

INTERVAL SHEET

WWCR 277

Page 1

VDMR Well No.: Well No. 1233

Date 1/21/65

Sample Interval: from 0 to 705

PROP: Hylton Enterprises #13
(Dale City Well #2)

Total depth 750

COMP: Leazer

Oil Gas Water Exploratory

COUNTY: Prince William
(Woodbridge)

Cuttings Core Other

VDMR Well No: W-277

From-To	From-To	From-To	From-To	From-To
				No washed samples
0 - 10	300 - 310	600 - 610	-	-
10 - 20	310 - 320	610 - 620	-	-
20 - 30	320 - 330	620 - 626	-	-
30 - 40	330 - 340	626 - 640	-	-
40 - 50	340 - 350	640 - 650	-	-
50 - 60	350 - 360	650 - 660	-	-
60 - 70	360 - 370	660 - 670	-	-
70 - 80	370 - 380	670 - 680	-	-
80 - 90	380 - 390	680 - 690	-	-
90 - 100	390 - 400	690 - 705	-	-
100 - 110	400 - 410	705 - 750 No samples	-	-
110 - 120	410 - 420	-	-	-
120 - 130	420 - 430	-	-	-
130 - 140	430 - 440	-	-	-
140 - 150	440 - 450	-	-	-
150 - 160	450 - 460	-	-	-
160 - 170	460 - 470	-	-	-
170 - 180	470 - 480	-	-	-
180 - 190	480 - 490	-	-	-
190 - 200	490 - 500	-	-	-
200 - 210	500 - 510	-	-	-
210 - 220	510 - 520	-	-	-
220 - 230	520 - 530	-	-	-
230 - 240	530 - 540	-	-	-
240 - 250	540 - 550	-	-	-
250 - 260	550 - 560	-	-	-
260 - 270	560 - 570	-	-	-
270 - 280	570 - 580	-	-	-
280 - 290	580 - 590	-	-	-
290 - 300	590 - 600	-	-	-

OWNER: Lomond Water Corporation
(Dale City Subdivision Well #2)
DRILLER: Leazer Pump & Well Company
COUNTY: Prince William (Woodbridge)

VDMR #1233
WWCR #277
TOTAL DEPTH: 750'

GEOLOGIC LOG

Overburden (0-50')

- 0-10 Overburden — light-brown, medium-grained, derived from gneiss; muscovite, biotite, quartz, epidote, clay, iron oxides.
- 10-20 As above.
- 20-30 As above — with abundant vein quartz and fragments of medium-gray, medium-fine-grained gneiss.
- 30-40 As above — less vein quartz.
- 40-50 Overburden — light-gray, medium-fine-grained; quartz, muscovite, biotite, saussurite, clay.

Zone of Contact Metamorphism (50-705')

- 50-60 Metamorphosed Sandy Siltstone — medium-light-gray, medium-to fine-grained, slight foliation; thin section: medium-grained quartzite streaks in a very fine-grained ground mass of quartz, feldspar, zoisite and calcite; minor biotite and epidote.
- 60-70 As above — with veins of saussurite and quartz.
- 70-80 Hornfels — medium-gray to light-gray, medium- to very-fine-grained; quartz, hornblende, biotite, plagioclase, saussurite, calcite, minor pyrite and vein of calcite.
- 80-90 As above — slightly darker, minor oxidized zone.
- 90-100 As above.
- 100-110 Hornfels — medium-bluish-gray, medium-fine-grained; thin section: plagioclase, potash feldspar and actinolite crystals (all to 2 mm.) in ground mass of quartzitic streaks; minor biotite, very fine-grained quartz, feldspar, calcite, saussurite; porous in part.
- 110-120 As above.
- 120-130 As above — vein quartz, increase of biotite.
- 130-140 As above — less vein quartz.

OWNER: Lomond Water Corporation (Dale City Sub. Well #2) #1233

- 140-150 Hornfels — medium-light-gray, medium- to fine-grained, thin section: porphyroblasts of plagioclase (2 mm. across) in a matrix of fine-grained quartz, feldspar, and epidote; quartzitic and saussurite streaks, relicts of actinolite in muscovite, biotite, and calcite.
- 150-160 As above — with vein quartz.
- 160-170 As above — no vein quartz.
- 170-180 As above.
- 180-190 Hornfels — medium-gray, medium- to fine-grained; thin section: 50% plagioclase, 25% biotite and amphibole (amphibole mostly altered to biotite), 25% saussurite, trace pyrite; abundant white veins of calcite and quartz.
- 190-200 As above — no white veins; with blebs blue quartz.
- 200-210 As above — no blue quartz.
- 210-220 Hornfels — medium-gray, medium- to fine-grained; thin section: randomly oriented plagioclase and potash feldspar crystals (average 1 mm. long); biotite, chlorite, calcite, saussurite, trace zircon and pyrite. Some biotite forms whorls wrapped around feldspar crystals. The chlorite is intergrown with biotite and is probably after hornblende.
- 220-230 As above — with calcite veins.
- 230-240 As above — very slightly foliated; more biotite.
- 240-250 As above.
- 250-260 Hornfels — medium-gray, medium-to very-fine-grained; feldspar crystals (to 3 mm.), broken and altered in a very fine-grained ground mass of quartz, feldspar, saussurite; biotite and amphibole abundant; some areas slightly foliated.
- 260-270 As above — slightly lighter color; minor oxidized zone.
- 270-280 As above — slightly better foliation.
- 280-290 As above — more knotted; less foliated, trace pyrite.
- 290-300 Gneiss — medium-gray to light-gray; broken and altered feldspar crystals in a fine matrix of quartz, feldspar, calcite, biotite, and saussurite, minor pyrite; slightly foliated.

