

Field data

Demo — 1823 Chapman Hwy · Sevier County, TN

CLIENT	Sample project	PARCEL	060 111.00
SITE ADDRESS	—	ACREAGE	19.42
PREPARED BY	Sample data, not attributed	JOB NO.	DEMO

OBSERVATIONS

LABEL	KIND	HORIZONS	RESTRICTIVE	SHWT	PERC	PHOTOS
B-1	boring	5	—	—	—	—
B-2	boring	5	—	—	—	—
B-3	boring	5	—	—	—	—
B-4	boring	4	20"	20"	—	—
B-5	boring	4	20"	20"	—	—
B-6	boring	3	13"	—	—	—
B-7	boring	3	13"	—	—	—
B-8	boring	3	13"	—	—	—
B-9	boring	3	13"	—	—	—
P-1	perc test	—	—	—	30 mpi	—
P-2	perc test	—	—	—	33 mpi	—
P-3	perc test	—	—	—	31 mpi	—
TP-1	test pit	5	—	—	—	—
TP-2	test pit	4	13"	—	—	—

B-1

35.860721, -83.618936

SOP NO.	TDEC SOP-2 auger description
DESCRIBED BY	Sample data, not a field description
SITE NAME	1823 Chapman Hwy (demonstration)
SOIL SERIES	Emory
DRAINAGE CLASS	WD
TAXONOMY	Fine-silty, mixed, active, thermic Fluventic Dystrudepts
PARENT MATERIAL	Colluvium derived from shale and siltstone
LANDFORM	Colluvial footslope bench
SLOPE %	11.9
EROSION	None apparent
LAND COVER	Mixed hardwood, mowed edge
VEGETATION	Mixed hardwood, mowed edge
PHYSIOGRAPHIC LOCATION	Ridge and Valley, colluvial footslope
GEOMORPHIC DESCRIPTION	Footslope bench formed in colluvium at the base of a shale hillside, above the floodplain.
WATER TABLE	None observed to 60 in.

HORIZONS							
DEPTH	HZN	MATRIX	TEXTURE	STRUCTURE	CONSISTENCE	BOUNDARY	REDOX
0–8"	Ap	10YR 4/3	Silt loam	Moderate Medium Granular	Very friable	Clear (2-5 cm) Smooth	—
8–15"	A	10YR 4/4	Silt loam	Moderate Medium Subangular blocky	Very friable	Clear (2-5 cm) Smooth	—
15–28"	Bw1	10YR 5/6	Silt loam	Moderate Medium Subangular blocky	Friable	Gradual (5-15 cm) Smooth	—
28–44"	Bw2	10YR 5/6	Silty clay loam	Moderate Coarse Subangular blocky	Friable	Gradual (5-15 cm) Smooth	—
44–60"	BC	10YR 5/4	channery Silt loam	Weak Coarse Subangular blocky	Friable	—	—

BC: Colluvial fragments increase with depth. No restrictive feature to 60 in.

B-2

35.860449, -83.619194

SOP NO.	TDEC SOP-2 auger description
DESCRIBED BY	Sample data, not a field description
SITE NAME	1823 Chapman Hwy (demonstration)
SOIL SERIES	Emory
DRAINAGE CLASS	WD
TAXONOMY	Fine-silty, mixed, active, thermic Fluventic Dystrudepts
PARENT MATERIAL	Colluvium derived from shale and siltstone
LANDFORM	Colluvial footslope bench
SLOPE %	12.4
EROSION	None apparent
LAND COVER	Mixed hardwood, mowed edge
VEGETATION	Mixed hardwood, mowed edge
PHYSIOGRAPHIC LOCATION	Ridge and Valley, colluvial footslope
GEOMORPHIC DESCRIPTION	Footslope bench formed in colluvium at the base of a shale hillside, above the floodplain.
WATER TABLE	None observed to 60 in.

