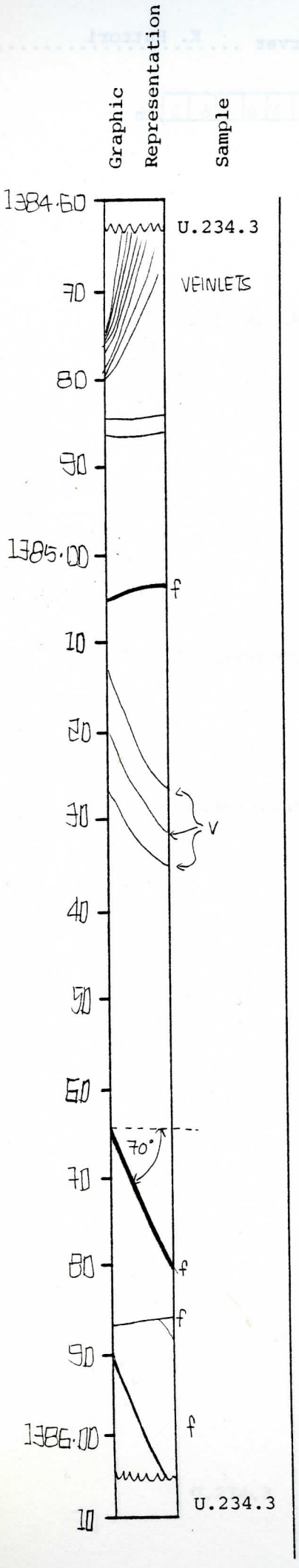
Visual Core Description

Observer K. Hattori

Depth Interval 1384.63 cm to 1386.05 cm

Box 237, Section 4



LITHOLOGY-PETROGRAPHY

Continuing U.234.3

Greenish-gray very fine-grained, aphyric basalt dyke.

Compared to section # 1-3 grain size is larger.

Sparsely plagioclase phenocrysts (1 mm) can be seen.

Very homogeneous.

STRUCTURE

Massive

VESICLES/AMYGDALES

None

FRACTURES - VEINS - BRECCIA

Many irregular fractures.

Many thin irregular green clay veinlets (< 1 mm).

ROCK ALTERATION

Pyrite is disseminated throughout the core (∿ 1 mm).

ICELAND RESEARCH DRILLING PROJECT - REYDARFJORDUR 1978

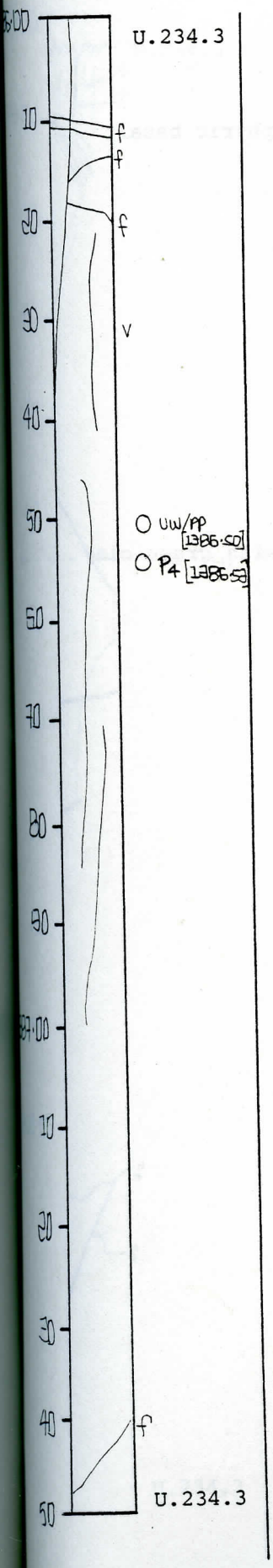
Visual Core Description

Observer K. Hattori

Depth Interval 1386 00 cm to 1387 50 cm

Box 238, Section 1

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

Continuing U.234.3

Greenish-gray fine-grained aphyric basalt dyke.

Very homogeneous.

STRUCTURE

Massive

VESICLES/AMYGDALES

None

FRACTURES - VEINS - BRECCIA

Many unoriented green clay veinlets

ROCK ALTERATION

Pyrite disseminated throughout the core.

Adjacent to the fault, green clay is pervasive.

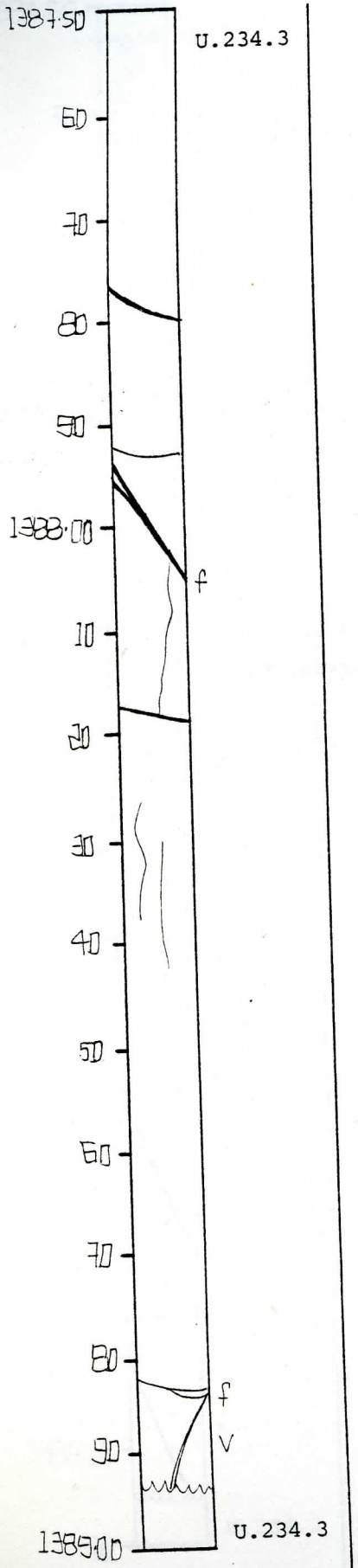
Visual Core Description

Observer K. Hattori

Depth Interval 1387.50 cm to 1388.93 cm

Box 238, Section 2

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

Continuing U.234.3

Greenish-gray, fine-grained, aphyric basalt dyke.

Very homogeneous.

STRUCTURE

Massive

VESICLES/AMYGDALES

None

FRACTURES - VEINS - BRECCIA

Many unoriented green clay veinlets.

1388.88 Calcite veinlet is associated with green clay veinlet.

ROCK ALTERATION

Pyrite is disseminated ($\phi \sim 1$ mm).

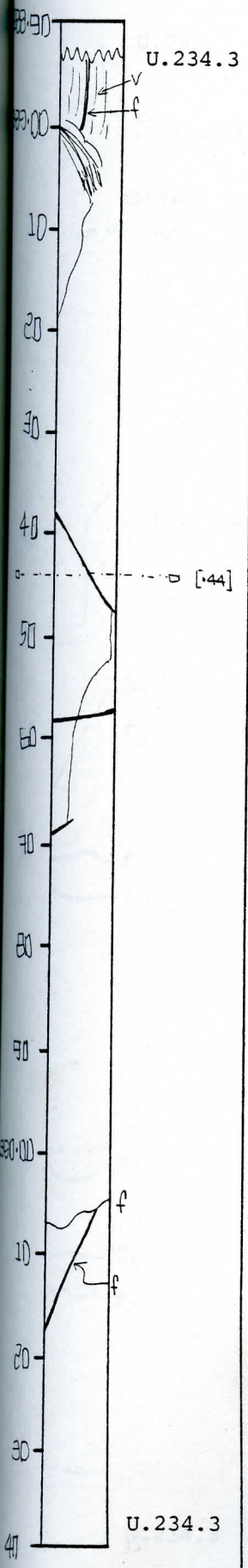
ICELAND RESEARCH DRILLING PROJECT - REYDARFJORDUR 1978

Visual Core Description Observer K. Hattori

Depth Interval 1388.93 cm to 1389.44 cm

Box 238, Section 3

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

Continuing U.234.3

Greenish-gray fine-grained, aphyric basalt dyke.

Very homogeneous.

Compared to section # 1, this basalts appear coarser grained.

STRUCTURE

Massive

VESICLES/AMYGDALES

None

FRACTURES - VEINS - BRECCIA

1388.93-1389.00 Many green clay veinlets run parallel to faults. Calcite veinlets associated with such vein swarm.

1389.15-1389.90 Hair-thin green clay veinlets run irregularly.

1390.00-1390.05 Many green clay veinlets and several calcite veinlets run parallel to fault planes.

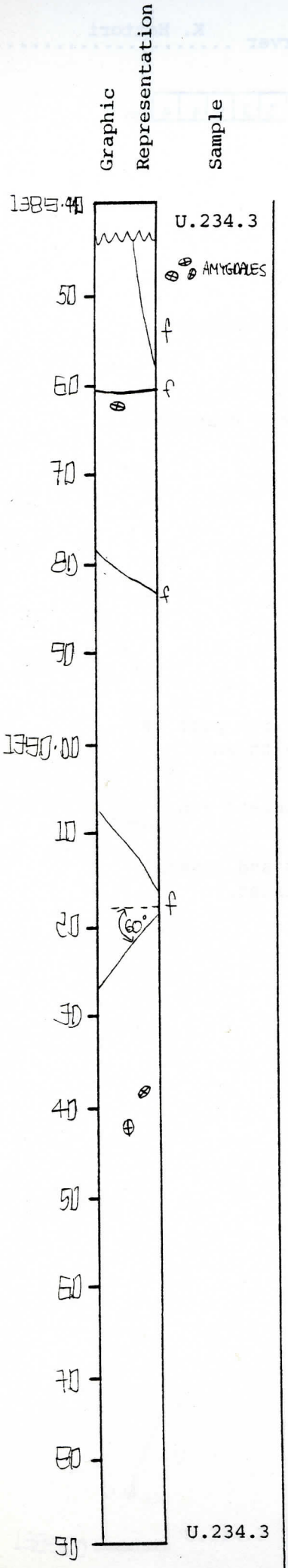
ROCK ALTERATION

Pyrite can be observed ($\phi \sim 1$ mm).

