## VIRGINIA DIVISION OF MINERAL RESOURCES Box 3667, Charlottesville, VA 22903

## INTERVAL SHEET

|           |             | 21112               |       |                |         | C-43    |            |
|-----------|-------------|---------------------|-------|----------------|---------|---------|------------|
| Page ]    | l of        | 1                   |       | Well Repositor | y No.:  | W- 5516 |            |
| Date rec' | d:          | Date Processed: 9/  | 17/79 | Sample Interva | l: from | a 40    | to: 980    |
| PROPERTY: | U.S. Air Fo | orce Geothermal #27 |       | Number of samp | les:    | 87      |            |
| COMPANY:  | Gruy Federa | al                  |       | Total Depth:   |         | 1037    |            |
| COUNTY:   | Elizabeth ( | City (Langley)      |       | Oil or Gas:    | Water:  | Explo   | ratory: XX |

| From-To    | From-To               | From-To | From-To      | From-To |
|------------|-----------------------|---------|--------------|---------|
| <b>—</b> : | 310-320               | 610-620 | 900-910      | -       |
| -          | 320-330               | 620-630 | 910-920      | 125<br> |
| -          | 330-340               | 630-640 | 920-930      |         |
| =          | 340-350               | 640-650 | 930-940      | -       |
| 40-50      | 350-360               | 650-660 |              | -       |
|            |                       |         |              | *       |
| 50-60      | 360-370               | 660-670 | 950-960      | -       |
| -          | 370-380               | 670-680 | 960-970      | -       |
| 80-90      | 380-390               | 680-690 | 970-980      | -       |
| 90-100     | 390-400               | 690-700 | _            | -       |
| 100-110    | 400-410               | 700-710 | -            | -       |
|            |                       |         |              |         |
| 110-120    | 410-420               | 710-720 | -            | -       |
| 120-130    | 420-430               | 720-730 | -            | -       |
| 130-140    | 430-440               | 730-740 | -            | -       |
| 140-150    | 440-450               | 740-750 | -            | -       |
| 150-160    | 450-460               | 750-760 | -            | -       |
|            |                       |         |              |         |
| 160-170    | 460-470               | 760-770 | -            | -       |
| 170-180    | 470-480               | 770-780 | -            | -       |
| 180-190    | 480-490               | 780-790 | -            |         |
| 190-200    | 490-500               | 790-800 | _            | -       |
| 200-210    | 500-510               | 800-810 | -            | -       |
|            |                       |         |              |         |
| 210-220    | 510-520               | 810-820 | -            | -       |
| 220-230    | _                     | 820-830 | -            |         |
| -          | 530-540               | 830-840 | -            | —       |
| 240-250    | 540-550               | 840-850 | -            | -       |
| 250-260    | 550-560               | 850-860 | -            | -       |
|            |                       |         |              |         |
| 260-270    | 560-570               | 860-870 | -            |         |
| _          | 570-580               | 870-880 | 2 <b>—</b> 2 |         |
| -          | 580-590               | -       | : <b>—</b> : | -       |
| 290-300    | 590-600               | 880-890 | -            | -       |
| 300-310    | 600-610               | 890-900 | -            | -       |
|            | And the second second |         |              |         |

Unwashed only.

| Owner:   | USAF Geotherm. | #27       | W# 5516            |
|----------|----------------|-----------|--------------------|
| Driller: | Gruy Federal   |           | C# 43              |
| County:  | Elizabeth City | (Langley) | Total Depth: 1037' |
|          |                | ·         | Quad: Hampton      |
|          |                |           | Elev: 5'           |

| Depth  |  |
|--------|--|
| (foot) |  |

## WELL LOG

(feet)