HORIZONS							
DEPTH	HZN	MATRIX	TEXTURE	STRUCTURE	CONSISTENCE	BOUNDARY	REDOX
0–8"	Ap	10YR 4/3	Silt loam	Moderate Medium Granular	Very friable	Clear (2-5 cm) Smooth	—
8–15"	A	10YR 4/4	Silt loam	Moderate Medium Subangular blocky	Very friable	Clear (2-5 cm) Smooth	—
15–28"	Bw1	10YR 5/6	Silt loam	Moderate Medium Subangular blocky	Friable	Gradual (5-15 cm) Smooth	—
28–44"	Bw2	10YR 5/6	Silty clay loam	Moderate Coarse Subangular blocky	Friable	Gradual (5-15 cm) Smooth	—
44–60"	BC	10YR 5/4	channery Silt loam	Weak Coarse Subangular blocky	Friable	—	—

BC: Colluvial fragments increase with depth. No restrictive feature to 60 in.

B-3

35.860736, -83.619163

SOP NO.	TDEC SOP-2 auger description
DESCRIBED BY	Sample data, not a field description
SITE NAME	1823 Chapman Hwy (demonstration)
SOIL SERIES	Emory
DRAINAGE CLASS	WD
TAXONOMY	Fine-silty, mixed, active, thermic Fluventic Dystrudepts
PARENT MATERIAL	Colluvium derived from shale and siltstone
LANDFORM	Colluvial footslope bench
SLOPE %	9.8
EROSION	None apparent
LAND COVER	Mixed hardwood, mowed edge
VEGETATION	Mixed hardwood, mowed edge
PHYSIOGRAPHIC LOCATION	Ridge and Valley, colluvial footslope
GEOMORPHIC DESCRIPTION	Footslope bench formed in colluvium at the base of a shale hillside, above the floodplain.
WATER TABLE	None observed to 60 in.

HORIZONS							
DEPTH	HZN	MATRIX	TEXTURE	STRUCTURE	CONSISTENCE	BOUNDARY	REDOX
0–8"	Ap	10YR 4/3	Silt loam	Moderate Medium Granular	Very friable	Clear (2-5 cm) Smooth	—
8–15"	A	10YR 4/4	Silt loam	Moderate Medium Subangular blocky	Very friable	Clear (2-5 cm) Smooth	—
15–28"	Bw1	10YR 5/6	Silt loam	Moderate Medium Subangular blocky	Friable	Gradual (5-15 cm) Smooth	—
28–44"	Bw2	10YR 5/6	Silty clay loam	Moderate Coarse Subangular blocky	Friable	Gradual (5-15 cm) Smooth	—
44–60"	BC	10YR 5/4	channery Silt loam	Weak Coarse Subangular blocky	Friable	—	—

BC: Colluvial fragments increase with depth. No restrictive feature to 60 in.

B-4

35.860491, -83.618677

SOP NO.	TDEC SOP-2 auger description
DESCRIBED BY	Sample data, not a field description
SITE NAME	1823 Chapman Hwy (demonstration)
SOIL SERIES	Steadman
DRAINAGE CLASS	MWD
TAXONOMY	Fine-silty, mixed, active, thermic Fluvaquentic Eutrudepts
PARENT MATERIAL	Alluvium derived from shale, siltstone and limestone
LANDFORM	Flood plain
SLOPE %	5.3
EROSION	None apparent
LAND COVER	Fescue, scattered sycamore
VEGETATION	Fescue, scattered sycamore
PHYSIOGRAPHIC LOCATION	Ridge and Valley, flood plain
GEOMORPHIC DESCRIPTION	Nearly level flood plain along an intermittent drainage.
WATER TABLE	Seasonal high water table at about 20 in, inferred from depletions.
NOTES	Typifying pedon for the delineation.

HORIZONS

DEPTH	HZN	MATRIX	TEXTURE	STRUCTURE	CONSISTENCE	BOUNDARY	REDOX
0–9"	Ap	10YR 4/2	Silt loam	Moderate Medium Granular	Very friable	Clear (2-5 cm) Smooth	—
9–20"	Bw	10YR 5/3	Silt loam	Moderate Medium Subangular blocky	Friable	Clear (2-5 cm) Smooth	—
20–34"	Bg1	10YR 5/2	Silty clay loam	Moderate Medium Subangular blocky	Firm	Gradual (5-15 cm) Smooth	—
34–60"	Cg	10YR 5/2	Silt loam	Structureless Massive	Firm	—	—

Bw: Few fine distinct redox concentrations, 7.5YR 5/8, in the lower 3 in. · Bg1: Low chroma matrix with common medium distinct depletions.
Seasonal high water table.