OWNER: Lomond Water Corporation (Dale City Sub. Well #2) #1233

- 300-310 Gneiss — medium-gray to light-gray; few broken and altered feldspar crystals in a fine matrix of quartz, feldspar, calcite, biotite, and saussurite, minor pyrite; more foliation.
- 310-320 As above — more feldspar crystals, vein quartz and calcite.
- 320-330 As above.
- 330-340 Hornfels — medium-gray, medium- to fine-grained, very slightly foliated; thin section: random (1 mm.) crystals of plagioclase and hornblende; interstices filled with fine-grained quartz, biotite, calcite. The hornblende partially altered to biotite; vein quartz.
- 340-350 As above — minor oxidized zone; no vein quartz.
- 350-360 As above — no oxidized zone.
- 360-370 As above.
- 370-380 Gneiss — medium-gray, medium- to fine-grained; broken and altered crystals of feldspar and amphibole, blebs of blue quartz in a fine-grained matrix; biotite abundant, very slight foliation; trace pyrite.
- 380-390 As above — vein quartz and calcite.
- 390-400 As above — parts of sample have no large feldspar crystals.
- 400-410 Hornfels — medium-gray, medium- to fine-grained; thin section: broken and altered crystals of plagioclase in medium- to very-fine quartzitic matrix with biotite, wollastonite, abundant calcite, minor vein quartz and pyrite.
- 410-420 As above — slightly coarser, with muscovite and vein calcite.
- 420-430 As above — porous in part.
- 430-440 As above — finer grained, porphyroblast more broken; minor oxidation.
- 440-450 Hornfels — medium-gray, medium-coarse to medium-fine, crystals of plagioclase, blebs of blue and smoky quartz in fine-grained matrix of quartz, biotite, feldspar, zoisite; veins of saussurite; minor pyrite; vein quartz; slight foliation.

OWNER: Lomond Water Corporation (Dale City Sub. Well #2) #1233

- 450-460 Hornfels — medium-gray, medium-coarse to medium-fine, crystals of plagioclase, blebs of blue and smoky quartz in fine-grained matrix of quartz, biotite, feldspar, zoisite, veins of saussurite; minor pyrite; vein quartz; slight foliation; in portions of sample the feldspar crystals are broken, strung out and altered.
- 460-470 As above — feldspar crystals unbroken and unaltered; matrix slightly coarser.
- 470-480 Hornfels — medium-dark-gray, medium-fine to medium-grained; slight foliation; biotite, muscovite, quartz, feldspar; minor pyrite; occasional broken and altered feldspar crystals; veins of quartz and saussurite.
- 480-490 As above.
- 490-500 As above - slightly coarser with abundant blue quartz.
- 500-510 Hornfels — medium-gray, medium-coarse to medium-grained; crystals of plagioclase and blebs of blue quartz in fine-grained matrix; biotite, amphibole, quartz, feldspar, zoisite.
- 510-520 As above — minor vein quartz and zoisite.
- 520-530 As above — less vein material.
- 530-540 Hornfels — medium-gray, medium- and fine-grained; thin section: broken and altered plagioclase, actinolite and minor pyroxene in matrix: quartzitic quartz, fine-grained biotite and zoisite; part of the sample is rich in biotite and slightly foliated.
- 540-550 As above — more foliation; vein quartz.
- 550-560 As above.
- 560-570 As above.
- 570-580 As above — less vein quartz.
- 580-590 Hornfels — medium-gray, medium- to very-fine-grained; crystals of feldspar and amphibole in fine-grained matrix of biotite, quartz, calcite, feldspar; vein quartz, trace pyrite.
- 590-600 As above.

OWNER: Lomond Water Corporation (Dale City Sub. Well #2) #1233

600-610	Hornfels — medium-gray, medium- and fine-grained; feldspar, amphibole, biotite, muscovite, quartz, zoisite, spotted iron oxide stain.
610-620	As above.
620-626	As above.
626-640	As above.
640-650	As above.
650-660	As above.
660-670	As above.
670-680	As above.
680-690	As above.
690-705	As above.
705-750	No samples.

GEOLOGIC SUMMARY

	<u>ROCK UNIT</u>	<u>AGE</u>
0-50	Overburden	Quaternary
50-705	Zone of contact metamorphism, possibly between a granite gneiss and the Quantico Slate present in this area.	Uncertain
705-750	No samples.	

Note: As a hornfels is formed by contact metamorphism, this log indicates that this contact zone is nearly vertical.

Virginia Division of Mineral Resources
Hollis N. Walker, Geologist
January 28, 1965