- 0-40 No Samples.
- 40-50 Sand - medium olive gray (5Y 5/2); sparse clay in sand clasts; medium to granule, subangular; moderate sorting; quartz; 5% (?) fine black phosphatic fragments; 10% shell fragments; scaphopods.
- 50-60 Sand - as above, except: moderate clay; 10% glauconite; 5% shell fragments; echinoderm spines.
- 60-80 No Samples.
- 80-90 Shell Hash - salt and pepper; moderate clay; sand as above; 5%+ glauconite; 30% shell fragments - Chamys Eborea; Crassinella Lunulata; Phacoides.
- 90-100 Shell Hash - as above, except: Polinices; 20% shell fragments.
- 100-110 Shell Hash - as above, except: some pebbles; 50% shell fragments; Mulina Congesta; Yoldia Laevis; Polinices; Fascio Laria.
- 110-120 Sand - medium olive gray (5Y 5/1); sparse silt; medium to coarse; subangular; some very coarse; well sorted; quartz; 7% glauconite; 10% + very fine shell fragments.
- 120-130 Sand - as above, except: 10% glauconite; 2% shell fragments.
- 130-140 Sand - as above, except: 10+% shell fragments, Glycimeris.
- 140-150 Sand - as above, except: 7% shell fragments.
- Sand as above, except: 10% shell fragments. 150-160
- 160-170 Sand - as above.
- 170-180 Sand - as above, except: 7% shell fragments.
- 180-190 Sand - as above, except: very fine shell fragments.
- 190-200 Sand - as above.
- 200-210 Sand - as above, except: large shell fragments.

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| Depth<br>(feet) |   |
|-----------------|---|
| 210-220         | Sand - as above, except: 10% shell fragments.   |
| 220-230         | Sand - as above.  |
| 230-240         | No Sample.  |
| 240-250         | Shell Hash - salt and pepper; sparse silt; medium to very coarse; poor sorting; quartz; 4% glauconite; 45% shell fragments. |
| 250-260         | Shell Hash - as above.  |
| 260-270         | Shell Hash - as above.  |
| 270-290         | No Sample.  |
| 290-300         | Sand - as above, except: 25% fine shell fragments.  |
| 300-310         | Sand - as above.  |
| 310-320         | Sand - as above, except: 10% shell fragments.   |
| 320-330         | Sand - as above.  |
| 330-340         | Sand - as above, except: 50% fine shell fragments.  |
| 340-350         | Sand - as above, except: 40% shell fragments.   |
| 350-360         | Sand - as above.  |
| 360-370         | Sand - as above, except: 50% shell fragments.   |
| 370-380         | Sand - as above.  |
| 380-390         | Sand - as above, except: 40% shell fragments.   |
| 390-400         | Shell Hash - salt and pepper; sparse silt; sparse sand as above; some glauconite; 85% shell fragments; chela of crab.       |
| 400-410         | Shell Hash - as above.  |
| 410-420         | Shell Hash - as above.  |
| 420-430         | Shell Hash - as above, except: foram - <u>Robulus</u> .   |

W# 5516

C# 43

Depth (feet)

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| 430-440 | Shell Hash - as above.  |
|---------|---|
| 440-450 | Shell Hash - as above.  |
| 450-460 | Shell Hash - as above, except: some clay clasts.  |
| 460-470 | Shell Hash - as above.  |
| 470-480 | Shell Hash - as above.  |
| 480-490 | Shell Hash - as above, except: sparse clay.   |
| 490~500 | Shell Hash - as above: <u>Glycimeris</u> .  |
| 500-510 | Shell Hash - as above: <u>Venicardia</u> <u>Altiasta</u> .  |
| 510-520 | Shell Hash - as above, except: very sparse sand, some granules;<br>Turritella; 90%+ shells.   |
| 520-530 | No Sample.  |
| 530-540 | Shell Hash - as above.  |
| 540-550 | Shell Hash - as above.  |
| 550-560 | Shell Hash - as above.  |
| 560-570 | Shell Hash - as above.  |
| 570-580 | Shell Hash - as above, except: clay coated shell fragments.   |
| 580-590 | Shell Hash - as above, except: abundant clay in clasts; moderate amount of clasts; <u>Venus Mercenaria</u> .  |
| 590-600 | Shell Hash - as above.  |
| 600-610 | Shell Hash - as above, except: sparse clay in clasts and coatings; moderate sand; medium to very coarse; poor sorting; quartz; 10% glauconite; 50% shell fragments. |
| 610-620 | Shell Hash - as above, except: moderate clay; sparse sand.  |