B-5

35.860770, -83.618701

SOP NO.	TDEC SOP-2 auger description
DESCRIBED BY	Sample data, not a field description
SITE NAME	1823 Chapman Hwy (demonstration)
SOIL SERIES	Steadman
DRAINAGE CLASS	MWD
TAXONOMY	Fine-silty, mixed, active, thermic Fluvaquentic Eutrudepts
PARENT MATERIAL	Alluvium derived from shale, siltstone and limestone
LANDFORM	Flood plain
SLOPE %	2
EROSION	None apparent
LAND COVER	Fescue, scattered sycamore
VEGETATION	Fescue, scattered sycamore
PHYSIOGRAPHIC LOCATION	Ridge and Valley, flood plain
GEOMORPHIC DESCRIPTION	Nearly level flood plain along an intermittent drainage.
WATER TABLE	Seasonal high water table at about 20 in, inferred from depletions.

HORIZONS							
DEPTH	HZN	MATRIX	TEXTURE	STRUCTURE	CONSISTENCE	BOUNDARY	REDOX
0–9"	Ap	10YR 4/2	Silt loam	Moderate Medium Granular	Very friable	Clear (2-5 cm) Smooth	—
9–20"	Bw	10YR 5/3	Silt loam	Moderate Medium Subangular blocky	Friable	Clear (2-5 cm) Smooth	—
20–34"	Bg1	10YR 5/2	Silty clay loam	Moderate Medium Subangular blocky	Firm	Gradual (5-15 cm) Smooth	—
34–60"	Cg	10YR 5/2	Silt loam	Structureless Massive	Firm	—	—

Bw: Few fine distinct redox concentrations, 7.5YR 5/8, in the lower 3 in. · Bg1: Low chroma matrix with common medium distinct depletions.
Seasonal high water table.

B-6

35.858104, -83.619455

SOP NO.	TDEC SOP-2 auger description
DESCRIBED BY	Sample data, not a field description
SITE NAME	1823 Chapman Hwy (demonstration)
SOIL SERIES	Litz
DRAINAGE CLASS	WD
TAXONOMY	Loamy-skeletal, mixed, active, thermic Ruptic-Ultic Dystrudepts
PARENT MATERIAL	Residuum weathered from shale
LANDFORM	Backslope
SLOPE %	12.9
EROSION	Slight sheet erosion, fragments at the surface
LAND COVER	Mixed hardwood
VEGETATION	Mixed hardwood
PHYSIOGRAPHIC LOCATION	Ridge and Valley, hillslope backslope
GEOMORPHIC DESCRIPTION	Shale backslope, convex, with rock fragments at the surface.
WATER TABLE	None observed above the paralithic contact.

HORIZONS							
DEPTH	HZN	MATRIX	TEXTURE	STRUCTURE	CONSISTENCE	BOUNDARY	REDOX
0–4"	A	10YR 4/3	channery Silt loam	Moderate Fine Granular	Very friable	Clear (2-5 cm) Smooth	—
4–13"	Bw	10YR 5/6	channery Silt loam	Moderate Medium Subangular blocky	Friable	Clear (2-5 cm) Wavy	—
13–19"	Cr	10YR 5/4	very channery Silt loam	Structureless Massive	Firm	Abrupt (0.5-2 cm) Irregular	—

Cr: Weathered shale, augers with difficulty.

B-7

35.857459, -83.619292

SOP NO.	TDEC SOP-2 auger description
DESCRIBED BY	Sample data, not a field description
SITE NAME	1823 Chapman Hwy (demonstration)
SOIL SERIES	Litz
DRAINAGE CLASS	WD
TAXONOMY	Loamy-skeletal, mixed, active, thermic Ruptic-Ultic Dystrudepts
PARENT MATERIAL	Residuum weathered from shale
LANDFORM	Backslope
SLOPE %	18
EROSION	Slight sheet erosion, fragments at the surface
LAND COVER	Mixed hardwood
VEGETATION	Mixed hardwood
PHYSIOGRAPHIC LOCATION	Ridge and Valley, hillslope backslope
GEOMORPHIC DESCRIPTION	Shale backslope, convex, with rock fragments at the surface.
WATER TABLE	None observed above the paralithic contact.

