

INTERVAL SHEET

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Date rec'd: 9-27-66

PROP: PROP: PREDDY CREEK #1

COMP: COMP: AMERICA METALS
CLIMAX, INC.

COUNTY: COUNTY: ALBEMARLE
(STONY POINT)

~~VDMR WELL NO: W-1717~~

VDMR Well No: WELL NO. 1717

Sample Interval: from 86 to

Number of samples: 44

Total Depth: 247

Oil or Gas: Water: Exploratory: X

FROM	To	From-To	From-To	From-To
86.0	86.5	201.5-205.0	-	-
86.5	91.5	205.0-207.0	-	-
91.5	96.5	207.0-209.0	-	-
96.5	101.	209.0-214.0	-	-
		214.0-218.5	-	-
101.0	106.	218.5-220.5	-	-
106.0	111.	220.5-222.1	-	-
111.0	116.	222.1-223.5	-	-
116.0	126.	223.5-228.5	-	-
126.0	131.	228.5-230.1	-	-
131.0	136.	230.1-231.5	-	-
136.0	136.9	231.5-233.7	-	-
136.9	141.9	233.7-235.0	-	-
141.9	146.9	235.0-236.0	-	-
146.9	149.5	236.0-241.0	-	-
149.5	150.8	241.0-247.0	-	-
150.8	155.8	-	-	-
155.8	160.8	-	-	-
160.8	165.8	-	-	-
165.8	170.8	-	-	-
170.8	175.8	-	-	-
175.8	179.8	-	-	-
179.8	180.0	-	-	-
180.0	182.8	-	-	-
182.8	184.0	-	-	-
184.0	186.0	-	-	-
186.0	191.0	-	-	-
191.0	196.0	-	-	-
196.0	201.5	-	-	-

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Sample Interval: from 86 to 247

PROP: Preddy Creek #1

Number of samples: 44

COMP: America Metals Climax, Inc.

Total Depth: 247

COUNTY: Albemarle (Stony Point)

Oil or Gas: Water: Exploratory: X

From-To	From-To	From-To	From-To
No Samples	205.0 _ 207.0	-	-
86.0 _86.5	207.0 _ 209.0	-	-
86.5 _91.5	209.0 _ 214.0	-	-
91.5 _96.5	214.0 _ 218.5	-	-
96.5 _101.0	218.5 _ 220.5	-	-
101.0 _106.0	220.5 _ 222.1	-	-
106.0 _111.0	222.1 _ 223.5	-	-
111.0 _116.0	223.5 _ 228.5	-	-
116.0 _126.0	228.5 _ 230.1	-	-
126.0 _131.0	230.1 _ 231.5	-	-
131.0 _136.0	231.5 _ 233.7	-	-
136.0 _136.9	233.7 _ 235.0	-	-
136.9 _141.9	235.0 _ 236.0	-	-
141.9 _146.9	236.0 _ 241.0	-	-
146.9 _149.5	241.0 _ 247.0	-	-
149.5 _150.8	-	-	-
150.8 _155.8	-	-	-
155.8 _160.8	-	-	-
160.8 _165.8	-	-	-
165.8 _170.8	-	-	-
170.8 _175.8	-	-	-
175.8 _179.8	-	-	-
179.8 _180.0	-	-	-
180.0 _182.8	-	-	-
182.8 _184.0	-	-	-
184.0 _186.0	-	-	-
186.0 _191.0	-	-	-
191.0 _196.0	-	-	-
196.0 _201.5	-	-	-
201.5 _205.0	-	-	-

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WELL NO.: Preddy Creek Church #1

COUNTY: Albemarle

FARM:

VDMR Well No.: 1717

DRILLER: American Metals, Climax, Inc.

LOCATION: 1 1/2 miles ENE of Stony Point, within several hundred feet of Preddy Creek Church, NW corner of 7 1/2 minute Keswick Quadrangle. Exact location is not known.