Visual Core Description Observer K. Hattori

Depth Interval 1 3 8 9 4 4 cm to 1 3 9 1 9 0 cm

Box 238, Section 4



LITHOLOGY-PETROGRAPHY

Continuing U.234.3

Greenish-gray, fine-grained, equigranular, aphyric basalt dyke.

Compared to section 1, & 2, this is slightly coarser grained.

Very homogeneous.

STRUCTURE

Massive

VESICLES/AMYGDALES

No vesicles

Amygdales - $\phi \sim 1.5$ cm filled with green clay and calcite. Small amount of quartz.

FRACTURES - VEINS - BRECCIA

Green clay veinlets. No orientation.

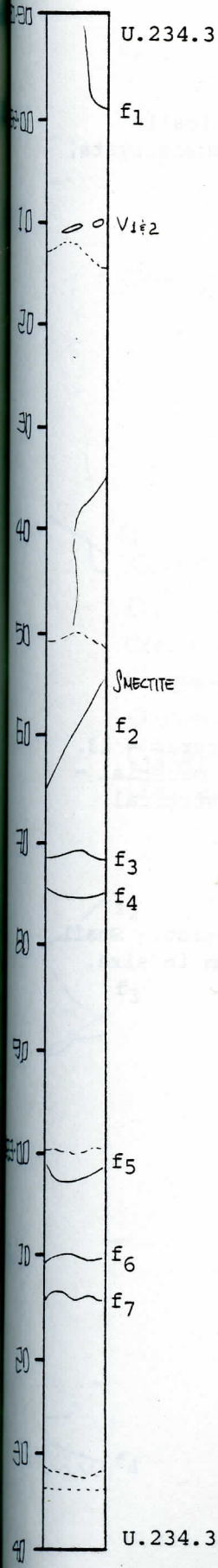
ICELAND RESEARCH DRILLING PROJECT - REYDARFJORDUR 1978

Visual Core Description Observer J. Helgason

Depth Interval 139190 cm to 139340 cm

Box 239, Section 1

Graphic Representation | Sample



LITHOLOGY-PETROGRAPHY

Continuing U.234.3

Fine -grained, equigranular. Practically without vesicles. Flow structures absent. Very sparse, plagioclase phenocrysts, 1-2 mm in size.

STRUCTURE

f_2 - core to fracture angle = 70°

f_3 - core to " " = 10°

f_4 - core to " " = 5°

f_5 - core to " " = 48°

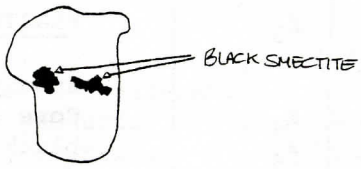
f_6 - core to " " = 45°

f_7 - core to " " = 45°

VESICLES/AMYGDALES

Very sparse.

v_{1-2} - vesicles 10 mm in size, filled with black smectite.



FRACTURES - VEINS - BRECCIA

f_1 - vertical fracture, 1-2 mm wide, filled with green and black smectite.

Black smectite is dominant filling material in fractures.

ROCK ALTERATION

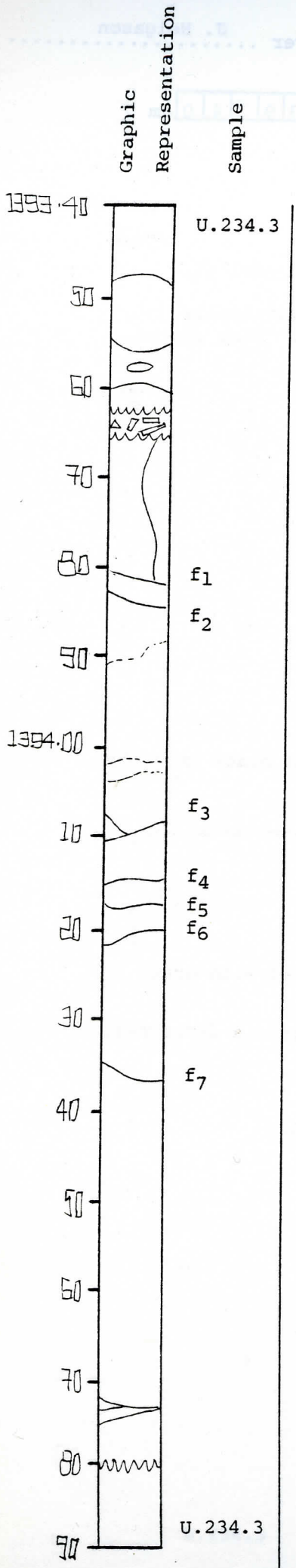
Pervasive light green smectite alteration.

Visual Core Description

Observer J. Helgason

Depth Interval 1 3 9 3 4 0 cm to 1 3 9 4 8 0 cm

Box 239, Section 2



LITHOLOGY-PETROGRAPHY

Continuing unit 234.3

Finely grained, equigranular, practically without vesicles. Very sparse plagioclase phenocrysts, 1-2 mm in size. Flow structures absent.

STRUCTURE

f_1 - core to fracture angle = 15°
f_2 - core to " " = 15°
f_3 - core to " " = 20°
f_4 - core to " " = 15°
f_5 - core to " " = 0°
f_6 - core to " " = 20°
f_7 - core to " " = 10°

VESICLES/AMYGDALES

Vesicles absent.

FRACTURES - VEINS - BRECCIA

Interval 1393.70-1394.40 m - number of fractures = 13. Core angle ∿ 10-20°, width < 1 mm. Filling material - black smectite. In addition there are two vertical fractures.

ROCK ALTERATION

Minor light green pervasive smectite alteration. Small patches of red alteration products, ∿ 0.1 mm in size, probably altered olivine.

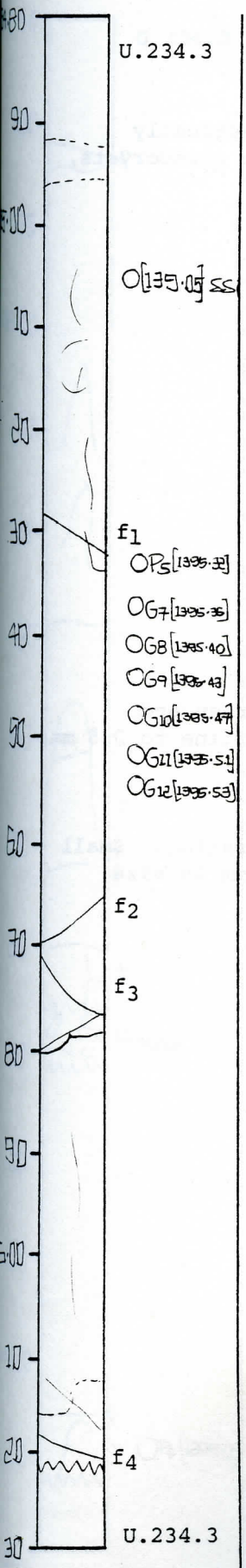
ICELAND RESEARCH DRILLING PROJECT - REYDARFJORDUR 1978

Visual Core Description Observer J. Helgason

Depth Interval 1 3 9 4 8 0 cm to 1 3 9 6 2 1 cm

Box 239, Section 3

Graphic Representation | Sample



LITHOLOGY-PETROGRAPHY

Continuing Unit 234.3

Fine -grained, equigranular aphyric material, practically without vesicles. Flow structures absent.

STRUCTURE

f_1 - core to fracture angle = 50°

f_2 - core to " " = 55°

f_3 - core to " " = 55°

f_4 - core to " " = 50°

VESICLES/AMYGDALES

None

FRACTURES - VEINS - BRECCIA

Filling material in fractures = grayish green and black smectite.

ROCK ALTERATION

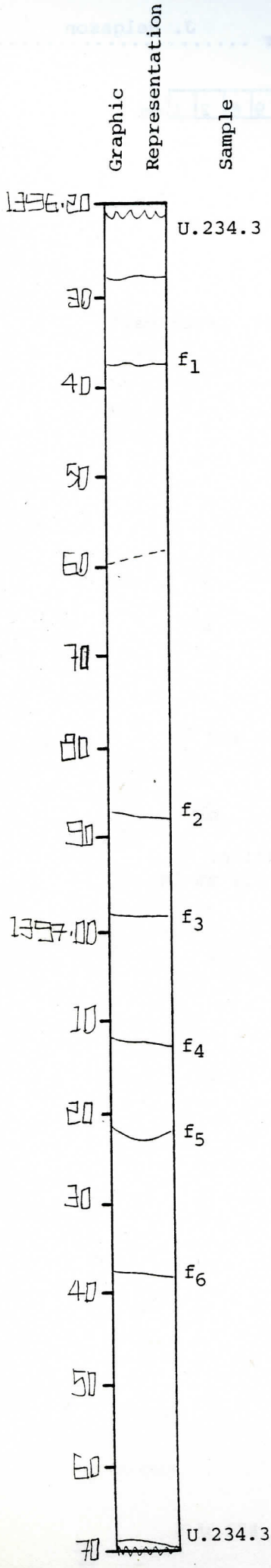
Minor light green, pervasive smectite alteration. Small patches of red alteration products, ∿ 0.1 mm in size. Probably altered olivine crystals.

Visual Core Description

Observer J. Helgason

Depth Interval 1396.21 cm to 1397.70 cm

Box 239, Section 4



LITHOLOGY-PETROGRAPHY

Continuing U.234.3

Fine -grained, equigranular material, practically without vesicles. Very sparse plagioclase phenocrysts, 1-3 mm in size.

STRUCTURE

f_1 - core to fracture angle = 5°
f_2 - core to " " = 0°
f_3 - core to " " = 10°
f_4 - core to " " = 0°
f_5 - core to " " = 10°
f_6 - core to " " = 5°

VESICLES/AMYGDALES

None

FRACTURES - VEINS - BRECCIA

Filling material in fractures: grayish green and black smectite. Width of fractures: hairline to 0.5 mm.

ROCK ALTERATION

Minor light green pervasive smectite alteration. Small patches of red alteration products ∿ 0.1 mm in size, probably altered olivine.

