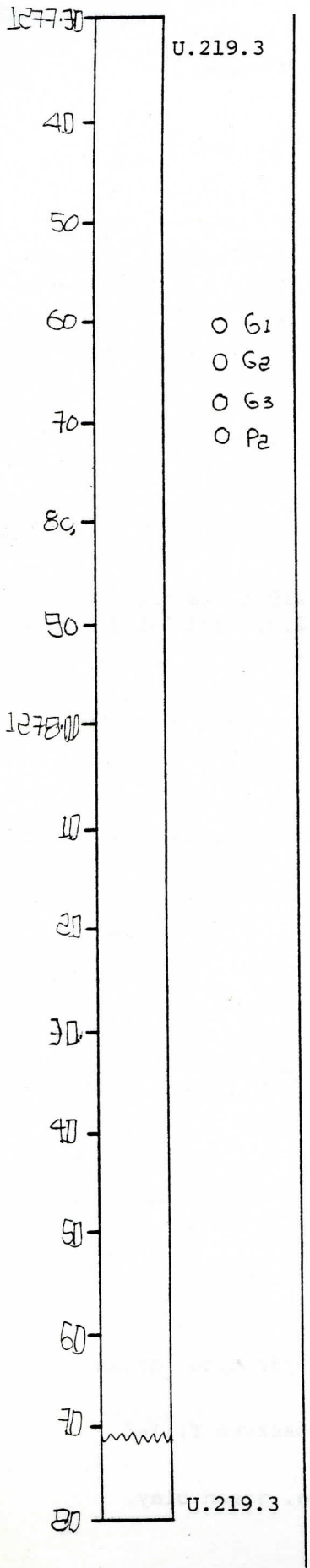
Visual Core Description Observer ...K. Hattori..

Depth Interval 127729 cm to 127871 cm

Box 219, Section 2



LITHOLOGY-PETROGRAPHY

U.219.3 (continues)

The same as U. 219.1. Grey-green coloured fine grained aphyritic basalt flow. Olivine phenocryst (?). (ϕ < 0.5 m

Grain size increases, alteration increases downward.

STRUCTURE

Massive

VESICLES/AMYGDALES

Vesicles - ϕ 2 ∿ 3 mm, filled with green clay, 2 vol.%.

FRACTURES - VEINS - BRECCIA

Practically no veins, no fractures.

ROCK ALTERATION

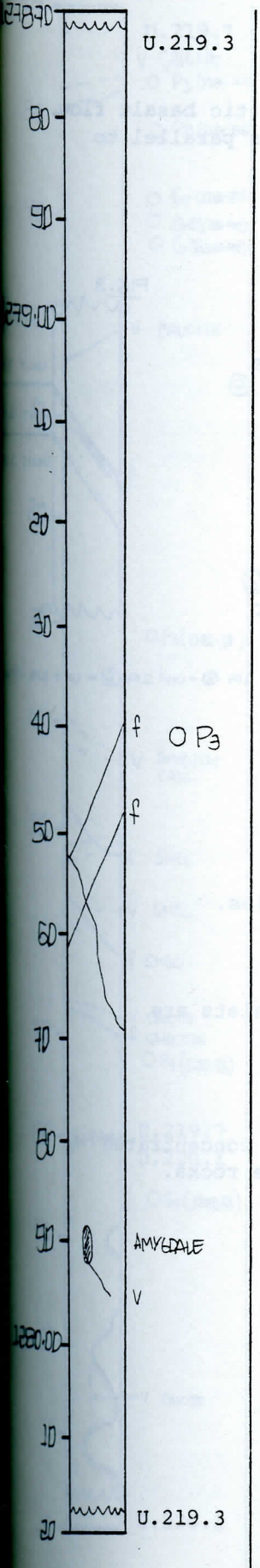
Grey clay disseminated throughout. Very fine-grained epidote (probably ?) disseminated.

Visual Core Description Observer K. Hattori

Depth Interval 127871 cm to 128018 cm

Box 219, Section 3

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

U.219.3 (continued)

Grey-green coloured, fine-grained (medium), aphyric basalt flow unit.

Probably olivine (?).

Very homogeneous

STRUCTURE

Massive

VESICLES/AMYGDALES

Sometimes vesicles ($\phi \sim 3$ mm) filled with grey clay can be observed.

