

finger nail, thin sandy lenses, top 0.5' weathered to gravel, the rest is pieces from 0.2' to 0.4' long, fractured, some iron stains, fractured at 90° to bedding and along bedding, occasional 0.1' lenses of olive siltstone, becomes more sandy & harder with depth, up to 30% very fine sand & difficult to scratch with fingernail, not weathered below 15.0', badly fractured at 27.0' to 27.5' and 29.0' to 30.0'.

DL 307, ELEV. 767.5, 7400, 220' U.S.
Logged by: H. R. Marien 1/5/66
Drilling Equipment: Sprague & Henwood 40 CL

Table with columns: Hole Depth, Description of Materials, Unif. Soil Class, STANDARD PENETRATION (Blows Per Ft., Used No., Type), SAMPLES (From To, % Rec.).

DL 308, ELEV. 783.1, 6490, 180' U.S.
Logged by: H. R. Marien 1/6, 7 & 10/66
Drilling Equipment: Sprague & Henwood 40 CL

Table with columns: Hole Depth, Description of Materials, Unif. Soil Class, STANDARD PENETRATION, SAMPLES. Includes note: Angle hole at 60° angle from vertical; bearing 88°W.

DL 309A, ELEV. 781.5, 7400, 180' U.S.
Logged by: H. R. Marien 1/11/66
Drilling Equipment: Sprague & Henwood 40 CL

Table with columns: Hole Depth, Description of Materials, Unif. Soil Class, STANDARD PENETRATION, SAMPLES. Includes note: Samples 1 through 5 jar type.

DL 309, ELEV. 776.0, 7400, Centerline
Logged by: H. R. Marien 1/17/66
Drilling Equipment: Sprague & Henwood 40 CL

Table with columns: Hole Depth, Description of Materials, Unif. Soil Class, STANDARD PENETRATION, SAMPLES. Includes note: Samples 1 through 5 jar type.

DL 601, ELEV. 767.5, 7430, 150' U.S.

0.0 0.4 Roots, etc.
0.4 3.0 Silt, brn, wet, low-nonplastic, alluvial, trace cobbles.
3.0 3.6 Shale, excavates as gravel & cobbles, 50% cobbles; matrix is: 70% gravel, 15% sand, 15% fines, weathered, gray with orange streaks.

DL 602, ELEV. 766.5, 7470, 150' U.S.

0.0 1.0 Topsoil, roots, etc.
1.0 2.0 Sand, gravel with silt, brn, wet, well graded, 15% low plastic fines, 30% gravel, well graded.
2.0 6.4 Gravel, cobbles & sand, brn, wet, 20% cobbles, 30 small boulders, all are disks; matrix is: 50% well graded gravel, 15% fines, and 35% sand.
6.4 Refusal in shale, wet.

DL 603, ELEV. 789.9, 6430, 70' U.S.

0.0 12.0 Gravel, sandy with silt & cobbles, lt. brn, moist, 50% cobbles; matrix is: 20% low plastic fines, 25% sand, 55% angular gravel which is olive gray siltstone, thin pieces can be broken with fingers.
12.0 15.0 Siltstone, weathered, grayish olive, 40% sand size pieces, the rest are gravel size, orange staining, thin clay seams.
15.0 26.5 Siltstone, weathered slightly, gray, vertical fractures, orange stains, 60% of core gravel size particles, can be scratched with fingernail, largest piece 1.0' long, dip of 65°, becomes less weathered below 21.0' - pieces from 2.1 to 0.6' long, orange staining contains 20% very fine sand from 25.0' to 26.0' which cannot be scratched with fingernail.
26.5 30.0 Siltstone, slightly weathered, olive with some gray, gravel size pieces, lt. orange to brn staining, pieces are durable, possibly broken by drilling, fractures along bedding.
30.0 32.0 Siltstone, gray, unweathered, very lt. orange staining along bedding, pieces from 1.0 to 0.1' long, broken to fine gravel size by drilling, fractures parallel to beds, dip of 65° durable.
WL (12/27/65) 5.0' WL (12/28/65) 5.0'

DL 604, ELEV. 777.2, 7460, 170' U.S.
Logged by: H. R. Marien 12/28/65
Drilling Equipment: Sprague & Henwood 40 CL

0.0 0.8 Topsoil, roots, etc.
0.8 2.8 Silt, clayey & sandy, brn, moist, 10% gravel, 10% sand, moderately plastic fines, coarse particles olive siltstone.
2.8 8.8 Siltstone, weathered with clay seams, red-brn, core at 45° into wedge shaped pieces 0.1' long, moderately durable, black staining, pieces from 0.1' to 0.8' long, interbedded with gray siltstone near contact, can be scratched with fingernail with difficulty.
8.8 23.0 Siltstone, slightly weathered, olive gray to gray, pieces from 0.3' to 1.0' long, badly broken some from 17.2' to 18.5', can be scratched with fingernail easily.