HORIZONS							
DEPTH	HZN	MATRIX	TEXTURE	STRUCTURE	CONSISTENCE	BOUNDARY	REDOX
0–4"	A	10YR 4/3	channery Silt loam	Moderate Fine Granular	Very friable	Clear (2-5 cm) Smooth	—
4–13"	Bw	10YR 5/6	channery Silt loam	Moderate Medium Subangular blocky	Friable	Clear (2-5 cm) Wavy	—
13–19"	Cr	10YR 5/4	very channery Silt loam	Structureless Massive	Firm	Abrupt (0.5-2 cm) Irregular	—

Cr: Weathered shale, augers with difficulty.

B-8

35.859830, -83.618763

SOP NO.	TDEC SOP-2 auger description
DESCRIBED BY	Sample data, not a field description
SITE NAME	1823 Chapman Hwy (demonstration)
SOIL SERIES	Litz
DRAINAGE CLASS	WD
TAXONOMY	Loamy-skeletal, mixed, active, thermic Ruptic-Ultic Dystrudepts
PARENT MATERIAL	Residuum weathered from shale
LANDFORM	Backslope
SLOPE %	46.9
EROSION	Slight sheet erosion, fragments at the surface
LAND COVER	Mixed hardwood
VEGETATION	Mixed hardwood
PHYSIOGRAPHIC LOCATION	Ridge and Valley, hillslope backslope
GEOMORPHIC DESCRIPTION	Steep shale backslope with frequent surface stone.
WATER TABLE	None observed above the paralithic contact.
NOTES	Typifying pedon for the delineation.

HORIZONS

DEPTH	HZN	MATRIX	TEXTURE	STRUCTURE	CONSISTENCE	BOUNDARY	REDOX
0–4"	A	10YR 4/3	channery Silt loam	Moderate Fine Granular	Very friable	Clear (2-5 cm) Smooth	—
4–13"	Bw	10YR 5/6	channery Silt loam	Moderate Medium Subangular blocky	Friable	Clear (2-5 cm) Wavy	—
13–19"	Cr	10YR 5/4	very channery Silt loam	Structureless Massive	Firm	Abrupt (0.5-2 cm) Irregular	—

Cr: Weathered shale, augers with difficulty.

B-9

35.860032, -83.619715

SOP NO.	TDEC SOP-2 auger description
DESCRIBED BY	Sample data, not a field description
SITE NAME	1823 Chapman Hwy (demonstration)
SOIL SERIES	Litz
DRAINAGE CLASS	WD
TAXONOMY	Loamy-skeletal, mixed, active, thermic Ruptic-Ultic Dystrudepts
PARENT MATERIAL	Residuum weathered from shale
LANDFORM	Backslope
SLOPE %	33
EROSION	Slight sheet erosion, fragments at the surface
LAND COVER	Mixed hardwood
VEGETATION	Mixed hardwood
PHYSIOGRAPHIC LOCATION	Ridge and Valley, hillslope backslope
GEOMORPHIC DESCRIPTION	Steep shale backslope with frequent surface stone.
WATER TABLE	None observed above the paralithic contact.

HORIZONS							
DEPTH	HZN	MATRIX	TEXTURE	STRUCTURE	CONSISTENCE	BOUNDARY	REDOX
0–4"	A	10YR 4/3	channery Silt loam	Moderate Fine Granular	Very friable	Clear (2-5 cm) Smooth	—
4–13"	Bw	10YR 5/6	channery Silt loam	Moderate Medium Subangular blocky	Friable	Clear (2-5 cm) Wavy	—
13–19"	Cr	10YR 5/4	very channery Silt loam	Structureless Massive	Firm	Abrupt (0.5-2 cm) Irregular	—

Cr: Weathered shale, augers with difficulty.