Amygdales - calcite + green chlorite.

Vein - calcite.

FRACTURES - VEINS - BRECCIA

Fault planes are covered with grey clay.

ROCK ALTERATION

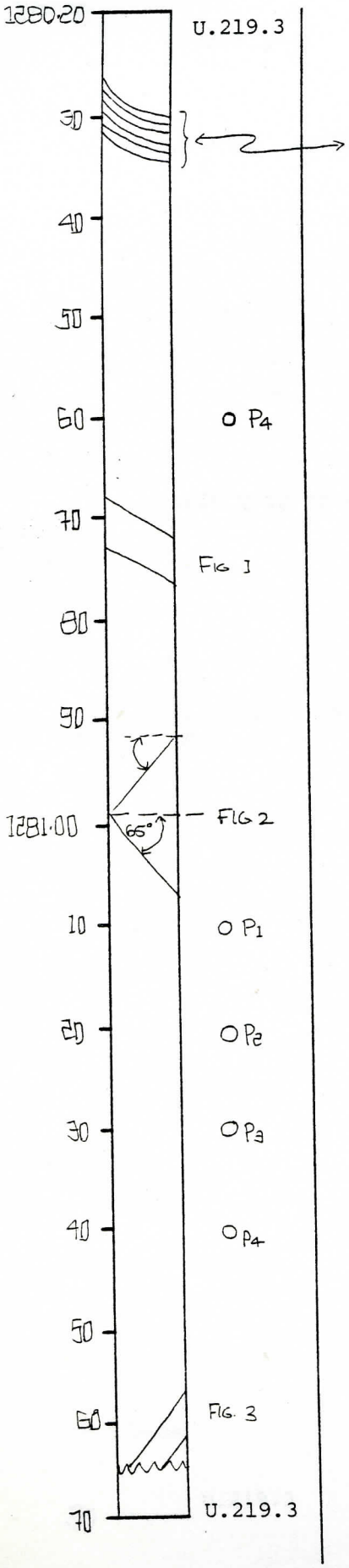
Grey clay is disseminated throughout.

Visual Core Description Observer K. Hattori

Depth Interval 108018 cm to 128165 cm

Box 219, Section 4

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

Unit 219.3, 219.5, 219.7, 219.9

Grey-green coloured medium-grained aphyritic basalt flow. Flow banding is observed. The banding is parallel to (a), (b) and (d).(65°)

Very homogeneous.

FIG. 1

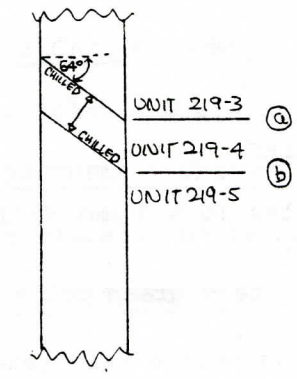


FIG. 2

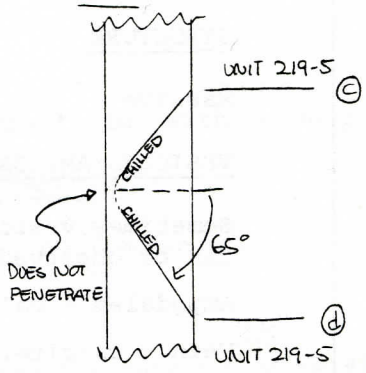
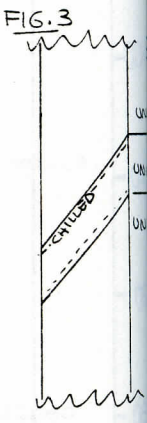


FIG. 3



NOTE a ‖ b ‖ d ; e ‖ f

UNIT 219-③ = unit 219-⑤ = unit 2

STRUCTURE

Massive

VESICLES/AMYGDALES

Actually lacking vesicles and amygdales.

FRACTURES - VEINS - BRECCIA

Tiny grey clay veinlets and calcite veinlets are observed sometimes.

ROCK ALTERATION

Pyrite is disseminated. It is concentrated inside and just surrounding area of dyke rocks.

