

INTERVAL SHEET

Page 1

VDMR WELL NO. 415

Sample Interval: from 0 to 706

PROP: General Electric

Total Depth: 750

COMP: Sydnor Pump & Well Co.

Oil Gas Water X Exploratory

COUNTY: Augusta (Waynesboro - Hwy 340)

Cuttings X Core Other

From-To	From-To	From-To	From-To	From-To
0 - 3	151 - 156	288 - 293	425 - 431	552 - 557
3 - 8	156 - 161	293 - 298	431 -	557 - 562
8 - 13	161 - 166	298 - 303	431 - 436	562 - 567
13 - 18	166 - 171	303 - 308	436 - 439	567 - 572
18 - 23	171 - 176	308 - 313	439 -	572 - 577
23 - 28	176 - 181	313 - 318	439 - 444	577 - 582
28 - 33	181 - 186	318 - 323	444 - 449	582 - 587
33 - 37	186 - 191	323 - 328	449 - 454	587 - 592
37 - 42	191 - 196	328 -	454 - 459	592 - 600
42 - 46	196 - 201	328 - 333	459 - 464	600 - 605
46 - 51	201 - 206	333 - 338	464 - 469	605 - 610
51 - 56	206 - 212	338 - 343	469 - 474	610 - 615
56 - 61	212 - 217	343 - 348	470 - 475	615 - 620
61 - 66	217 - 222	348 - 353	474 - 479	620 - 625
66 - 71	222 - 227	353 - 358	475 - 480	625 - 630
71 - 76	227 - 232	358 - 363	480 - 485	630 - 635
76 - 81	233 -	363 - 368	485 - 490	635 - 640
81 - 86	233 - 238	368 - 373	490 - 495	640 - 645
86 - 91	238 - 243	373 - 378	495 - 500	645 - 650
91 - 96	243 - 248	378 - 383	500 - 525	651 - 656
96 - 101	248 - 253	383 - 388	500 - 505	656 - 661
101 - 106	253 - 258	388 - 393	505 - 510	661 - 666
106 - 111	258 - 263	393 - 398	510 - 515	666 - 671
111 - 116	263 -	398 - 400	515 - 520	671 - 676
116 - 121	263 - 268	400 - 405	525 - 530	676 - 681
121 - 126	268 - 273	405 - 410	530 - 535	681 - 686
126 - 131	273 - 278	410 - 415	537 -	686 - 691
131 - 136	278 -	415 - 420	542 -	691 - 696
136 - 141	278 - 283	420 -	542 - 547	696 - 701
146 - 151	283 - 288	420 - 425	547 - 552	701 - 706

OWNER: General Electric Co.
DRILLER: Sydnor Well & Pump
COUNTY: Augusta (Waynesboro)

VDMR: 415
WWCR: #84
Depth: 750'

SAMPLE EXAMINATION
(Washed)

Interval	Description
0 - 11	Alluvium
11 - 18	Limestone with some quartz (static water level @ 11 feet).
18 - 23	Limestone, tan-light tan, sandy, with considerable dolomite, dark bluish gray, limy.
23 - 28	Dolomite, dark bluish gray, limy with some limestone, tan, sandy.
28 - 33	Dolomite and limestone interbedded as above.
33 - 37	Dolomite, dark bluish gray, limy with minor amounts of tan limestone.
37 - 42	Dolomite as above, slight increase in limestone, tan sandy, traces of shale, dark gray, slight vugs in tan limestone.
42 - 46	Shale, light gray, calcareous, minor amounts of dolomite and limestone.
46 - 51	Shale as above, silky lustre, some limestone, buff.
51 - 56	Shale as above.
56 - 61	Dolomite, dark bluish gray, limy.
61 - 66	Dolomite as above with limestone, tan, sandy, traces of shale, gray.
66 - 71	Dolomite as above interbedded with tan dolomitic limestone.
71 - 76	Dolomite as above, traces of shale, gray.
76 - 86	Dolomite as above.
86 - 96	Limestone, light gray to tan dolomitic, traces of sandstone, very fine grained, white to tan.
96 - 136	Dolomite, dark gray, sandy, limy, some tan dolomitic limestone with interbedded calcite seams, traces of small pyrite crystals.