P-1

35.860784, -83.619674

SOP NO.	TDEC SOP-2 auger description
DESCRIBED BY	Sample data, not a field description
SITE NAME	1823 Chapman Hwy (demonstration)
SOIL SERIES	Emory
DRAINAGE CLASS	WD
TAXONOMY	Fine-silty, mixed, active, thermic Fluventic Dystrudepts
PARENT MATERIAL	Colluvium derived from shale and siltstone
LANDFORM	Colluvial footslope bench
SLOPE %	12.2
EROSION	None apparent
LAND COVER	Mixed hardwood, mowed edge
VEGETATION	Mixed hardwood, mowed edge
PHYSIOGRAPHIC LOCATION	Ridge and Valley, colluvial footslope
GEOMORPHIC DESCRIPTION	Footslope bench formed in colluvium at the base of a shale hillside, above the floodplain.
WATER TABLE	None observed to 60 in.

PERCOLATION TEST

HOLE	6" dia · 36" deep · test at 30"	PRESOAK	240 min
RESULT	30 mpi (final reading)	OUTCOME	Passed
WITNESS	—	CONDUCTED BY	soil scientist

#	INTERVAL	START	END	DROP	RATE
1	30 min	6	4.7	1.3	23 mpi
2	30 min	6	4.8	1.2	25 mpi
3	30 min	6	4.85	1.15	26 mpi
4	30 min	6	4.9	1.1	27 mpi
5	30 min	6	4.95	1.05	29 mpi
6	30 min	6	4.98	1.02	29 mpi
7	30 min	6	5	1	30 mpi
8	30 min	6	5	1	30 mpi

P-2

35.860583, -83.618746

SOP NO.	TDEC SOP-2 auger description
DESCRIBED BY	Sample data, not a field description
SITE NAME	1823 Chapman Hwy (demonstration)
SOIL SERIES	Emory
DRAINAGE CLASS	WD
TAXONOMY	Fine-silty, mixed, active, thermic Fluventic Dystrudepts
PARENT MATERIAL	Colluvium derived from shale and siltstone
LANDFORM	Colluvial footslope bench
SLOPE %	13.3
EROSION	None apparent
LAND COVER	Mixed hardwood, mowed edge
VEGETATION	Mixed hardwood, mowed edge
PHYSIOGRAPHIC LOCATION	Ridge and Valley, colluvial footslope
GEOMORPHIC DESCRIPTION	Footslope bench formed in colluvium at the base of a shale hillside, above the floodplain.
WATER TABLE	None observed to 60 in.

PERCOLATION TEST

HOLE	6" dia · 36" deep · test at 30"		PRESOAK	240 min	
RESULT	33 mpi (final reading)		OUTCOME	Passed	
WITNESS	—		CONDUCTED BY	soil scientist	
#	INTERVAL	START	END	DROP	RATE
1	30 min	6	4.75	1.25	24 mpi
2	30 min	6	4.85	1.15	26 mpi
3	30 min	6	4.95	1.05	29 mpi
4	30 min	6	5	1	30 mpi
5	30 min	6	5.05	0.95	32 mpi
6	30 min	6	5.07	0.93	32 mpi
7	30 min	6	5.09	0.91	33 mpi
8	30 min	6	5.09	0.91	33 mpi

P-3

35.860478, -83.618955

SOP NO.	TDEC SOP-2 auger description
DESCRIBED BY	Sample data, not a field description
SITE NAME	1823 Chapman Hwy (demonstration)
SOIL SERIES	Emory
DRAINAGE CLASS	WD
TAXONOMY	Fine-silty, mixed, active, thermic Fluventic Dystrudepts
PARENT MATERIAL	Colluvium derived from shale and siltstone
LANDFORM	Colluvial footslope bench
SLOPE %	13.8
EROSION	None apparent
LAND COVER	Mixed hardwood, mowed edge
VEGETATION	Mixed hardwood, mowed edge
PHYSIOGRAPHIC LOCATION	Ridge and Valley, colluvial footslope
GEOMORPHIC DESCRIPTION	Footslope bench formed in colluvium at the base of a shale hillside, above the floodplain.
WATER TABLE	None observed to 60 in.