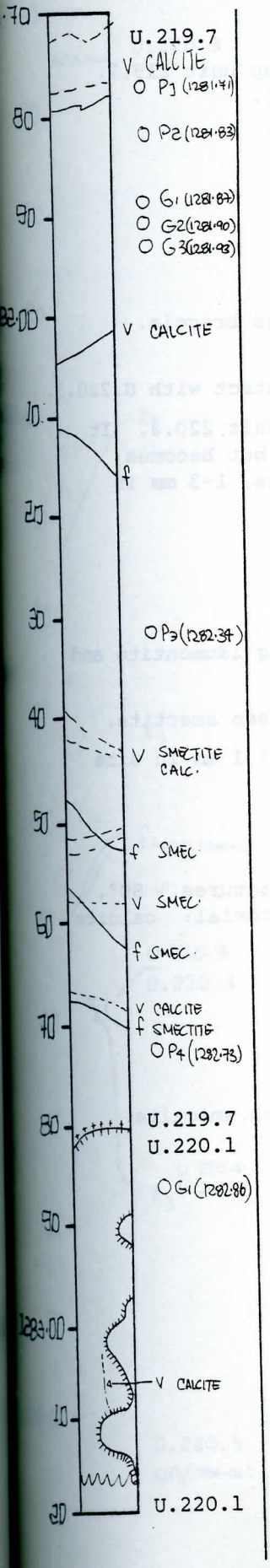
Chilled zones of dyke become clayey.

Visual Core Description Observer PTR

Depth Interval 1 2 8 1 6 5 cm to 1 2 8 3 1 7 cm

Box 220, Section 1

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

Continues U.219.7

Light gray, medium-grained, holocrystalline, equigranular aphyric basalt. Has a distinct spotted texture with light gray spots 1 mm across/against darker background. A 2 cm-wide fine-grained segregation vein occurs @ 1281.68 m. This contains abundant pyrite as does surrounding rock. This unit is interpreted as a flow.

U.220.1 Dark gray, very fine-grained, holocrystalline, aphyric basalt. Chilled contact at top dips ∿ 40°, but dyke margin is nearly parallel to core axis. It is chilled longitudinally against part of the overlying U.219.7.

STRUCTURE

U.219.7 Massive

U.220.1 Massive

VESICLES/AMYGDALES

U.219.7 <<1%, ∿ 1 mm, round, filled with smectite.

U.220.1 None

FRACTURES - VEINS - BRECCIA

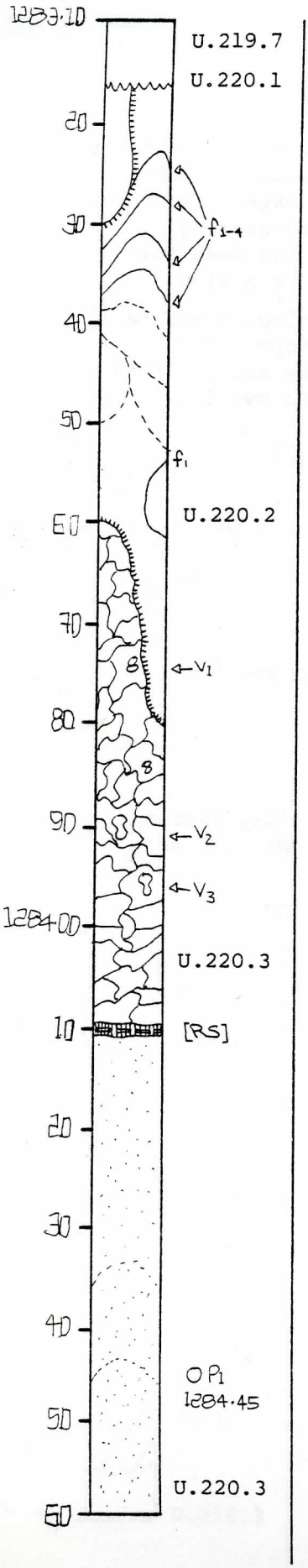
Fractures dip ∿ 60-70°, coated with smectite, sparse veinlets dip 30° and ∿ 60°, filled with smectite and minor calcite. (U.219.7)

U.220.1 One hairline calcite veinlet ∿ 90°.

Visual Core Description Observer J. Helgason

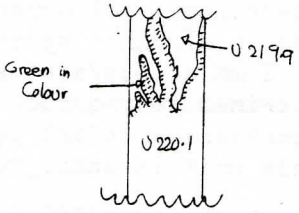
Depth Interval 1 2 8 3 1 7 cm to 1 2 8 4 6 4 cm

Box 220, Section 2



LITHOLOGY-PETROGRAPHY

Intrusive veins from Unit 220.1 split up unit 219.7. Green alteration rim on chilled contact.