- 136-141 Dolomite, dark gray, limy, traces of calcite seams.
- 141-146 Missing
- 146-156 Dolomite as above.
- 156-181 Dolomite, gray to dark gray, limy, some white dolomite.
- 181-186 Dolomite as above with some tan sandy limestone, trace of vugs-
vugs are not connected - no permeability noted.
- 186-206 Dolomite, gray-dark gray, limy, with interbedded white and tan
dolomitic limestone.
- 206-232 Limestone, tan, dolomitic, slightly vuggy, traces of quartz,
iron staining.
- 232-263 Dolomite, light gray, limy, traces of tan limestone, few pyrite
crystals and some iron staining.
- 263-323 Limestone, gray-tan, dark gray cuttings have fine calcite seams,
iron staining.
- 323-420 Interbedded tan dolomitic limestone and maroon calcareous siltstone,
traces of brown calcareous sandstone and maroon silty shale.
TEST NO. 1 @ 400 250 GPM
- 420-431 Limestone, dolomitic, pink-red.
- 431-485 Limestone, dark gray, dolomitic with small calcite seams, traces
of orange sandstone and siltstone, traces of white dolomite.
- 485-500 Limestone as above with a considerable amount of clay mineral.
- 500-506 Limestone, pink-red, dolomitic interbedded with gray dolomite.
- 506-520 Dolomite, light gray, limy, with traces of limestone, pink, some
pyrite crystals.
- 520-525 Missing - assumed to be same as above.
- 525-542 Interbedded pink dolomitic limestone and maroon calcareous shale
and siltstone.
- 542-547 Dolomite, light-dark gray, limy.
- 547-600 Siltstone, gray, pyritic, hard, traces of white dolomite.
- 600-650 Limestone, light gray, traces of pyrite and calcite, iron staining.
TEST No. 2 @ 600 307 GPM

- 650-676 Limestone, dolomitic, maroon, sandy, with considerable dolomite, pale green, traces pyrite (green dolomite and maroon limestone are interbedded).
- 676-728 Limestone, dark gray, sandy, limonite staining, some yellow-brown.
- 728-750 Shale, maroon-red, pyritic, calcareous, traces white to pink dolomitic limestone. TEST No. 3 @ 750 567 GPM
- 750 Total Depth

VIRGINIA DIVISION OF MINERAL RESOURCES
Laurence H. Gardner II
July, 1961

General Electric Company
Waynesboro, Virginia
Near northern city limits town of Waynesboro and
approximately $\frac{1}{4}$ mile west of State Route 340

Sydnor Well & Pump
Hydraulic Rotary Rig

Sample Examination
(washed)

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51 - 56	Shale as above.
56 - 61	Dolomite, dark bluish gray, limy.
61 - 66	Dolomite as above with limestone, tan, sandy, traces of shale, gray.
66 - 71	Dolomite as above interbedded with tan dolomitic limestone.
71 - 76	Dolomite as above, traces of shale, gray.
76 - 86	Dolomite as above.
86 - 96	Limestone, light gray to tan dolomitic, traces of sandstone, very fine grained, white to tan.

- 96 - 136 Dolomite, dark gray, sandy, limy, some tan dolomitic limestone with interbedded calcite seams, traces of small pyrite crystals.
- 136 - 141 Dolomite, dark gray, limy traces of calcite seams.
- 141 - 146 Missing.
- 146 - 156 Dolomite as above.
- 156 - 181 Dolomite, gray to dark gray, limy, some white dolomite.
- 181 - 186 Dolomite as above with some tan sandy limestone, trace of vugs - vugs are not connected - no permeability noted.
- 186 - 206 Dolomite, gray-dark gray, limy, with interbedded white and tan dolomitic limestone.
- 206 - 232 Limestone, tan, dolomitic, slightly vuggy, traces of quartz, iron staining.
- 232 - 263 Dolomite, light gray, limy, traces of tan limestone, few pyrite crystals and some iron staining.
- 263 - 323 Limestone, gray-tan, dark gray cuttings have fine calcite seams, iron staining.
- 323 - 420 Interbedded tan dolomitic limestone and maroon calcareous siltstone, traces of brown calcareous sandstone and maroon silty shale. TEST NO. 1 @ 400 250 GPM
- 420 - 431 Limestone, dolomitic, pink-red.
- 431 - 485 Limestone, dark gray, dolomitic with small calcite seams, traces of orange sandstone and siltstone, traces of white dolomite.
- 485 - 500 Limestone as above with a considerable amount of clay mineral.
- 500 - 506 Limestone, pink-red, dolomitic interbedded with gray dolomite.
- 506 - 520 Dolomite, light gray, limy, with traces of limestone, pink, some pyrite crystals.
- 520 - 525 Missing - assumed to be same as above.
- 525 - 542 Interbedded pink dolomitic limestone and maroon calcareous shale and siltstone.
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- 547 - 600 Siltstone, gray, pyritic, hard, traces of white dolomite.
- 600 - 650 Limestone, light gray, traces of pyrite and calcite, iron staining. TEST NO. 2 @ 600 307 GPM

600 - 650 Limestone, light gray, traces of pyrite, traces of calcite, some limonite staining.