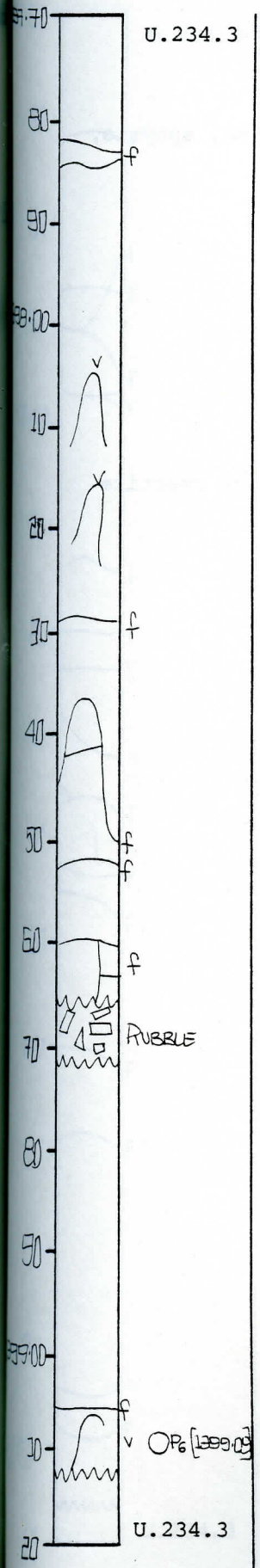
ICELAND RESEARCH DRILLING PROJECT - REYDARFJORDUR 1978

Visual Core Description Observer RHW

Depth Interval 1397.70 cm to 1399.12 cm

Box 240, Section 1

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

Continuing Unit 234.3

Fine-grained, grayish-green, holocrystalline, aphyric, equigranular basalt.

STRUCTURE

Massive

VESICLES/AMYGDALES

Absent

FRACTURES - VEINS - BRECCIA

Fractures subhorizontal (0-10°) or near vertical (70°) lined with black smectite or chlorite (?). Veinlets hairline, generally high angles (70°), filled as with fractures.

Visual Core Description

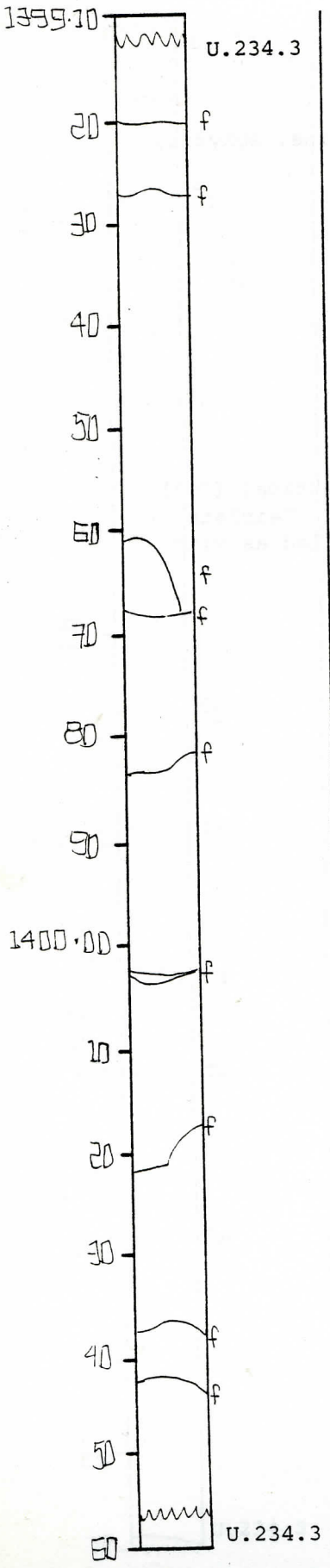
Observer RHW

Depth Interval 1 3 9 9 1 2 cm to 1 4 0 0 5 7 cm

Box 240, Section 2

Graphic Representation

Sample



LITHOLOGY-PETROGRAPHY

Continuing Unit 234.3

Fine-grained, greenish-gray, holocrystalline, aphyric, equigranular basalt.

STRUCTURE

Massive

VESICLES/AMYGDALES

Absent

FRACTURES - VEINS - BRECCIA

Fractures at 0-10° or 50°. Lined with black smectite or chlorite (?).

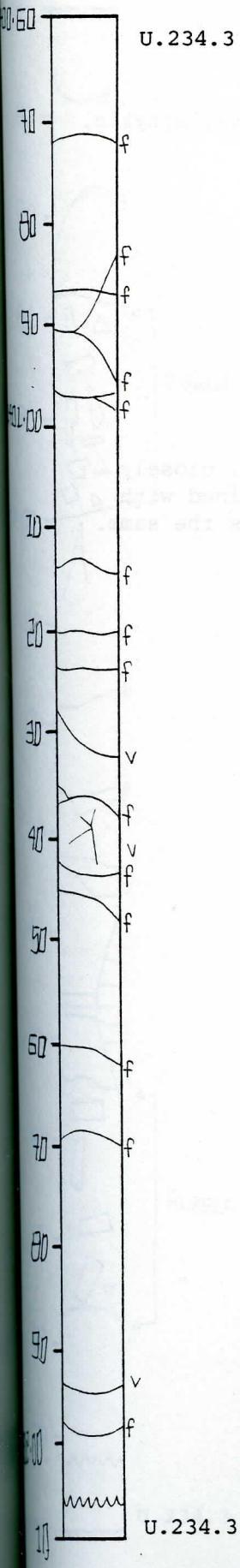
ICELAND RESEARCH DRILLING PROJECT - REYDARFJORDUR 1978

Visual Core Description Observer RHW

Depth Interval 140057 cm to 140206 cm

Box 240, Section 3

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

Continuing Unit 234.3

Fine-grained, greenish-gray, holocrystalline, aphyric, equigranular basalt.

STRUCTURE

Massive

VESICLES/AMYGDALES

Absent

FRACTURES - VEINS - BRECCIA

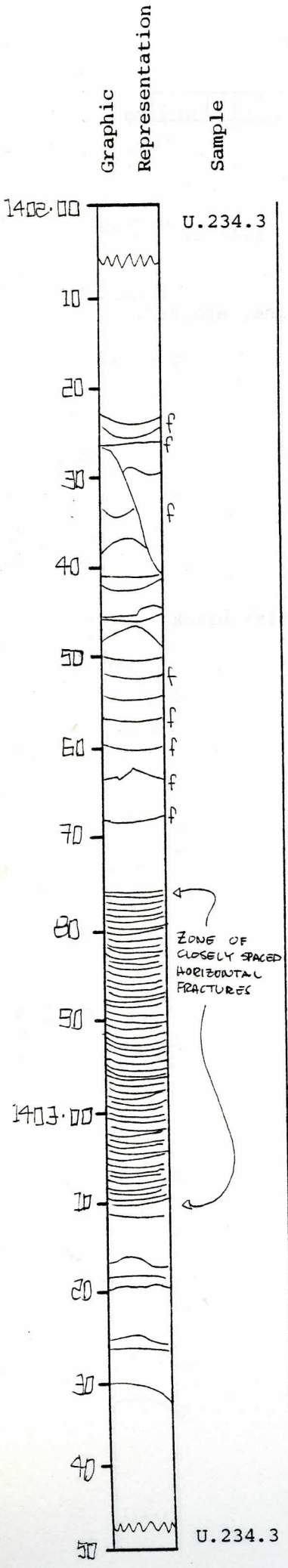
Fractures 0-15°, several @ 60-70°, lined with black smectite or chlorite (?).

Visual Core Description

Observer RHW

Depth Interval 140206 cm to 140348 cm

Box 240, Section 4



LITHOLOGY-PETROGRAPHY

Continuing Unit 234.3

Fine-grained, greenish-gray, holocrystalline, aphyric, equigranular basalt.

STRUCTURE

Massive

VESICLES/AMYGDALES

Absent

FRACTURES - VEINS - BRECCIA

Fractures mostly horizontal. Zone of many, closely spaced, horizontal fractures. Fractures lined with dark green smectite of chlorite (?). Veins the same.

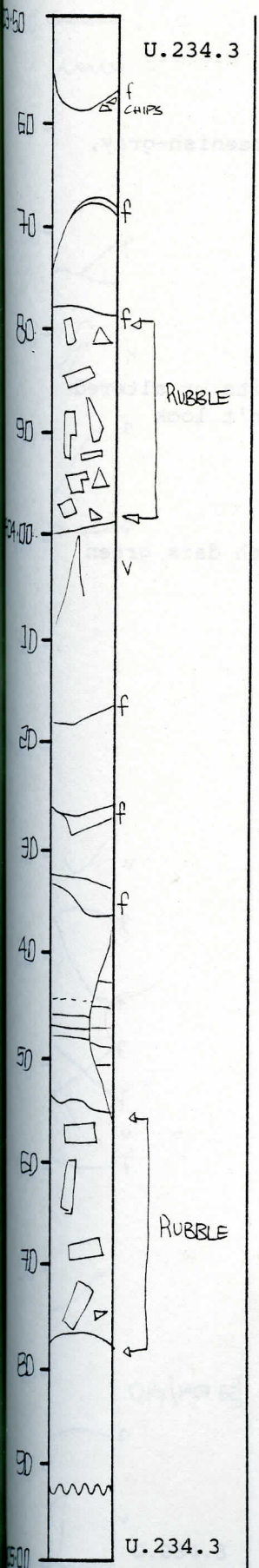
ICELAND RESEARCH DRILLING PROJECT - REYDARFJORDUR 1978

Visual Core Description Observer RHW

Depth Interval 1 4 0 3 4 8 cm to 1 4 0 4 9 2 cm

Box 241, Section 1

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

Continuing Unit 234.3

Fine-grained, aphyric, holocrystalline, greenish-gray, equigranular basalt.

STRUCTURE

Massive

VESICLES/AMYGDALES

Absent

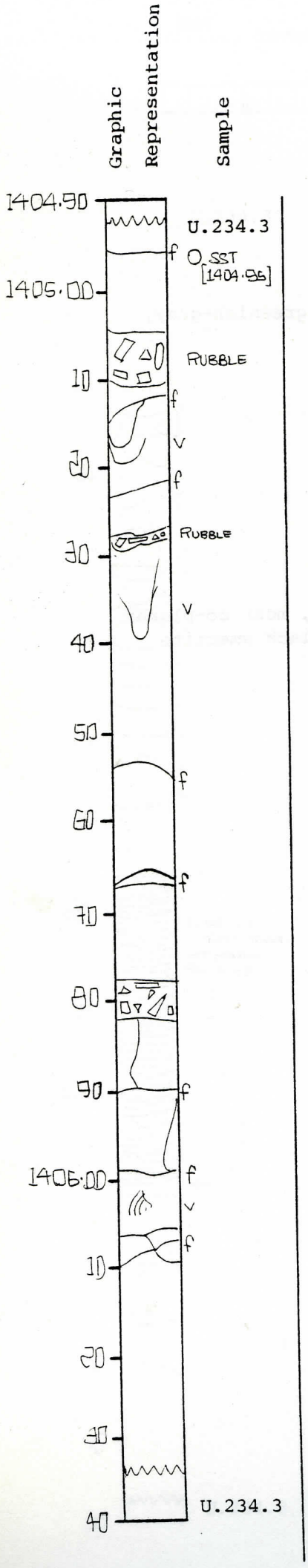
FRACTURES - VEINS - BRECCIA

Fractures numerous, several @ ∿ 70°, 30°, most co-planar and subhorizontal (0-10°). Lined with black smectite (chlorite?).

Visual Core Description Observer RHW

Depth Interval 1 4 0 4 9 2 cm to 1 4 0 6 3 4 cm

Box 241, Section 2



LITHOLOGY-PETROGRAPHY

Continuing Unit 234.3

Fine-grained, aphyric, holocrystalline, greenish-gray, equigranular basalt.

STRUCTURE

Massive

VESICLES/AMYGDALES

Rare, very small (< 1 mm) patches of zeolite or altered phenocrysts--difficult to tell. Zones don't look euhedral.

FRACTURES - VEINS - BRECCIA

Fractures and veins mostly 0-25° lined with dark green smectite (chlorite ?).

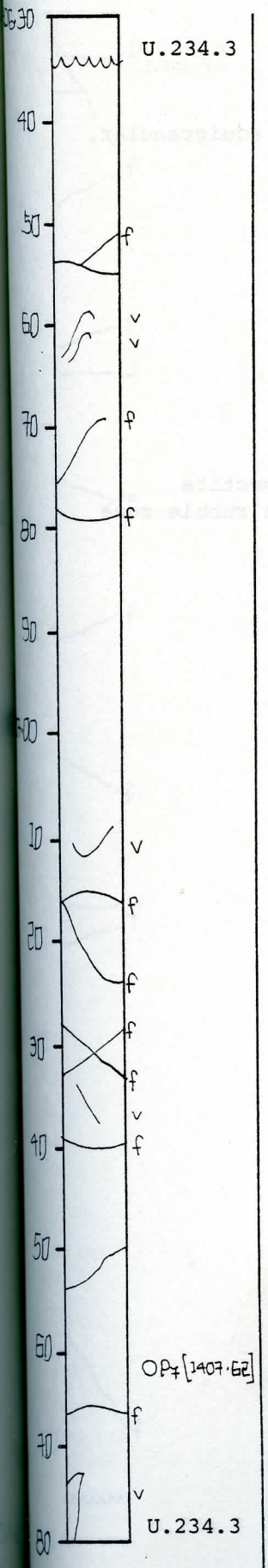
ICELAND RESEARCH DRILLING PROJECT - REYDARFJORDUR 1978

Visual Core Description Observer RHW

Depth Interval 1 4 0 6 3 4 cm to 1 4 0 7 8 5 cm

Box 241, Section 3

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

Continuing Unit 234.3

Greenish-gray, aphyric, holocrystalline, equigranular, fine-grained basalt.

STRUCTURE

Massive

VESICLES/AMYGDALES

Occasional, small zeolite patches, (< 1 mm) scattered throughout.

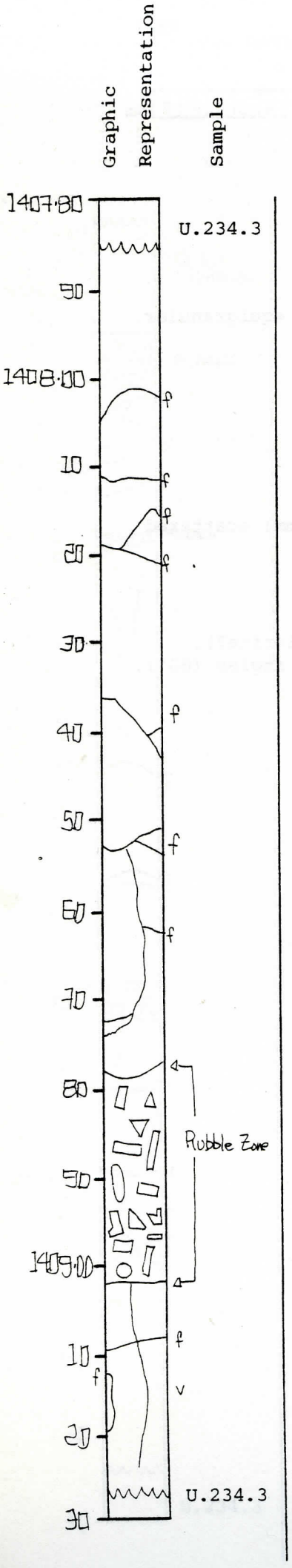
FRACTURES - VEINS - BRECCIA

Fractures 0-30°, lined with smectite (chlorite?). Occasional veins and fractures at higher angles (60°).

Visual Core Description Observer RHW

Depth Interval 1407.85 cm to 1409.27 cm

Box 241, Section 4



LITHOLOGY-PETROGRAPHY

Continuing Unit 234.3

Greenish-gray, aphyric, holocrystalline, equigranular, fine-grained, basalt.

STRUCTURE

Massive

VESICLES/AMYGDALES

Scattered, rare zeolite blebs (< 1 mm).

FRACTURES - VEINS - BRECCIA

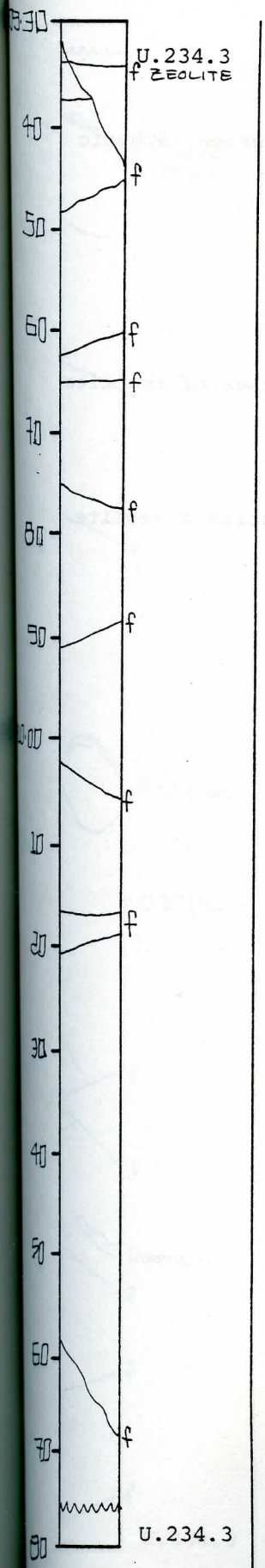
Fractures at varied angles, dark green smectite (chlorite) lined. One fracture lining in rubble zone was about 1 mm of zeolite.

Visual Core Description Observer Viereck

Depth Interval 140927 cm to 141076 cm

Box 242, Section 1

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

Continuing Unit 234.3

Uniform, fine-grained, equally granular, green, aphyric, basaltic dyke.

STRUCTURE

Massive

VESICLES/AMYGDALES

Few clusters of vesicles are irregularly distributed. < 1 mm across filled with smectite and/or zeolite.

FRACTURES - VEINS - BRECCIA

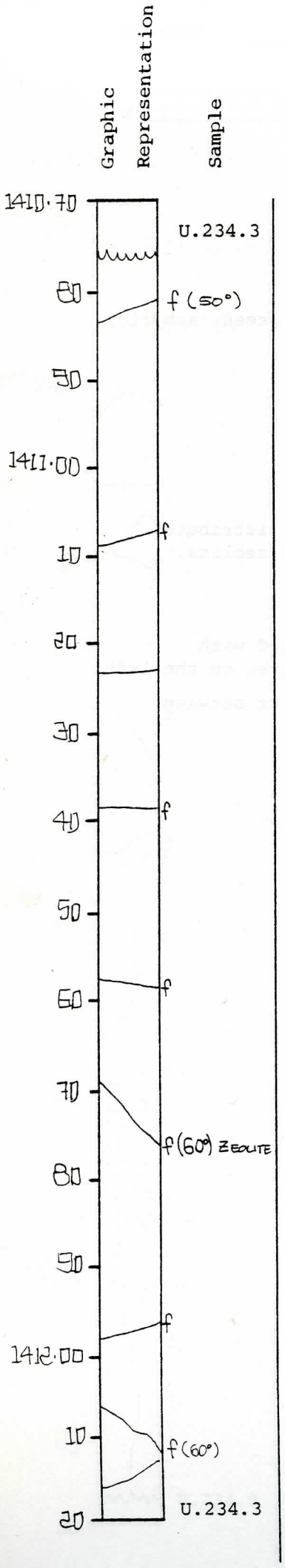
Fractures are normally subplanar and coated with smectite. If coated different look as noted on the left.

Dip of fractures is either subhorizontal or between 30°-40°.

Visual Core Description Observer Viereck

Depth Interval 1 4 1 0 7 6 cm to 1 4 1 2 2 2 cm

Box 242, Section 2



LITHOLOGY-PETROGRAPHY

Continuation of Unit 234.3

Uniform, fine-grained, equally granular, green, aphyric basaltic dyke.

STRUCTURE

Massive

VESICLES/AMYGDALES

Vesicles are almost absent, few tiny patches of smectite are visable.

