coarse sand	15 percent cobbles	Auger tested. Terminated due to impasse.
J-1	A	40	1.31	10YR 4/2 Dark Grayish Brown	Coarse sand	15-20 percent cobbles	
	B	60	1.97	2.5Y 4/4 olive Brown	Sand	10 percent gravels and cobbles	Discarded coal ash.
	C	135	4.43	10YR 5/3 Brown	Sand		Began auger testing at 105 cm dbs.
J-2	A	15	0.49	10YR 4/2 Dark Grayish Brown	Sandy Loam		
	B	23	0.75	10YR 4/4 Dark Yellowish Brown	Sand		
	C	49	1.61	10YR 3/2 Very Dark Grayish Brown	Sand		Discarded coal ash and slag. Buried A horizon.
	D	69	2.26	10YR 4/3 Brown	Sand		
J-3	A	19	0.62	10YR 4/2 Dark Grayish Brown	Sandy Loam		
	B	29	0.95	10YR 5/3 Brown	Sand		
	C	50	1.64	10YR 4/2 Dark Grayish Brown	Silt Loam		Discarded coal ash and slag. Buried A horizon.
	D	130	4.26	10YR 4/3 Brown	Sand		Began auger testing at 70 cm dbs.
J-4	A	24	0.79	10YR 4/2 Dark Grayish Brown	Sandy Loam		
	B	30	0.98	10YR 5/3 Brown	Sand		
	C	120	3.94	10YR 4/2 Dark Grayish Brown	Silt Loam		Discarded coal ash and slag. Buried A horizon.
	D	130	4.26	10YR 5/2 Grayish Brown	Sand		Began auger testing at 70 cm dbs.
J-5	A	27	0.89	10YR 4/3 Brown	Sandy Loam		Discarded coal ash and slag.
	B	35	1.15	10YR 5/3 Brown	Sand		Discarded coal ash and slag.
	C	50	1.64	10YR 4/2 Dark Grayish Brown	Silt Loam		Discarded coal ash and slag.
	D	60	1.97	10YR 3/1 Dark Gray	Sand		Thin band of charcoal/coal ash.
	E	145	4.76	10YR 4/2 Dark Grayish Brown	Silt Loam		Began auger testing at 100 cm dbs.
	F	157	5.15	10YR 5/3 Brown	Sand		Small gravels.
K-1	A	35	1.15	10YR 4/2 Dark Grayish Brown	Sandy Loam		Discarded modern glass and coal ash.
	B	50	1.64	10YR 3/2 Very Dark Grayish Brown	Sand		Discarded modern glass and coal ash.
	C	150	4.92	10YR 4/2 Dark Grayish Brown	Sandy Loam		Began auger testing at 100 cm dbs.

Phase I Solar BG, Berlin, VT

STP	Stratum	Depth to base of Stratum		Soil Color	Texture	Coarse Fraction	Comments
	D	170	5.58	10YR 4/2 Dark Grayish Brown	Sand		Terminated due to rock impasse.
K-2	A	30	0.98	10YR 4/2 Dark Grayish Brown	Sandy Loam		
	B	45	1.48	10YR 5/3 Brown	Sand		
	C	96	3.15	10YR 4/2 Dark Grayish Brown	Sandy Loam		Discarded coal ash, glass and plastic.
	D	130	4.26	10YR 4/3 Brown	Sandy Loam		Auger tested.
K-3	A	30	0.98	10YR 4/2 Dark Grayish Brown	Sandy Loam		
	B	46	1.51	10YR 5/3 Brown	Sand		Discarded glass, vinyl and coal ash.
	C	56	1.84	10YR 4/2 Dark Grayish Brown	Sandy Loam		Discarded mortar.
	D	62	2.03	10YR 5/3 Brown	Sand		
	E	170	5.58	10YR 4/3 Brown	Sandy Loam		Began auger testing at 100 cm dbs.
	F	200	6.56	10YR 5/3 Brown	Coarse sand		Gravels and iron inclusions
K-4	A	26	0.85	10YR 4/2 Dark Grayish Brown	Silt Loam		
	B	33	1.08	10YR 5/3 Brown	Coarse sand		
	C	46	1.51	10YR 4/2 Dark Grayish Brown	Silt Loam		
	D	53	1.74	10YR 4/2 Dark Grayish Brown	Coarse sand		Discarded coal ash and slag
	E	60	1.97	10YR 4/2 Dark Grayish Brown	Sand		
	F	67	2.20	10YR 5/3 Brown	Sand		
	G	160	5.25	2.5Y 3/2 grayish brown	Sand		
	H	193	6.33	10YR 4/3 Brown	Coarse sand		
K-5	A	51	1.67	10YR 4/2 Dark Grayish Brown	Silt Loam		
	B	61	2.00	10YR 4/2 Dark Grayish Brown with pockets of 10YR 5/3 Brown	Coarse sand		Discarded coal ash and slag
	C	120	3.94	10YR 4/2 Dark Grayish Brown	Coarse sand		Discarded coal and slag.
	D	150	4.92	10YR 4/3 Brown	Coarse sand		
	E	170	5.58	10YR 4/3 Brown	Coarse sand		Gravels and iron inclusions.
L-1	A	10	0.33	10YR 4/3 Brown	Coarse sand	20-25 percent cobbles	Fill
	B	20	0.66	10YR 3/6 Dark Yellowish Brown	Coarse sand	20-25 percent cobbles	Fill
	C	30	0.98	2.5Y 5/6 Light Olive Brown	Coarse sand	20-25 percent cobbles	Fill
	D	55	1.80	2.5Y5/3 Light Olive Brown	Coarse sand	20-25 percent cobbles	Fill
L-2	A	13	0.43	10YR 4/3 Brown	Coarse sand	10 percent gravels	Fill
	B	23	0.75	2.5Y 5/2 Grayish Brown	Coarse sand	10 percent gravels	Fill
	C	60	1.97	10YR 4/2 Dark Grayish Brown	Coarse sand	15-20 percent gravels	Fill
M-1	A	27	0.89	10YR 4/3 Brown	Silt Loam	15-20 percent gravels	

Phase I Solar BG, Berlin, VT

STP	Stratum	Depth to base of Stratum		Soil Color	Texture	Coarse Fraction	Comments
	B	34	1.12	10YR 4/6 Dark Yellowish Brown	Silt Loam	10 percent gravels	
	C	55	1.80	10YR 5/2 Grayish brown	Silt Loam	10 percent gravels	Very compact
	D	70	2.30	10YR 4/3 Brown	Coarse sand	10 percent gravels	Auger tested. Terminated due to rock impasse.



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