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W# 5516
C# 43
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Depth (feet)

- 620-630 Shell Hash as above, except: moderate sand, some in clasts; foram - Robulus.
- 630-640 Sand as above, except: sparse clay; abundant sand; medium to granule; 30% glauconite; 15% shell fragments.
- 640-650 Shell Hash as above, except: 45% shell fragments; forams Uvigerina; Dentalina; Nonion; Bulimina.
- 650-660 Shell Hash as above; 40% glauconite; 7% shell fragments; foram - Bulimina; Quinqueloculina; Nonion.
- 660-670 Sand light olive gray (5Y 5/2); sand abundant; as above; 20% glauconite; 5% shell fragments; forams.
- 670-680 Sand as above, except: sparse clay; fine to very coarse sand; 30% glauconite; 3% shell fragments; forams.
- 680-690 Sand as above, except: 7% shell fragments; garnet.
- 690-700 Shell Hash salt and pepper; 50% shell fragments, coated with sand and clay; clasts of sand and clay; with glauconite.
- 700-710 Shell Hash as above, except: 50% sand of which 50% is medium to granule; poorly sorted; quartz; and 50% glauconite; feldspar.
- 710-720 Shell Hash as above, except: some clay clasts; forams.
- 720-730 Sand as above, except: moderate clay in sand clasts; 10% glauconite; 10% shell fragments.
- 730-740 Shell Hash salt and pepper; 50% shell fragments; bone fragment.
- 740-750 Sand olive gray (5Y 4/1); moderate clay in sand clasts; sand as above; 25% glauconite; 15% shell fragments.
- 750-760 Sand as above, except: 20% shell fragments.
- 760-770 Sand, Clayey as above, except: abundant clay in clasts; 10%+ glauconite; 10% shell fragments.

Depth (feet)

| 770-780              | Sand - as above, except: 15% shell fragments.  |
|----------------------|--|
| 780 <del>-</del> 790 | Clay - light olive gray (5Y 6/2); abundant sand as above;<br>glauconite; 7% shell fragments.   |
| 790-800              | Clay - as above.   |
| 800-810              | Sand, Clayey - as above, except: moderate clay; 10%+ glauconite;<br>1% shell fragments.  |
| 810-820              | Sand - as above, except: fine to granule, poor sorting; 5% shell fragments.  |
| 820-830              | Sand - as above, except: 30% glauconite; 10% shell fragments.  |
| 830-840              | Sand - as above, except: 5% shell fragments.   |
| 840-850              | Sand - as above.   |
| 850-860              | Sand - as above, except: 10% shell fragments.  |
| 860-870              | Sand - as above, except: 25% fine shell fragments.   |
| 870-880              | Sand - as above.   |
| 880-890              | Sand - as above, except: clay-coated sand grains; 7% glauconite;<br>10% shell fragments.   |
| 890-900              | Sand - as above, except: 25% glauconite; 15% shell fragments.  |
| 900-910              | Sand - as above, except: 5% shell fragments.   |
| 910-920              | Sand - as above, except: abundant clay; 20% shell fragments -<br>Nuculana Acuta.   |
| 920-930              | Clay, Sandy - as above, except: 10% shell fragments; 20% <u>+</u><br>glauconite.   |
| 930-940              | Sand - as above, except: abundant clay, coating sand; 30%<br>glauconite; <u>Ensis; Nuculana; Scaphopods; Venicardium; Lucina;</u><br><u>Nucula</u> . |

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| Owner: | USAF | Geotherm | #27 | -6- | W# | 5516 |
|--------|------|----------|-----|-----|----|------|
|        |      |          |     |     | C# | 43   |

Depth (feet)

- 940-950 Clay, Sandy as above, except: sparse shell fragments.
- 950-960 Clay, Sandy as above, except: 10% shell fragments.
- 960-970 Sandy Clay as above.
- 970-980 Sandy Clay as above; 20% shell fragments; <u>Terebra</u> <u>Grayi</u>; 10% glauconite.
- 980-1037 No Samples.

Logged by: J. K. Polzin June 6, 9, 1980