FRACTURES - VEINS - BRECCIA

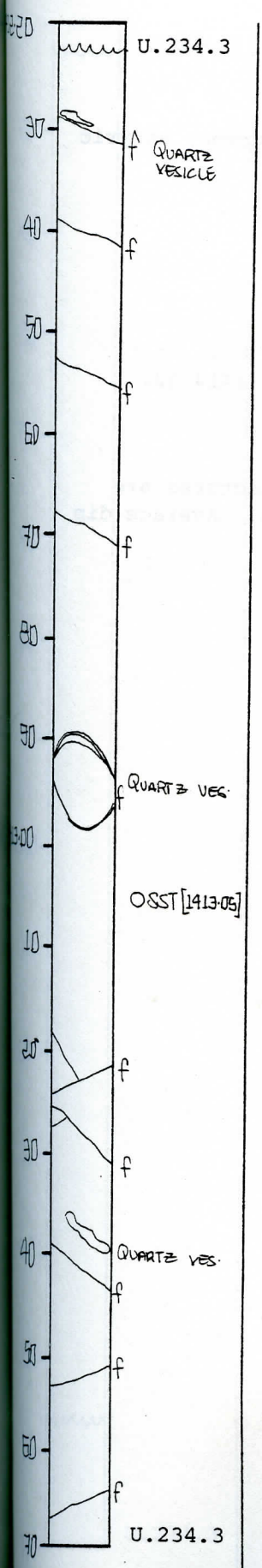
Fractures are subplanar, coated with smectite ± zeolite (if not listed in the left column).

Visual Core Description Observer Viereck

Depth Interval 1 4 1 2 2 2 cm to 1 4 1 3 7 5 cm

Box 242, Section 3

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

Continuing U.234.3

Uniform, fine-grained, equally granular, green, aphyric, basaltic dyke.

STRUCTURE

Massive

VESICLES/AMYGDALES

Few irregularly shaped < 40 mm quartz ± calcite ± zeolite filled vesicles at 1412.29, 1412.90 and 1413.35.

FRACTURES - VEINS - BRECCIA

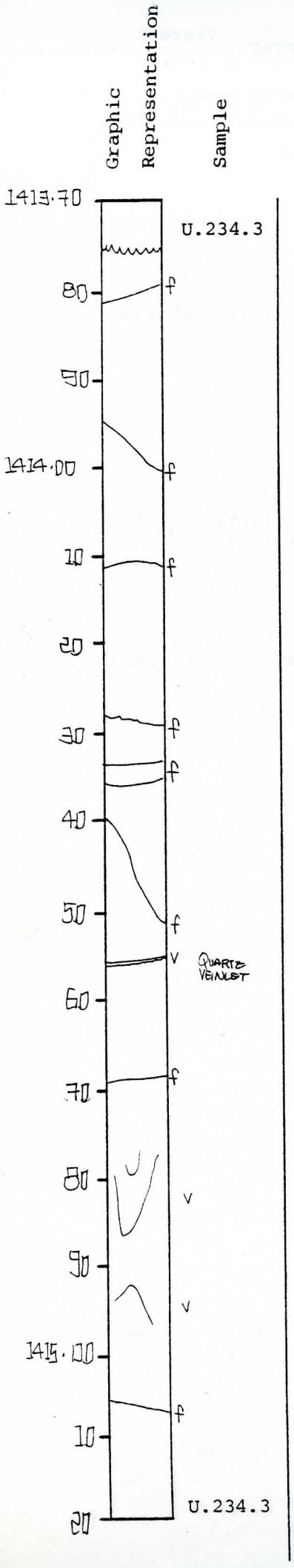
Subplanar fractures are coated with smectite. Average dip is 25°-40°. Smectite veins at 1412.80 show uniform dip of ∿ 60°.

Visual Core Description

Observer Viereck

Depth Interval 1 4 1 3 7 5 cm to 1 4 1 5 2 2 cm

Box 242, Section 4



LITHOLOGY-PETROGRAPHY

Continuing Unit 234.3

Uniform, fine-grained, equally granular, green, aphyric basaltic dyke.

STRUCTURE

Massive

VESICLES/AMYGDALES

One vesicle cluster filled with quartz at 1414.02.

FRACTURES - VEINS - BRECCIA

Veinlets usually lined with smectite. Fractures are planar to subplanar, coated with smectite. Average dip ∿ 20°. Two dip steeply with 60°-70°.

ICELAND RESEARCH DRILLING PROJECT - REYDARFJORDUR 1978

Visual Core Description

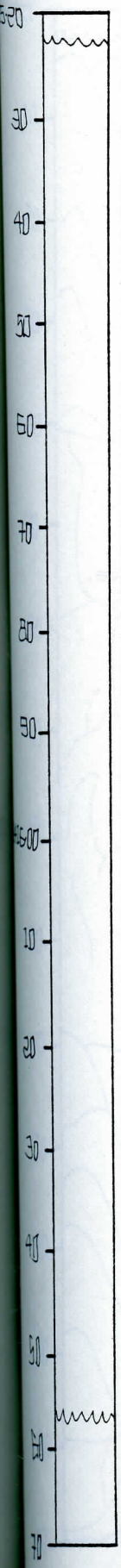
Observer K. Hattori

Depth Interval 1 4 1 5 2 2 cm to 1 4 1 6 5 7 cm

Box 243, Section 1

Graphic Representation

Sample



LITHOLOGY-PETROGRAPHY

Continuing Unit 234.3

Greenish-gray coloured, medium-fine-grained, equigranular aphyric basalt dyke. Plagioclase (ϕ < 0.5 mm).

STRUCTURE

Massive

VESICLES/AMYGDALES

None

FRACTURES - VEINS - BRECCIA

Many green clay veinlets

ROCK ALTERATION

Adjacent to faults; green clay occurs commonly.

Pyrite is rarely found.

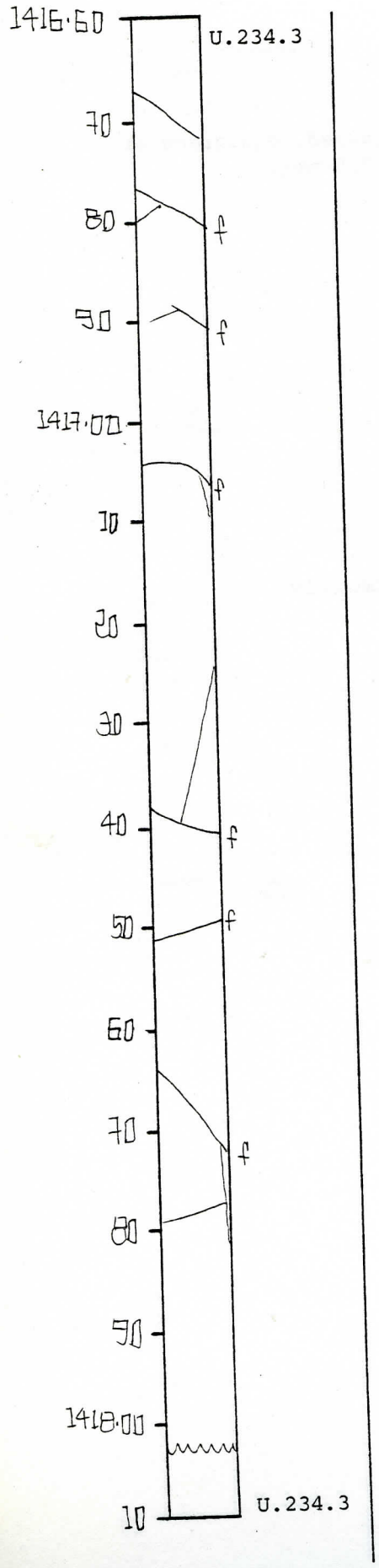
Visual Core Description

Observer K. Hattori

Depth Interval 1 4 1 6 5 7 cm to 1 4 1 8 0 2 cm

Box 243, Section 2

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

Continuing U.234.3

Greenish-gray, medium to fine-grained equigranular, aphyric basalt dyke.

STRUCTURE

Massive

VESICLES/AMYGDALES

None

FRACTURES - VEINS - BRECCIA

Many green clay veinlets.

ROCK ALTERATION

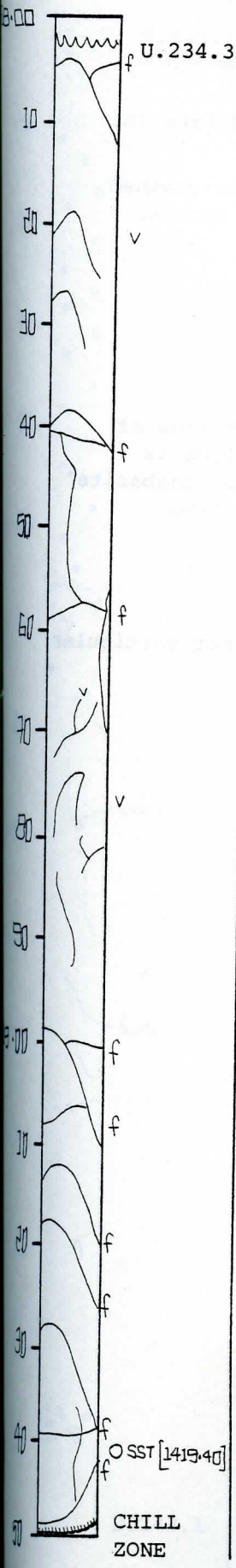
Adjacent to faults and veins, green clay is pervasive.

Visual Core Description Observer KH/RHW

Depth Interval 1 4 1 8 0 2 cm to 1 4 1 9 5 2 cm

Box 243, Section 3

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

Continuing Unit 234.3

Greenish-gray, holocrystalline, aphyric, equigranular basalt.

2419.10-2419.32 Becomes very, very fine-grained, glassy.

2419.40 Chill Zone.

STRUCTURE

Massive

VESICLES/AMYGDALES

Absent

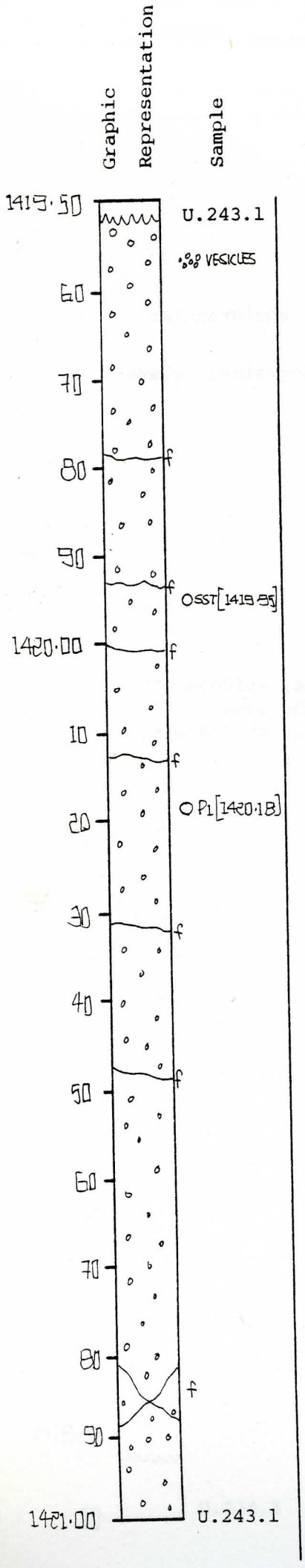
FRACTURES - VEINS - BRECCIA

Most fractures @ 70°, filled with calcite, epidote (?), smectite or chlorite. Veins mostly in the same orientation, up to 1 mm thick and probably filled with above material.