U.220.2 Fine grained aphyric scoracious breccia. Colour: pinkish gray to greenish gray.

1284.10 Red scoracious, breccia on contact with U.220.3.

[RS] U.220.3 This unit is chilled against Unit 220.2. It is fine-grained close to upper contact but becomes porphyritic with plagioclase phenocrysts, 1-3 mm in size. Ground mass is medium grained.

VESICLES/AMYGDALES

U.220.1. None

U.220.2 1283.65 f_1 contains radiating laumontite and coating of green and black smectite.

V_{1-3} contain calcite in addition to green smectite.

U.220.3 Equally distributed vesicles, < 1 mm in size filled with dark green smectite.

FRACTURES - VEINS - BRECCIA

1283.30-1283.45 f_{1-4} Core angle of fractures ∿ 80°. Width ∿ hairline to 1/2 mm. Filling material: calcite + zeolite.

U.220.2 None

U.220.3 None

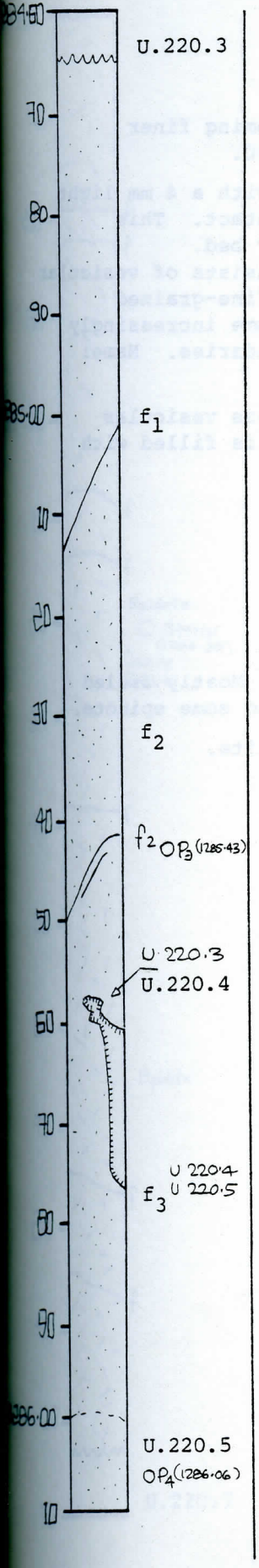
ROCK ALTERATION

U.220.3 Pervasive alteration ~~of~~ To greenish smectite.

Visual Core Description Observer J. Helgason

Depth Interval 1284.60 cm to 1286.17 cm

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

Continuing Unit 220.3

Number of phenocrysts decreases with depth and groundmass becomes coarser grained.

U.220.4 Fine grained aphyric unit with light green chilled margins. Green clayish alteration rim on contact within host rock.

U.220.5 (Unit 220.3 continuing.)

STRUCTURE

1284.95 - 1285.15 core to fracture angle = 60°

f_2 - core to fracture angle = 50°

f_3 - core to " " = 0°

FRACTURES - VEINS - BRECCIA

1284.95 - 1285.15 Fracture containing white fillings, laumontite ? width 2 mm to hairline.

f_2 - fractures, 1-2 mm wide, filled with calaite.

