

County: Dickenson
VDMR Well No. 1823

Well: Proposed Pound (Bartlick) Dam, Site D, hole 1
(John W. Flannagan Dam)

Farm:

Driller: Watkins (U. S. Corps of Engr. , contractor)

Location: Haysi quadrangle - approximate UTM, 380720 m. E and
4121410 m. N; about 3.4 miles northwest of Haysi and
adjacent to the Pound River 2.1 miles west of its confluence
with Russell Fork of the Big Sandy River.

Elevation: 1210.80 feet

Total depth: 50.00 feet

Started drilling: 4/11/40

Completed drilling: 4/12/40

Sample description by: R. S. Good, Virginia Division of Mineral Resources,
3/1/67

References: U. S. Engineer Office, Huntington, W. Va. , Report of
Core Boring, 4/12/40 and Design Memorandum No. 3 Geology and Soils
(2 volumes) for Ohio River Basin Pound Reservoir Project, U. S. Corps
of Engineers, Huntington, W. Va. , 1959.

GEOLOGIC SUMMARY

Depth (feet)	Thickness (feet)	Formation (and remarks)
0.0-1.6	1.6	Overburden
1.6-1.9	0.3	No core
1.9-50.0	48.1	Norton Formation: consists of siltstone and a 0.8 foot layer of siliceous limestone

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GEOLOGIC LOG

Depth (feet)	Thickness (feet)	Description
0.0-1.6	1.6	Overburden
1.6-1.9	0.3	No core
1.9-3.5	1.6	Siltstone: dark gray, fissile; alternating siltstone (4-6mm thick) and light gray sandstone (1 mm thick) laminae
3.5-4.3	0.8	Limestone: dark gray, massive to finely laminated; siliceous
4.3-23.3	19.0	Siltstone: similar to interval 1.9' to 3.5', dark gray, fissile with thin sandy laminae; calcareous at 8.4' to 8.5', 8.7' to 8.8', and 11.5' to 12.0'; slickensides at 23.3'
23.3-24.4	1.1	No core
24.4-40.3	15.9	Siltstone: black, fissile, with a few brown siderite-bearing layers that are 5 to 10 mm thick
40.3-50.0	9.7	Siltstone: black, gritty, slightly micaceous, poor fissility

UNITED STATES ENGINEER OFFICE
HUNTINGTON, W. VA.
OPERATION DIVISION
SURVEYS SECTION

Date 4/12/40

REPORT OF CORE BORING Sheet 1 of 3

UDMR Well No. 1823

Project Proposed Bartlick Dam, Site "D" POINTS W. 1.2 MILES.

Hole No. 1 Dia. 2-1/8" Location See Plans

Date started 4/11/40 Completed 4/12/40

Driller Watkins Inspector Davis

Type of drilling equipment used U.S.E.D. Core Drill

From Elev. 1210.80 To Elev. 1191.00 on this page.
Elev. of top of Hole 1210.80 Plan depth of Hole 50.00'
Elev. of top of rock 1209.20 Total overburden drilled 1.60'
Elev. bottom of Hole 1160.80 Total rock drilled 48.40'
Elev. of ground water None Total rock recovered 47.07'
Elev. of water lost None Total depth of Hole 50.00'
Elev. water regained None Deviation from plan depth None
Number of Core Boxes 3
Number of jar samples None

DETAIL OF LOG

Depth	Elev.	Sealo	Legend	Material Classification	Drilling Time Min./Ft.	Box No.	Remarks
0.00	1210.80						Top of Hole
1.60	1209.20			Broken rock and sand Top of Rock	0:10		Change
1.90	1208.90						Loss 0.30
				Med. hard dark gray shale with sandstone laminations	4:30	1	0.30 loss was chopped out
19.80	1191.00						

UNITED STATES ENGINEER OFFICE
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REPORT OF CORE BORING

Date 4/12/40

Sheet 2 of 3

Hole No. 1 From El. 1191.00 To El. 1163.0 on this page.

DETAIL OF LOG

Depth	Elev.	Scale	Legend	Material Classification	Drilling Time Min./Ft.	Box No.	Remarks		
19.80	1191.00					1			
20.87	1189.93			Med. hard dark gray shale with sandstone laminations		2	Bottom Box 1		
23.43	1187.37					2			
24.46	1186.34					2	Loss 1.03 Change		
				Hard dark gray shale	4:50	2			
39.94	1170.86								Bottom Box 2
40.25	1170.55							3	Change
				Hard dark gray sandy shale	1:35	3			
47.80	1163.00								

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Location: Haysi quadrangle - approximate UTM, 380720 m. E
and 4121410 m. N; about 3.4 miles northwest of Haysi and
~~2.1 miles west of the confluence of Pound River with Russell
Fork~~

adjacent to the Pound River 2.1 miles west of its confluence
with Russell Fork of the Big Sandy River.

Elevation: 1210.80 feet

Total depth: 50.00 feet

Started drilling: 4/11/40 Completed drilling: 4/12/40

Sample description by: T.S. Good, Virginia Division of
Mineral Resources, 3/1/67.

References: U.S. Engineer Office, Huntington, W. Va., Report
of Core Boring, 4/12/40 and Design Memorandum No. 3
Geology and Soils (2 volumes) for Ohio River Basin Pound
Reservoir Project, U.S. Corps of Engineers, Huntington,
W. Va., 1959.

GEOLOGIC SUMMARY

Depth (feet)	Thickness (feet)	Formation (and remarks)
0.0-1.6	1.6	Overburden.
1.6-1.9	0.3	No core.
1.9-50.0	48.1	Norton Formation: consists of siltstone and a 0.8 foot layer of siliceous limestone.

Proposed Pound

Well No.: (Bartlick) Dam, Site D, Hole 1
~~Hole No. 1~~

County: Dickenson
VDMR 1823

Farm: John T. Flannagan Dam

Driller: Watkins (U.S. Corps of Engineers, contractor)

Inclination: Vertical

Elevation: 1210.8

Total Depth: 50.0

Date Started: 4/11/40

Date Completed: 4/12/40

Sample Description by: R.S. Good March 1, 1967

GEOLOGIC LOG

Depth (ft.)	Thickness (ft.)	Description
0.0 - 1.6	1.6	Overburden.
1.6 - 1.9	0.3	No lost core.
1.9 - 3.5	1.6	Siltstone: dark gray, fissile; varved with alternating siltstone (4-6 ^{thick} mm) and light gray sandstone (1 ^{thick} mm) laminae.
3.5 - 4.3	0.8	<u>Siliceous</u> Limestone: dark gray, massive to finely laminated; ¹

2.

VDMR 1823

4.3 - 23.3

19.0

Siltstone: ^{similar to interval} ~~same as~~ 1.9' to 3.5', dark gray, fissile with ~~minor~~ ^{thin} sandy laminae; Calcareous ~~from~~ ^{at} 8.4' to 8.5', 8.7' to 8.8', and 11.5' to 12.0'; slickensides at 23.3'.

23.3 - 24.4

1.1

No ~~lost~~ core.

24.4 - 40.3

15.9

Siltstone: black, fissile, with ^{a few} occasional ^{brown} siderite ^{bearing} layers ^{that are} bands, 5 to 10 mm thick.

40.3 - 50.0

9.7

~~Arenaceous~~ siltstone: black, gritty, slightly micaceous, ~~with~~ poor fissility.