Visual Core Description Observer RHW

Depth Interval 1419.52 cm to 1421.06 cm

Box 243, Section 4



LITHOLOGY-PETROGRAPHY

Starting Unit 243.1

Chilled margin at top of section is chilled into the upper unit (234.3 is younger).

Amygdaloidal, purple to brown, altered, fine-grained, holocrystalline basalt. Probably flow top scoria.

STRUCTURE

Amygdaloidal

VESICLES/AMYGDALES

Amygdules small, zeolite filled, grading in zone of larger vesicles, also zeolite filled. Zeolite is laumontite plus another unknown, similar to "chabazite" of higher units. Epidote and smectite are also present, as well as minor calcite.

FRACTURES - VEINS - BRECCIA

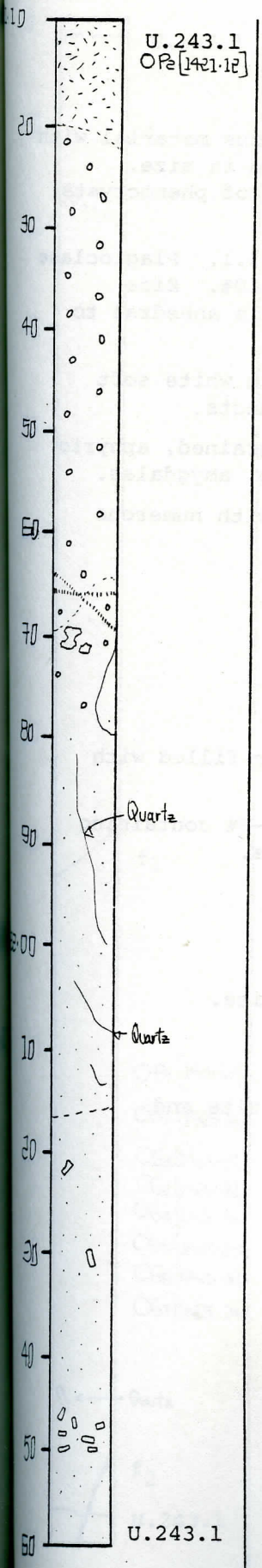
Fractures sub-horizontal (0-10°). Lining not particular.

Visual Core Description Observer J. Helgason

Depth Interval 1421.06 cm to 1422.60 cm

Box 244, Section 1

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

Continues from U.243.1.

1421.06-1421.20. Finely grained, ununiform scoraceous looking material with plagioclase phenocrysts of unequal size up to 3 mm.

1421.20-1421.70. Finely grained, grayish, aphyric and highly vesicular part of U.243.1

1421.70-1422.60. Finely grained aphyric, scoraceous material of dark gray colour. Amygdales are quartz and smectite.

VESICLES/AMYGDALES

1421.20-1421.70. This part of Unit 243.1 has vesicles up to 20%, of rounded shape. Size of vesicles mostly 2-10 mm. Amygdales are of reddish clay, greenish smectite and calcite.

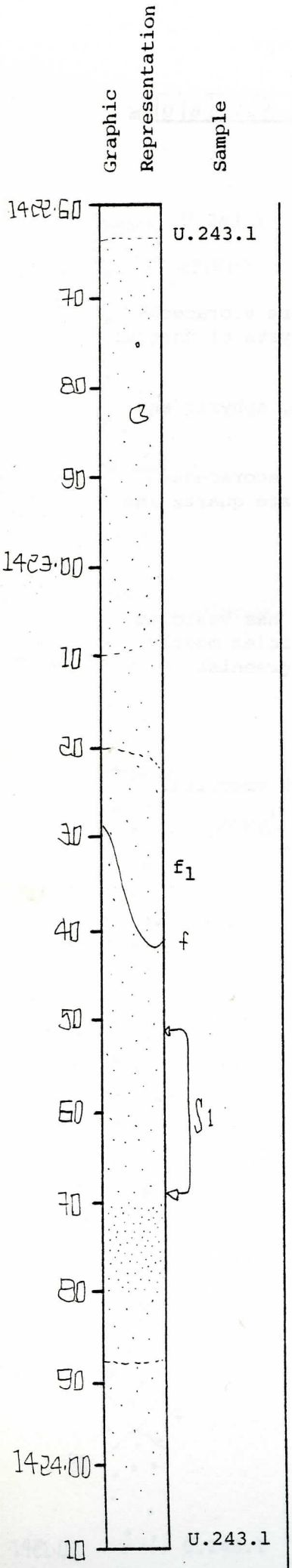
ROCK ALTERATION

Pervasive alteration of greenish and black smectite.

Visual Core Description Observer J. Helgason

Depth Interval 1422.60 cm to 1424.11 cm

Box 244, Section 2



LITHOLOGY-PETROGRAPHY

Continuing U.243.1

1422.60-1423.00. Finely grained, scoraceous material with sparse plagioclase phenocrysts, 0.5 - 3 mm in size. Shape of phenocrysts is anhedral. Amount of phenocrysts ∿ 2-4%.

1423.00-1423.50. Massive part of Unit 243.1. Plagioclase porphyritic with phenocrysts amounting ∿ 10%. Size ranges from 0.1 to 2 mm. Shape of crystals anhedral to euhedral.

$\int_1$ 1423.52-1423.68. Scoraceous material with white soft amygdales and light green alteration products.

1423.70-1423.80. Highly vesicular fine-grained, aphyric material, containing soft, white zeolitic, amygdales.

1423.80-1424.11. Fine grained material with numerous small vesicles of irregular shape.

STRUCTURE

f_1 - core to angle fracture = 72°

VESICLES/AMYGDALES

1423.00-1423.50. Numerous small vesicles filled with quartz and some epidote.

1423.80-1424.11. Amount of vesicles ∿ 6-8% containing soft white amygdales, probably laumontite.

FRACTURES - VEINS - BRECCIA

Almost absent.

f_1 - 1 mm wide fracture filled with calcite.

ROCK ALTERATION

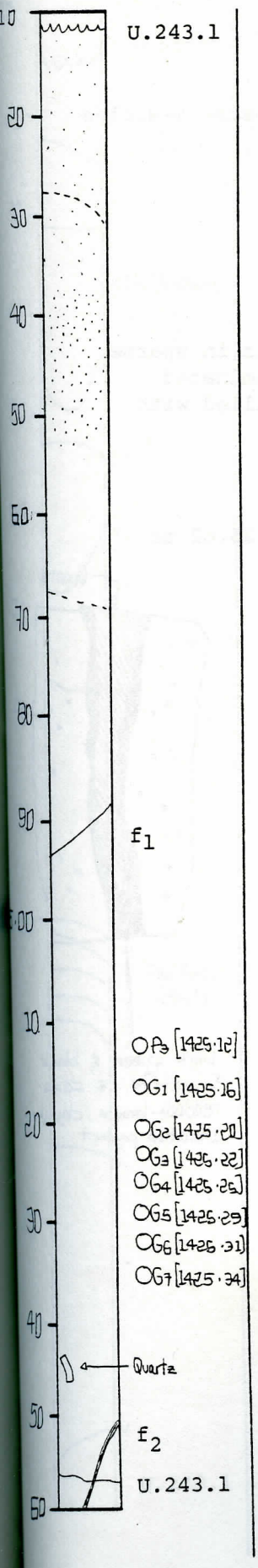
Pervasive alteration of light green smectite and yellowish green epidote.

Visual Core Description Observer J. Helgason

Depth Interval 1424.11 cm to 1425.62 cm

Box 244, Section 3

Graphic Representation | Sample



LITHOLOGY-PETROGRAPHY

Continuint U.243.1

1424.11-1424.38. Fine-grained material, light gray in colour, with numerous small vesicles and small lath-shaped plagioclase phenocryst, mostly < 1 mm in size.

1424.38-1424.50. Highly vesicular, fine-grained, aphyric material.

1424.50-1425.62. This unit grades into massive homogeneous aphyric material.

STRUCTURE

f_1 - core to fractureangle = 60°

f_2 - core to fracture angle = 70-90°

VESICLES/AMYGDALES

1424.11-1424.38. Vesicles of irregular shape, 1-3 mm in size, containing white soft amygdales, probably laumontite.

1424.38-1424.50. Vesicles, mostly 1-3 mm in size, fitted with soft amygdales of epidote and probably laumontite.

1424.50-1424.62. Vesicles are small, 0.1-1 mm in size, but very abundant, mostly of rounded shape. Vesicles contain dark green smectite.

FRACTURES - VEINS - BRECCIA

1428.30 - Irregular fracture containing substantial amount of epidote.

f_1 - 1 mm wide fracture, filling material in fracture = dark pink clay and dark green smectite.

f_2 - 4-5 mm wide fracture, filled with quartz, black and dark green smectite.