650 - 676 Limestone, dolomitic, maroon, sandy, with considerable dolomite, pale green, traces pyrite (green dolomite and maroon limestone are interbedded).

676 - 728 Limestone, dark gray, sandy, limonite staining, some yellow-brown.

728 - 750 Shale, maroon-red, pyritic, calcareous, traces white to pink dolomitic limestone. TEST NO. 3 @ 750 567 GPM

750 Total Depth

Sample Examination by
Laurence H. Gardner

No evidence of 1 or 2 good H_2O horizons 0-400 — H_2O probably
from numerous seeps, (gouges & channels), 250 gpm

The 57 gpm from 400-600 probably in same condition as above

Final 360 gpm from 600-750 probably came mostly from last 25'
(loggers TD 730, but samples from 720-750 show change @ 725' to
a probable good H_2O horizon; 600-720' is pretty dense carbonate)

H_2O probably hard (Ca, Mg, SO₄, Fe)

Best move for next well is as near Pt. 340 as possible on property —
to enable most drilling to be in 64

Pump test was poor — a better one may clear up muddy H_2O
(muddy H_2O from 600-750' or from sinkhole)

Salt test may show if sinkhole is feeding well

Sample study

R.H. DeHay

	0-3	clayey soil		} alluvium
	4-12	soil, iq qtz frags + collins		
drock ↓	13-27	angular blue ls frags w/ some qtz		} LS
	28-33	limy dolomite, sh + qtzite frags, lt-dk blue		
	34-42	" " , few qtzite frags + powders, dk blue		
	43-46	^{large} buff, sericitic shale frags, few ls frags		} sh
	47-56	Very large buff, sericitic sh frags, silty luster		
	57-76	lg, dk gray ls w/ silty sh frags		} shaly ls
	77-101	lg dol-ls frags w/ sh + ss frags + limo streaks		
ising ↑	102-115	blue-gray ls, qtz frags (seri?)		} LS
	116-151	med-lq lt + dk blue ls, ^{frags} little qtz or orange sh		
	152-201	" lt blue angular ls, ^{frags} little sh-ss, pyrite 7190'		} Sandy LS
	202-231	" lq brown sandy ls, orange ss, lt blue pitted ls frags		
	232-262	dense, blue-gray ls w/ little pyrite, calcite, fe stain, ss frags		} LS
	263-277	brown, sandy ls, red sandy sh, blue ls frags, fe stains		
	278-324	dense blue-gray ls, powder, few ss-sh frags		} dolomitic ls
	325-400	blue-gray ls w/ some brown-gray dol + red-buff ^{calcite & powder} sandy sh frags		
	401-420	blue-gray ls, little powder		
	421-430	F.G. red, well cemented limy sand w/ some Fe stain + calcite		} limy sand
	431-454	dark blue-gray ls, few calc + qtz frags, powder, ^{stain} limo, ^{st gray ls}		
EW intact	455-474	dark gray ls, some buff-red sandy sh frags + fe stain		} dol
et ↓	475-505	dense blue-gray ls, ^{dol} powder + calcite frags		
	506-540	" blue-gray ls, ^{dol} some buff-red sandy sh + pitted sandy ls frags		} limy dol
	541-545	" " " ls-dol		
	546-557	lt + dk blue ls, few buff + red sandy sh frags		} sandy ls
	568-640	dense blue-gray ls, some stain, calc, pyrite, powder, pitted sandy ls		
	641-670	" " " dol-ls w/ little rd ss-sh-ls, py, calc, fe, powder		} dol
	671-700	" dk blue dol-ls, little stain + powder		
	701-725	" blue-gray " " " " " pyrite & calc		
	726-740	F.G. buff-purple arg ss w/ some gray ls, " "		} sandy-shaly limestone
	741-750	" " " , clayey, w/ qtz + gray ls frags		

clay (sh) may have been lost by hydraulic iq
 many series are arenaceous, sh + ss are calcareous or argillaceous

AUGUSTA COUNTY WAYNESBORO, VA

T.	R.

GENERAL ELECTRIC COMPANY

VDMR # 415 (84) NO. 1

COMMENCED 12/22/59

COMPLETED 4/6/60

ELEVATION

REMARKS used hydraulic

PRODUCTION

rotary rig - Sydney Hall
& Pump

567 GPM

FORM 187 - For Sale by Rose-Martin Co., Tulsa

