

INTERVAL SHEET

WWCR 955

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VDMR Well No.: Well No. 1321

Date 6/15/65

Sample Interval: from 0 to 429

PROP: Sydnor (West Leigh #4)

Total depth 429

COMP: Sydnor Pump & Well Co.

Oil Gas Water Exploratory

COUNTY: Albemarle (Ivy)

Cuttings Core Other

VDMR Well No: W-1321

Washed samples

From-To	From-To	From-To	From-To	From-To
-	-	0- 10	300 - 310	-
-	-	10- 20	310 - 320	-
-	-	20- 30	320 - 330	-
-	-	30- 40	330 - 340	-
-	-	40- 50	340 - 350	-
-	-	50- 60	350 - 360	-
-	-	60- 70	360 - 370	-
-	-	70- 80	370 - 380	-
-	-	80- 90	380 - 390	-
-	-	90- 100	390 - 400	-
-	-	100- 110	400 - 410	-
-	-	110- 120	410 - 420	-
-	-	120- 130	420 - 429	-
-	-	130- 140	-	-
-	-	140- 150	-	-
-	-	150- 160	-	-
-	-	160- 170	-	-
-	-	170- 180	-	-
-	-	180- 190	-	-
-	-	190- 200	-	-
-	-	200- 210	-	-
-	-	210- 220	-	-
-	-	220- 230	-	-
-	-	230- 240	-	-
-	-	240- 250	-	-
-	-	250- 260	-	-
-	-	260- 270	-	-
-	-	270- 280	-	-
-	-	280- 290	-	-
-	-	290- 300	-	-

OWNER: Sydnor Pump & Well Co., Inc.
(West Leigh Subdivision - Well #4)
DRILLER: Sydnor Pump & Well Co., Inc.
COUNTY: Albemarle (Ivy)

VDMR #1321
WWCR #955
TOTAL DEPTH: 429'

GEOLOGIC LOG

Lovingston Formation (0-150')

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|---------|--|
| 0-10 | Residuum — dark-brown and creamy-white; coarse-grained, flaky; biotite, quartz, feldspar, muscovite, garnet, iron oxide stain, clays, trace amphibole. |
| 10-20 | As above. |
| 20-30 | As above. |
| 30-40 | As above — minor magnetite. |
| 40-50 | As above — with epidote. |
| 50-60 | Gneiss — black and white, coarse-grained, slightly foliated, biotite, alkali-feldspar quartz; minor muscovite, garnet, apatite, zircon, epidote, pyrite, chlorite, minor iron oxide stain. |
| 60-70 | As above. |
| 70-80 | As above — less iron stain, potash feldspar, showing alteration to albite and zoisite, blebs of quartz in microcline. |
| 80-90 | As above — no iron stain. |
| 90-100 | As above. |
| 100-110 | As above. |
| 110-120 | As above. |
| 120-130 | As above. |
| 130-140 | As above. |
| 140-150 | As above. |

Lovingston Formation and Amphibolite Dike (150-300')

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|---------|--|
| 150-160 | Gneiss and Amphibolite — three-fourths black and white very-coarse-grained gneiss: biotite, quartz, feldspar; minor garnet, apatite, epidote, pyrite, and zircon; one-fourth blackish-green, medium-grained amphibolite with slight lineation: hornblende, epidote, chlorite, feldspar, quartz, biotite, and pyrite. |
|---------|--|

OWNER: Sydnor Pump & Well Co., Inc., (West Leigh Subdivision - Well #4)

- 160-170 Gneiss and Amphibolite — three-fourths black and white very-coarse-grained gneiss: biotite, quartz, feldspar; minor garnet, apatite, epidote, pyrite, and zircon; one-fourth blackish-green medium-grained amphibolite with slight lineation: hornblende, epidote, chlorite, feldspar, quartz, biotite, and pyrite.
- 170-180 As above.
- 180-190 As above.
- 190-200 As above.
- 200-210 As above.
- 210-220 As above — less amphibolite; large feldspar and quartz augen.
- 220-230 As above — trace of amphibolite.
- 230-240 Augen Gneiss — black with white and pale-pink, coarse-grained, augen over 15 mm across; biotite, potash and plagioclase feldspar, quartz, muscovite; minor apatite, garnet, zircon, calcite, and pyrite.
- 240-250 As above — (sample too finely ground to show augen).
- 250-260 As above.
- 260-270 As above.
- 270-280 As above.
- 280-290 As above — minor amphibolite.
- 290-300 As above.
- Lovingston Formation (300-429')
- 300-310 Gneiss — black and white, coarse-grained; biotite, plagioclase, potash feldspar, quartz, and epidote; minor garnet, calcite, chlorite, muscovite, pyrite, and zircon.
- 310-320 As above.
- 320-330 As above — less biotite.
- 330-340 As above — trace amphibolite, (perhaps contamination).
- 340-350 As above — no amphibolite.

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- 350-360 Gneiss — black and white, with very-pale-greenish areas; coarse-grained biotite, potash feldspar, plagioclase, quartz, minor epidote, garnet, zircon, apatite, pyrite; minor zone with cataclastic structure with epidote, chlorite, abundant quartz and minor open pores and cracks.
- 360-370 As above.
- 370-380 As above.
- 380-390 As above.
- 390-400 Gneiss — black and white with pale-greenish-brown, foliated in part; biotite, quartz, feldspar, chlorite; minor garnet, epidote, ilmenite, zircon, and pyrite.
- 400-410 As above — minor portions have cataclastic structure.
- 410-420 As above — too finely ground to determine the structure.
- 420-429 As above — minor area cataclastic structure.

GEOLOGIC SUMMARY

	<u>ROCK UNIT</u>	<u>TIME ROCK UNIT</u>
0-150	Lovingston Formation	Precambrian
150-300	Lovingston Formation and Amphibolite Dike	Precambrian
300-429	Lovingston Formation	Precambrian

Note: Apatite was found in all grain mount made of the gneiss where it is not reported no grain mount was made.

Virginia Division of Mineral Resources
Hollis N. Walker, Geologist
June 21, 1965