Visual Core Description

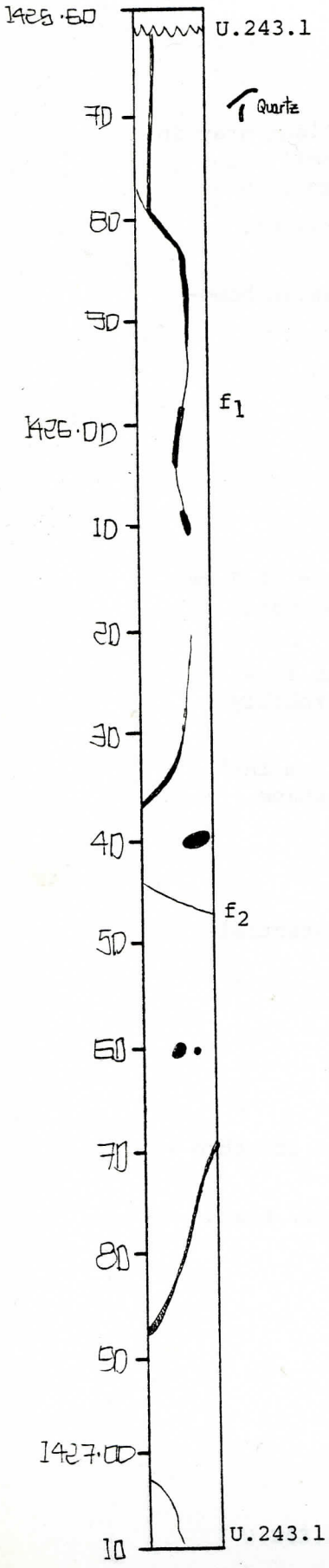
Observer J. Helgason

Depth Interval 1 4 2 5 6 2 cm to 1 4 2 7 1 3 cm

Box 244, Section 4

Graphic Representation

Sample



LITHOLOGY-PETROGRAPHY

Continuing U.243.1

Massive homogeneous aphyric unit with sparse vesicles up to 40 x 5 mm in size.

STRUCTURE

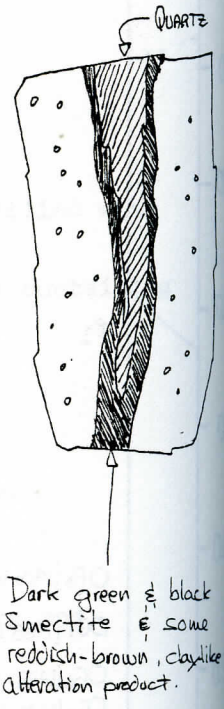
f_2 - core to fracture angle = 10°

VESICLES/AMYGDALES

Amygdales are of two kinds, namely quartz in sparse vesicles up to 40 x 5 mm in size. Disseminated vesicles mostly smaller than 1 mm are filled with green smectite.

FRACTURES - VEINS - BRECCIA

f_1 - This fracture is continuous from 1425.62 to 1426.30 and is up to 6 mm wide.



ROCK ALTERATION

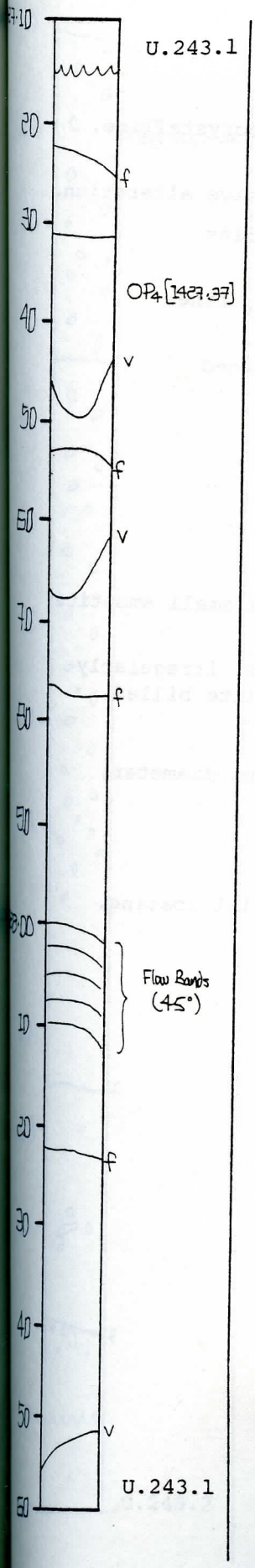
Pervasive green smectite alteration.

Visual Core Description Observer RHW

Depth Interval 1427.15 cm to 1428.61 cm

Box 245, Section 1

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

Continuing U.243.1

Greenish-gray, fine-grained, aphyric, holocrystalline, equigranular basalt.

Texture is rather mottled, but not vesicular. Alteration is extensive.

STRUCTURE

1427.15-1428.00 Massive

1428.00-1428.10 Vague dark flow bands, 1 cm apart.

1428.20-1428.61. Massive

VESICLES/AMYGDALES

None as such. Blotches, up to 3% of smectite throughout, none larger than 1 mm diameter.

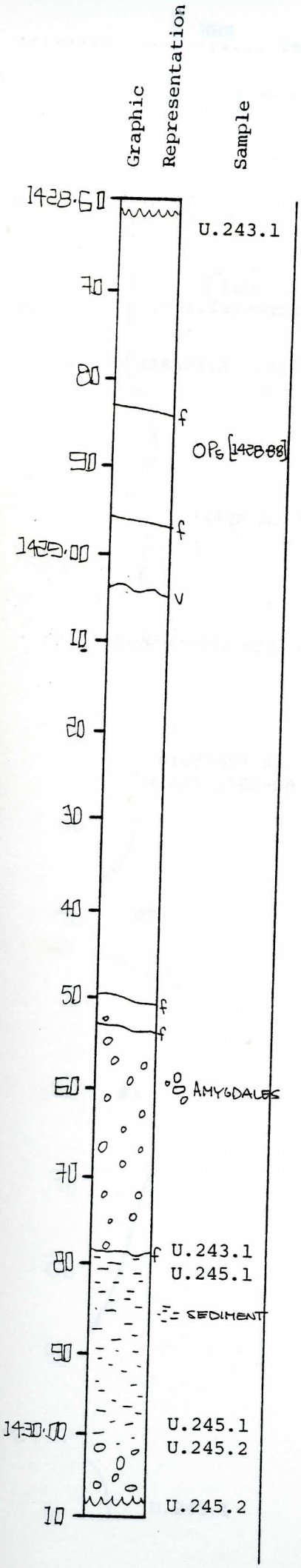
FRACTURES - VEINS - BRECCIA

Fractures 0-30°. Red material in lining of fracture @ 1427.77. Absent in others. Veins at 60-65°, filled with zeolite and smectite.

Visual Core Description Observer RHW

Depth Interval 1428.61 cm to 1430.08 cm

Box 245, Section 2



LITHOLOGY-PETROGRAPHY

Continuing Unit 243.1

Greenish-gray, fine-grained, aphyric, holocrystalline, equigranular, basalt.

Mottled, but not vesicular texture; extensive alteration.

Grades into amygdaloidal zone which overlies sediments.

U.245.1 Sedimentary unit of red, massive, fine-grained siltstone.

1430.00 Sedimentary contact with red stained scoriatious basalt.

STRUCTURE

Massive

VESICLES/AMYGDALES

1428.61-1429.50 Absent, but 2-3% vol. is small smectite blebs, no large than 1 mm diameter.

1429.50-U.245.1 Large, up to 3 cm x 1 cm, irregularly shaped amygdules, smectite lined and zeolite billed.

U.245.1 Absent

U.245.2 Irregular amygdules, 5 mm maximum diameter, zeolite filled.

FRACTURES - VEINS - BRECCIA

Fractures subhorizontal (0-10°), no special coating.

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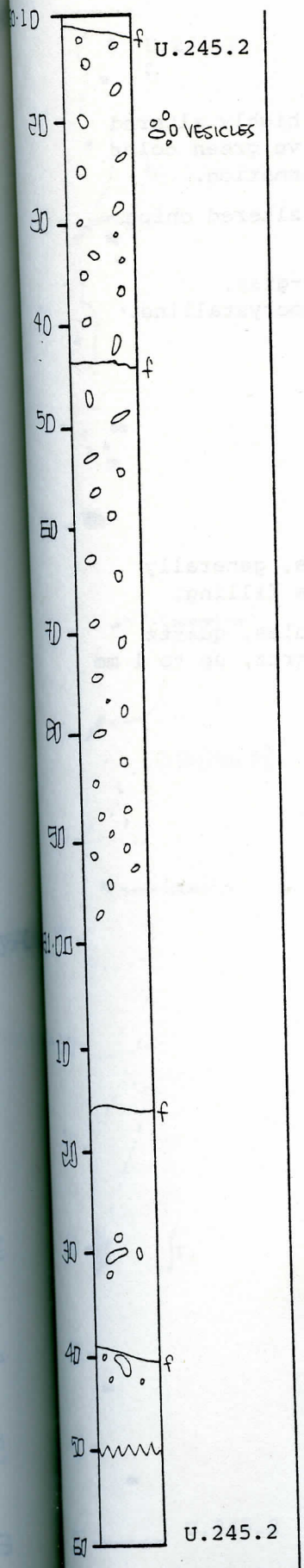
Visual Core Description Observer RHW

Depth Interval 1430.08 cm to 1431.50 cm

Box 245, Section 3

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

Continuing Unit 245.2

Amygdaloidal, fine-grained, holocrystalline, aphyric basalt. Color changes from reddish towards the top to a purple in the middle and greenish-gray at the bottom.

STRUCTURE

Amygdaloidal

VESICLES/AMYGDALES

1430.08-1431.00 Amygdules are large and irregular (1 x 3 cm max.) upper part to 1431.00. Filling consists of epidote and zeolite, some smectite. Very nice euhedral epidotes growing in some vesicles, up to .2 mm long.

1431.00-1431.30. Zone of no vesicles, or perhaps so altered that vesicles have been obliterated.

1431.30-1431.50 More amygdules, somewhat smaller than in upper part of section, still filled with epidote and zeolite, some smectite.

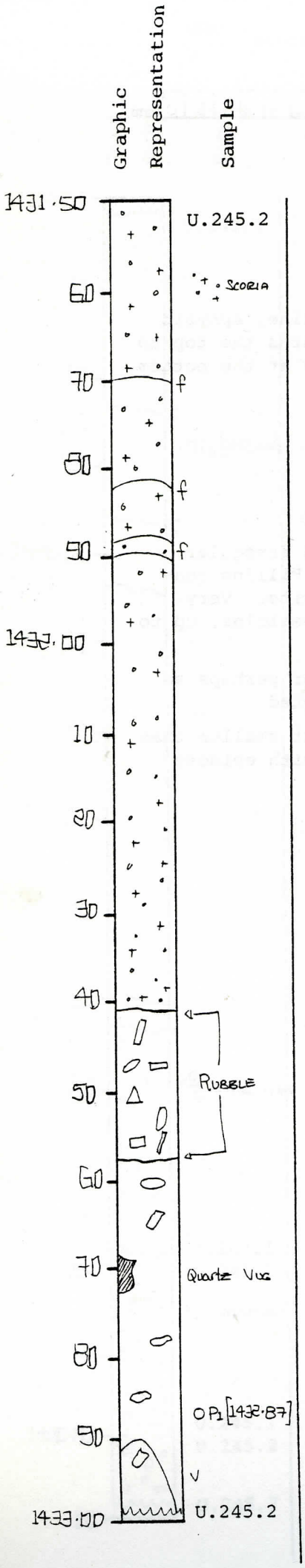
FRACTURES - VEINS - BRECCIA

Fractures @ 0-10°, no special lining.