DL 605, ELEV. 782.5, 9405, 135' U.S.
Logged by: H. R. Marien 12/29/65
Drilling Equipment: Sprague & Henwood 40 CL

0.0 0.8 Topsoil, roots, etc., scraped away by bulldozer.
0.8 3.0 Silt, sandy with gravel, lt. brn, wet, fines are low plastic, 20% well graded sand, 25% gravel.
At 60° from vertical
3.0 7.0 Sandstone, weathered, med. to fine grained, olive gray to gray, vague bedding, 60% of core is sand size, largest pieces are 0.1' thick.
7.0 14.5 Siltstone, weathered, reddish-brn with occasional streaks of gray, mud seams, highly fractured, pieces from 0.1' to 0.9' long, up to 25% very fine sand, can be scratched with fingernail.
14.5 18.5 Siltstone, weathered, olive-gray to gray, can be scratched with fingernail, fractured pieces from 0.1' to 0.2' long, both horizontal & vertical fractures, apparent dip of 10°, heavy iron stains.
18.5 49.0 Siltstone, weathered, gray, fissile, occasional sandy lenses, fractured, some zones weathered to sand size, heavy iron stains, difficult to scratch with fingernail, pieces from 0.1 to 0.4' long, 0.5' lenses of brn-gray sandstone at 43.0'.
Bottom of hole.

SAMPLES From To
Type Ft. Ft.

1 Bag 0.5 3.0

SAMPLES From To
Type Ft. Ft.

1 Bag 1.0 2.0
2 Bag 3.0 6.4

SAMPLES From To
Type Ft. Ft.

X1 12.0 15.0 80
17.0 21.0 100
21.0 25.0 100
27.0 32.0 80

SAMPLES From To
Type Ft. Ft.

1 Jar 0.0 1.5 55
2 1.5 2.8 77
2.8 6.0 92
6.0 11.0 100
11.0 16.0 100
16.0 17.0 89
17.0 20.8 100
20.0 24.0 100

SAMPLES From To
Type Ft. Ft.

1 Jar 0.0 1.5 100
2 1.5 3.0 91
3 3.0 4.5 66
4 4.0 6.0 65
5 6.0 8.0 50
6 8.0 9.5 80
7 9.5 11.0 100
8 11.0 15.0 100
9 15.0 20.0 100
10 20.0 25.0 100
11 25.0 30.0 100
12 30.0 35.0 100
13 35.0 40.0 100
14 40.0 45.0 100
15 45.0 49.0 100

DL 606, ELEV. 811.0, 9445, 41' U.S.
Logged by: H. R. Marien 1/11/66
Drilling Equipment: Sprague & Henwood 40 CL

0.0 0.6 Forest litter, etc.
0.6 4.5 Sand, gravelly, brn, moist, 25% well graded gravel, 15% low plastic fines, coarse particles are olive siltstone.
4.5 37.0 Siltstone, highly weathered, olive, brn-olive from 9.0 to 14.0', soft, fractured, iron stains along fractures, pieces 0.1' to 0.8' long, occasional shaley cleavage, weathered to sand size from 14.0 to 15.0', 17.5 to 19.0' and occasional 0.1' thick zones, highly weathered to 0.1', gray siltstone 15.0' to 16.5' and 31.0 to 32.0', not fractured.
37.0 45.0 Siltstone, slightly weathered, gray, soft occasional fractures, iron stains, zones of highly weathered olive siltstone at 37.8 to 38.8, 39.5 to 40.0 and 40.5 to 2.0'. dip equals 60°. WL (1/11/66) 3.0 WL (1/11/66) 38.0

DL 607, ELEV. 782.0, 6480, 30' U.S.
Logged by: H. R. Marien 1/11/66
Drilling Equipment: Sprague & Henwood 40 CL

0.0 11.0 Earth boring
11.0 25.0 Siltstone, weathered, gray, slightly sandy in places, fractured parallel to bedding, pieces 0.1' to 0.2' long generally below 21.0' up to 1.0' long, highly weathered 18.5 to 20.0', occasional mud seams above 16.0', iron stains on all fractures. WL (1/12/66) 0.1' WL (1/13/66) 5.0'

DL 608, ELEV. 775.2, 8422, 110' U.S.
Logged by: H. R. Marien 1/12/66
Drilling Equipment: Sprague & Henwood 40 CL

0.0 0.6 Topsoil, forest litter, etc.
0.6 5.5 Silt, clayey, brn, lt. brn mottled, moist, 10% fine gravel, 10% sand alluvial, med. to low plastic.
5.5 7.5 Gravel, silty with sand, brn, moist 15% low plastic fines, 20% well graded sand, trace cobbles, gravel is well graded, coarser particles are gray, sandy siltstone, angular to subangular.
Angle hole at 60° from vertical; 38°
16.5 22.8 Siltstone, highly weathered, olive to gray olive, 40% core sand size, the rest is med. gravel size, no whole pieces, fractured heavy iron stains, classified as 6H.
22.8 42.0 Sandstone, med. grained, gray, slightly weathered, iron staining, fractured occasionally thin bedded to massive, pieces from 0.1 to 1.6' long, gray-dive above 25.0' very hard, below 5.0' becomes slightly silty, probably grades into gray siltstone. WL (1/14/66) 7.0' approx.

Soil descriptions and classifications are based on physical examination and may be subject to change following laboratory testing. The percentages of gravel, sand and fines in the matrix are estimated on the basis of 100% passing 4-inches.

For location of drill holes & test pits see sheets 2, 4, 7, 8, 9, & 10.

BRIAR CREEK WATERSHED FLOODWATER RETARDING DAM PA-498 COLUMBIA & LUZERNE COUNTIES, PENNSYLVANIA LOGS OF DRILL HOLES & TEST PITS U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE