INTERVAL SHEET

| | 11/11 | LIVAL SILLI | LINION | |
|-----------------------------|--|-------------------------------|-----------------------|------------------|
| Page 1 | | VDMR Well No.: | WWCR 454 865 | |
| Date | | Sample Interval: from 5 to 60 | | |
| PROP: Nat. Park Service | | Total depth | | |
| (Swift Run #1) COMP: Sydnor | | OilGasWater_x_Exploratory | | |
| | ngham (Elkton) Well No. W-865 | Cuttings_x | _CoreOther | |
| From-To | From-To | From-To | From-To | From-To |
| _ | 5_ | _ | 2 | - |
| _ | 10_ | | _ | - |
| _ | 15_ | - | Insufficient quantity | 2 — 2 |
| | 20_ | _ | of material to wash. | |
| _ | 25_ | | _ | _ |
| | 20- | - | - 1 | |
| _ | 25-40 No sample | - | 2 | 2N |
| = | 40_ | = | ÷ | P-2 |
| _ | 45_ | _ | · | _ |
| · _ | 50_ | 1- | _ | - |
|) - | 55_ | = | - | 1-1 |
| | | | | |
| - | 60- | 1860 | = | - |
| = | - x | n - | - | |
| - | - | - | - | - |
| - P | ~ | - | ž – | - |
| 6-3 | -7 | = | - | : = : |
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| 1211 | _ | _ | - | V= |
| _ | _ | _ | _ | _ |
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| _ | | _ | <u>~</u> | _ |

OWNER: Shenandoah National Park - Swift Run No.1 DRILLER: Sydnor Pump & Well Co.

COUNTY: Rockingham (Swift Run)

VDMR # 865 WWCR # 454 TOTAL DEPTH : 60'

GEOLOGIC LOG

| 5 | Overburden - brown clay, quartz fragments, traces of purple siltstone |
|----|--|
| 10 | As above |
| 15 | Overburden - brown clay, traces of black manganese fragments |
| 20 | Overburden - brown clay, manganese, quartz and siltstone fragments |
| 25 | Overburden - brown clay, manganese and quartz fragments, traces of red chert |
| 40 | Basalt - dark gray, hard, dense, some very fine grained diorite |
| 45 | Basalt - dark gray, hard, dense |
| 50 | Basalt - dark gray, hard, dense, trace of calcite seams |
| 55 | Basalt - dark gray, hard, dense, some very fine grained yellowish-tan diorite |
| 60 | Basalt - dark gray, hard, dense, some very fine grained yellowish-tan diorite, trace of asbestos |

GEOLOGIC SUMMARY

AGE

ROCK UNIT

Precambrian

Catoctin formation

Division of Mineral Resources Laurence H. Gardner II - Geologist August 1963