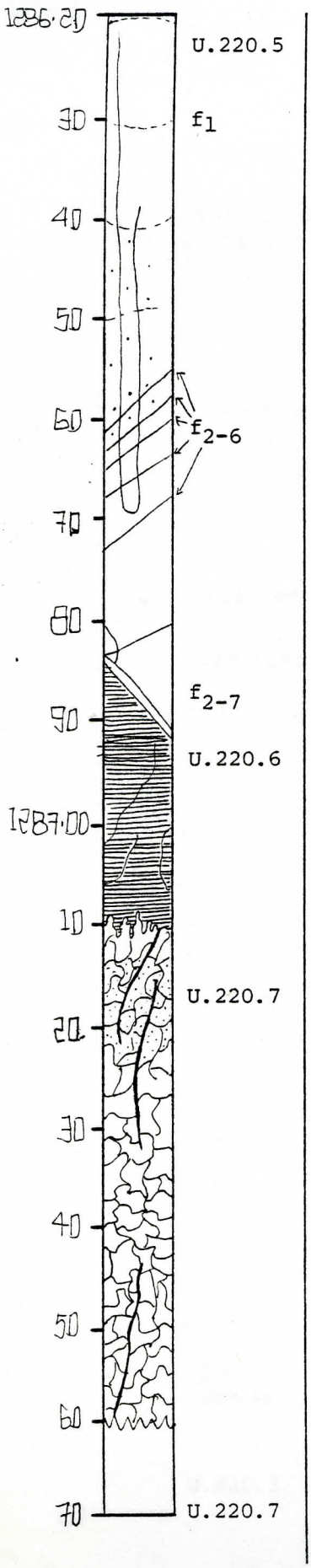
ROCK ALTERATION

Pervasive green smectite-alteration.

Visual Core Description Observer ...J. Helgaso

Depth Interval 1 2 8 6 1 7 cm to 1 2 8 7 6 0 cm

Box 220, Section 4



LITHOLOGY-PETROGRAPHY

Unit 220.5 continuing.

Sparsely phenocrystic and groundmass becoming finer grained down to chilled contact at 1286.80.

U.220.6 Very fine grained red material with a 4 mm light greenish gray alteration rim on upper contact. This reddish unit is most likely a sedimentary bed. Description changed: 8/5/78 HUS: Rock consists of vesicular lapilli (→ 5 cm ϕ) set in an apparently fine-grained matrix. Towards top of unit lapilli become increasingly flattened and whispy with indistinct boundaries. Name: Lapilli tuff.

U.220.7 Scoracious material, becoming less vesicular downwards. Vesicular part at 1287.20-30 is filled with laumontite in addition to epidote.

STRUCTURE

f_{2-6} core to fracture angle ∿ 35°

FRACTURES - VEINS - BRECCIA

f_1 extends from 1286.25-70, width 1-4 mm. Mostly filled with laumontite in addition to calcite and some epidote.

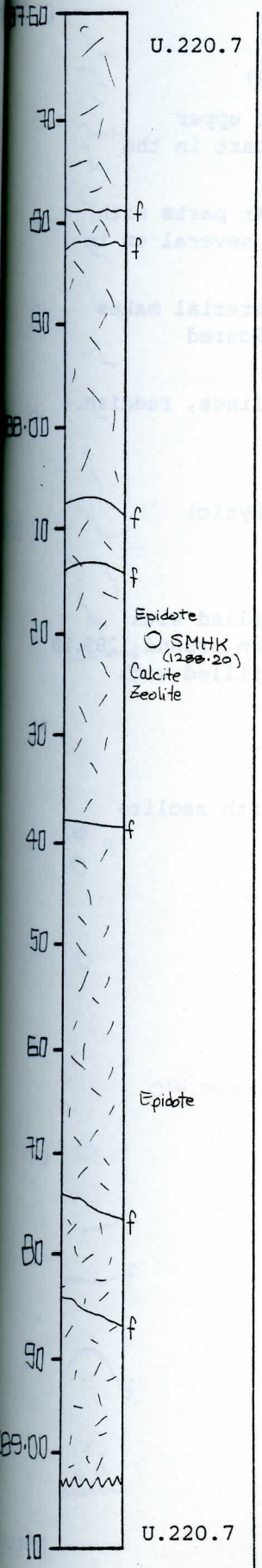
f_{2-7} width = 1-3 mm, filled with laumontite.

Visual Core Description Observer ..Viereck.....

Depth Interval 1 2 8 7 5 7 cm to 1 2 8 9 0 3 cm

Box 221, Section 1

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

Continues U.220.7

This unit is continuing from Box 220 throughout this whole box into Box 224 In this Box it's the upper scoriacious to massive part of a basaltic flow. Mixture of reddish brown, fine-grained sediment with highly porous, vesicular dark gray (occasionally purplish) basalt.

STRUCTURE

Scoriacious

VESICLES/AMYGDALES

Vesicles are irregularly shaped, up to 8 mm across, average ∿ 1 mm. Filling is zeolite, epidote, calcite.

FRACTURES - VEINS - BRECCIA

Fractures are nonplanar, with a dip of ∿ 20°, they mostly cut through sedimentary fillings.