ANGLE DRILLED: 60°

DIRECTION DRILLED: N 47° W

ELEVATION: about 500'

TOTAL DEPTH: 247'

SAMPLE DESCRIPTION: Richard S. Good, September 1966

GEOLOGIC LOG

Depth (ft.)	Thickness (ft.)	Description
0-86	86.0	No core
86.0-101.0	15.0	Felsic tuff: white to light gray, aphanitic with 0.1-0.25 mm brownish-red laminae. which are consistently at an angle of 75-80° with the core axis.
101.0-136.0	35.0	Mineralized zone: white to light-brown, vuggy, altered, brecciated felsite tuff with limonitic and goethitic boxworks and massive siderite; the altered felsite is cut by vuggy white quartz veins with limonitic boxwork and a few grains of chalcopyrite.

$$\frac{\phi}{\sum} = 10\% ?$$

$$\frac{< .03 \text{ mm}}{.03 \text{ mm}} = \frac{.3^+ \text{ mm}}{.3^+ \text{ mm}}$$

$$\begin{array}{r} 10065 \\ 54 \\ \hline 260 \\ 325 \\ \hline 3510 \end{array}$$

$$\begin{array}{r} 0165 \\ \hline .0325 \end{array}$$

136.0-136.9	0.9	Tuffs, altered and schistose: yellowish gray with 3 mm vein of pyrite and chalcopryite and containing white, powdery epsomite (X-ray analysis X-498) along schistosity laminae.
136.9-179.0	42.1	Felsic tuffs, altered: white, gray and light grayish red, aphanitic, with very thin (< 0.1 - 1 mm) red brown laminae which regularly form an angle of 70-80° to the core axis. Under the microscope one ^{light, pink-gray} sample (R-3229 at 175.8') of the felsite consists of 10% scattered, anhedral, corroded quartz grains (0.03-0.3 mm) set in a very fine-grained (.001-.01 mm) felted matrix of sericite, chlorite, and clays. ^{Part of the} quartz is also fine-grained and ^{is} scattered throughout the matrix ^{felt} matrix, thus the total quartz content can only be estimated at ^{more} than 10%. Microscopically, the red-brown laminae, which characterize most of the section, appear as delicate, wispy, undulate, parallel to subparallel structures of red-brown ^{sub-opaque} hematite and limonite, heavily peppered with pyrite and magnetite-ilmenite (.05 mm). The wispy structures are .02-.07 mm thick. A 0.3 mm quartz veinlet cuts across the structures, and a large (1.3 mm) rhomboid quartz grain with Boehm lamellae occurs next to the quartz vein. Rhomboid skeletal leucoxene is a prominent accessory.

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| 136.9-179.0 | 42.1 | <p>(cont.)
 Throughout most of the section (136.9-179.0') magnetite, rather than pyrite, which is a characteristic accessory, occurring (up to 3%) as an ^{occasionally perfectly} isolated octahedral ^{grains} (up to 0.1 mm). Black, acicular schorlite occurs as rare (< 0.1%) isolated needles up to 1 mm x .05 mm.</p> |
| 179.0-179.8 | 0.8 | <p>Banded felsic tuff: reddish chocolate and ^{reddish-}gray striped aphanite. The ^{coarser} banding, composed of collapsed and welded lapilli and cyclic ash falls, is gradational from the non-banded, or finely laminated tuffs of the preceding interval (136.9'-179.0').</p> |
| 179.8-180.2 | 0.4 | <p>Arenaceous tuff: grayish-white, coarse (1-2 mm) quartz-rich pyroclastic, ^{meta-}arkosic in appearance, consisting of 40% angular to rounded crystals in a cream coloured, altered, ^{clay} matrix. There are no fresh, identifiable feldspar grains. Pyrite occurs as 1 mm cubes in trace amounts. The contact with the fine ash of the preceding interval ^(179.0'-179.8') is sharp and conformable, at 70° to the core axis.</p> |
| 180.2-184.0 | 3.8 | <p>Andesitic tuff: gray to dark greenish-gray aphanite banded between 180.2' and 182.8' and massive between 182.8' and 184.0'. A ^{solid} 5 mm band of 2x2 mm pyrite crystals parallel with the pyroclastic bedding occurs at 180.5'. Contact with preceding section is sharp ^{and} conformable, at 70° to core axis.</p> |