PERCOLATION TEST

HOLE	6" dia · 36" deep · test at 30"		PRESOAK	240 min	
RESULT	31 mpi (final reading)		OUTCOME	Passed	
WITNESS	—		CONDUCTED BY	soil scientist	
#	INTERVAL	START	END	DROP	RATE
1	30 min	6	4.65	1.35	22 mpi
2	30 min	6	4.75	1.25	24 mpi
3	30 min	6	4.85	1.15	26 mpi
4	30 min	6	4.92	1.08	28 mpi
5	30 min	6	4.98	1.02	29 mpi
6	30 min	6	5.01	0.99	30 mpi
7	30 min	6	5.03	0.97	31 mpi
8	30 min	6	5.03	0.97	31 mpi

TP-1

35.860749, -83.619396

PIT NO.	TP-1
SOP NO.	TDEC SOP-1 pit description
DESCRIBED BY	Sample data, not a field description
SITE NAME	1823 Chapman Hwy (demonstration)
SOIL SERIES	Emory
DRAINAGE CLASS	WD
TAXONOMY	Fine-silty, mixed, active, thermic Fluventic Dystrudepts
PARENT MATERIAL	Colluvium derived from shale and siltstone
LANDFORM	Colluvial footslope bench
SLOPE %	7.5
EROSION	None apparent
LAND COVER	Mixed hardwood, mowed edge
VEGETATION	Mixed hardwood, mowed edge
PHYSIOGRAPHIC LOCATION	Ridge and Valley, colluvial footslope
GEOMORPHIC DESCRIPTION	Footslope bench formed in colluvium at the base of a shale hillside, above the floodplain.
WATER TABLE	None observed to 60 in.
NOTES	Typifying pedon for the delineation.

HORIZONS

DEPTH	HZN	MATRIX	TEXTURE	STRUCTURE	CONSISTENCE	BOUNDARY	REDOX
0–8"	Ap	10YR 4/3	Silt loam	Moderate Medium Granular	Very friable	Clear (2-5 cm) Smooth	—
8–15"	A	10YR 4/4	Silt loam	Moderate Medium Subangular blocky	Very friable	Clear (2-5 cm) Smooth	—
15–28"	Bw1	10YR 5/6	Silt loam	Moderate Medium Subangular blocky	Friable	Gradual (5-15 cm) Smooth	—
28–44"	Bw2	10YR 5/6	Silty clay loam	Moderate Coarse Subangular blocky	Friable	Gradual (5-15 cm) Smooth	—
44–60"	BC	10YR 5/4	channery Silt loam	Weak Coarse Subangular blocky	Friable	—	—

BC: Colluvial fragments increase with depth. No restrictive feature to 60 in.

TP-2

35.859043, -83.620118

PIT NO.	TP-2
SOP NO.	TDEC SOP-1 pit description
DESCRIBED BY	Sample data, not a field description
SITE NAME	1823 Chapman Hwy (demonstration)
SOIL SERIES	Litz
DRAINAGE CLASS	WD
TAXONOMY	Loamy-skeletal, mixed, active, thermic Ruptic-Ultic Dystrudepts
PARENT MATERIAL	Residuum weathered from shale
LANDFORM	Backslope
SLOPE %	16
EROSION	Slight sheet erosion, fragments at the surface
LAND COVER	Mixed hardwood
VEGETATION	Mixed hardwood
PHYSIOGRAPHIC LOCATION	Ridge and Valley, hillslope backslope
GEOMORPHIC DESCRIPTION	Shale backslope, convex, with rock fragments at the surface.
WATER TABLE	None observed above the paralithic contact.
NOTES	Typifying pedon for the delineation.

HORIZONS

DEPTH	HZN	MATRIX	TEXTURE	STRUCTURE	CONSISTENCE	BOUNDARY	REDOX
0–4"	A	10YR 4/3	channery Silt loam	Moderate Fine Granular	Very friable	Clear (2-5 cm) Smooth	—
4–13"	Bw	10YR 5/6	channery Silt loam	Moderate Medium Subangular blocky	Friable	Clear (2-5 cm) Wavy	—
13–19"	Cr	10YR 5/4	very channery Silt loam	Structureless Massive	Firm	Abrupt (0.5-2 cm) Irregular	—
19–22"	R	—	—	—	—	—	—

Cr: Weathered shale, augers with difficulty. · R: Hard shale. Refusal.