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|-------------|------|--|
| 184.0-186.0 | 2.0 | Felsic and andesitic tuffs interbanded: light pink-gray aphanite and ^{light} gray-green, fine-grained ($\frac{1}{16}$ - $\frac{1}{4}$ mm) sandy tuff with graded bedding. Banding forms an angle of 75° to core axis. |
| 186.0-205.0 | 19.0 | Felsic tuff: pale red-brown to brownish-red ^{striped} aphanite with some gray-green ^{aphanitic} andesitic bands. The bands and laminae form an angle of 75° to the core axis. The andesitic bands contain accessory pyrite as minute 0.1-0.2 mm cubes. Micro faulting occurs from 191.0'-196.0'. From 200'-205' the tuffs are interbanded, with gray-green andesitic bands predominating. |
| 205.0-209 | 4.0 | Andesitic lapilli tuffs: ^{light} gray and gray-green ^{massive} aphanitic to coarse grained sandy tuff with flat and distorted, chaotic gray-green lapilli and micro faulting at 206'. |
| 209.0-220.5 | 11.5 | Andesitic tuffs: pinkish-gray and light gray-green, aphanitic, silty to ^{very} fine-grained sandy, bedded tuffs. Massive, aphanitic sample at 217.5' showed muscovite, chlorite and quartz (X-ray X-497). |
| 220.5-221.1 | 1.6 | Felsic tuff: brown and gray, varved aphanitic tuff with traces of pyrite as 0.1 mm cubes. Bands are 2-15 mm thick, of varying shades of alternating buff and red-brown. |
| 221.1-223.5 | 1.0 | |

- 222.1-230.1 Felsic tuffs: gray, coarse (0.5-1.0 mm) sandy, ^{tuff} with angular blue quartz, altered ^{white} feldspar clasts (0.5-2 mm) with some graded bedding.
- 230.1-231.5 1.4 Felsic tuff: ^{reddish-}gray, ashy, aphanite with sharp ^{apparent conformable} contact with gray, sandy tuff.
- 231.5-233.7 2.2 Andesitic tuff: gray, slightly green, sandy ^{tuff} with graded bedding, quartz vein 233.7'
- 233.7-235.0 1.3 Arenaceous ^{felsic} tuff: gray and white mottled coarse sandy, with ^{angular} 1-2 mm blue quartz (45%) and ^{1-2 mm} white, altered, feldspar ²⁵ crystals and clasts (40%) in a claylike matrix with traces of pyrite.
- 235.0-236.0 Felsic tuff with quartz vein: brown gritty, fine grained, massive
- 236.0-247.0 Arenaceous felsic tuff: very pale reddish coarse (1-2 m) to fine sandy, pyroclastic with angular blue quartz with ferruginous red rims, and cream coloured altered feldspars and ash, in aphanitic red-gray matrix. The quartz content is 40%. The coarse tuff resembles an altered arkose, but contains ^{occasional} gray-green, aphanitic, lenticular lapilli.

6.
GEOLOGIC SUMMARY

Well No. 1717

Depth, Feet	Thickness	Description	Age
0-86	86.0	No core <i>gray, white, pale brown, laminated felsic tuffs</i>	
86.0-101.0	15.0	Swift Run formation: gray, white, pale brown, laminated felsic tuffs	Late Precambrian (?)
101.0-136.0	35.0	Swift Run formation: hydrothermally altered, brecciated, felsic tuffs with quartz veins. Mineralization consists of pyrite, ^{apparently} scattered chalcopyrite, siderite, goethite	"
136.0-247.0	111.0	Swift Run formation: ^{gray, red brown, green} interbanded felsic and andesitic tuffs ranging in size from fine, massive, aphanitic ashes to coarse, sandy, quartzose beds resembling meta graywackes and meta arkoses. Delicate, ^{laminated} banding, ^{and} graded bedding, lapilli and crystal tuff beds are distinctive pyroclastic features.	"