Visual Core Description Observer RHW

Depth Interval 1431.50 cm to 1432.99 cm

Box 245, Section 4



LITHOLOGY-PETROGRAPHY

Continuing Unit 245.2

Scoraceous olive green, fine grained, highly altered basalt. Probly flow top material. Olive green color probably result of extensive epidote formation.

1432.40-1432.58 Rubble is very highly altered chips of scoria.

1432.60-1432.99 Fine-grained, greenish-gray, amygdaloidal flow basalt. Aphyric, holocrystalline.

STRUCTURE

1431.40-1432.40 Scoriatious

1432.60-1432.99 Amygdaloidal

VESICLES/AMYGDALES

1431.40-1432.40 Vesicles, 20% in places, generally small individually. Epidote and zeolite filling.

1432.60-1432.99 Large, irregular amygdules, quartz and epidote filling. Nice, euhedral quartz, up to 1 mm long.

FRACTURES - VEINS - BRECCIA

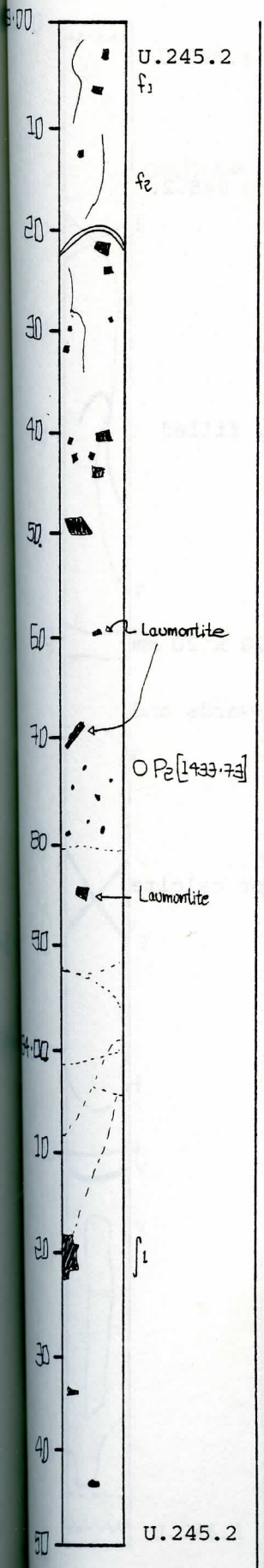
Fractures at 0-10°, no special lining.

Visual Core Description Observer J. Helgason

Depth Interval 1 4 3 2 9 9 cm to 1 4 3 4 5 1 cm

Box 246, Section 1

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

Continuing U.245.2

Amygdaloidal, fine-grained, aphyric basalt.

VESICLES/AMYGDALES

1432.99-1433.40. Size of vesicles is variable from 1-25 mm. Smaller vesicles contain mostly light green smectite. Larger ones predominantly contain quartz and epidote and are either half-filled with well formed crystals of quartz and epidote or filled with massive quartz and epidote. Amount of vesicles ∿ 15%.

1433.40-1434.50. Vesicles contain mostly laumontite, some are rimmed with minor amount of epidote. Quartz and calcite are found in small amounts.

∫1 1434.20. Amygdales in a separate plastic bag, mostly laumontite and some epidote.

FRACTURES - VEINS - BRECCIA

1432.99-1433.40. f_{1-2} 1 mm fractures containing epidote and quartz. Fractures almost vertical, but not uniform as regards width and linearity.

1433-1434.40. Very thin fractures, almost vertical containing calcite.

ROCK ALTERATION

1432.99-1433.50 Pervasive alteration of black and green smectite.

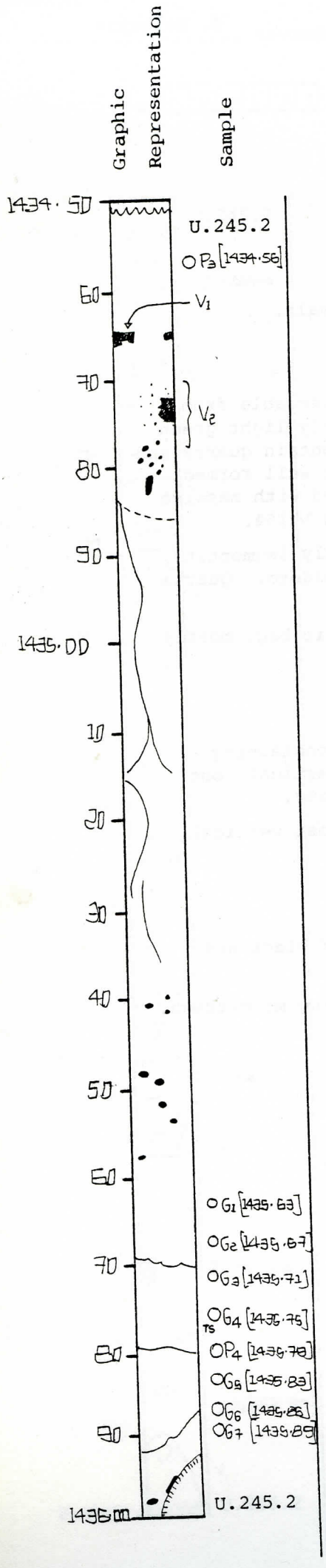
1433.50 -1434.50 Rock alteration appearing more fresh.

Visual Core Description

Observer J. Helgason

Depth Interval 1 4 3 4 5 1 cm to 1 4 3 6 0 1 cm

Box 246, Section 2



LITHOLOGY-PETROGRAPHY

Continuing U.245.2

Amygdaloidal, fine-grained aphyric basalt.

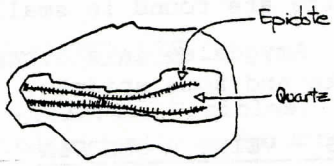
U.246.1 Chilled margin 246.1 intruded into 245.2. Fine-grained, chill zone basalt.

STRUCTURE

Massive

VESICLES/AMYGDALES

1434.65. v_1 - large amygdale, 40 x 20 mm, filled with quartz and some epidote.



v_2. 1434.70 m. Irregular vesicles up to 20 x 20 mm in size, filled with calcite.

1435.10 Number of vesicles decreases downwards and calcite become dominant amygdales.

U.246.1 Absent

FRACTURES - VEINS - BRECCIA

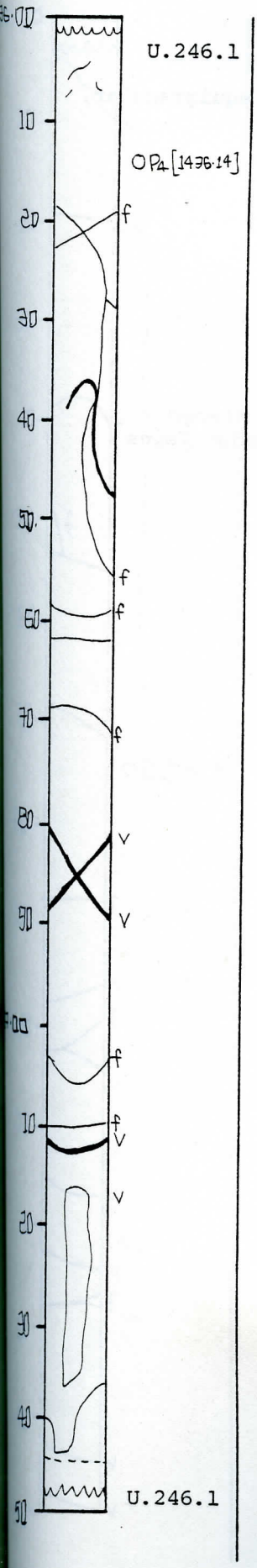
Fractures generally 0-10°, 45°. Coating of calcite and smectite.

Visual Core Description Observer RHW/JH

Depth Interval 1436 01 cm to 1437 48 cm

Box 246, Section 3

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

Slightly greenish, gray, aphyric, holocrystalline, equigranular basalt. Grain size increases from top to bottom, due to chilled contact, bottom of section above.

STRUCTURE

Massive

VESICLES/AMYGDALES

Essentially absent

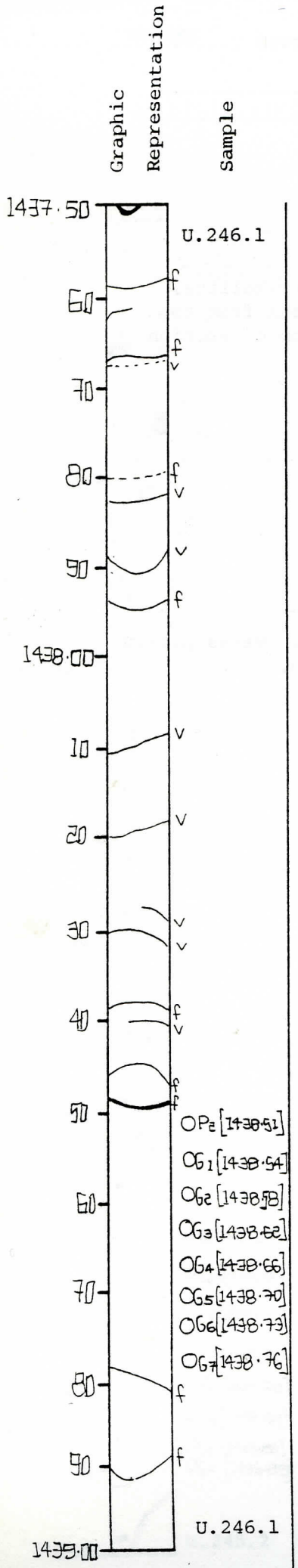
FRACTURES - VEINS - BRECCIA

Fractures at 45° and 60°, calcite lined. Veins pretty much 60-70°, .5 mm thick, calcite filled.

Visual Core Description Observer RHW/JH

Depth Interval 1437.48 cm to 1439.02 cm

Box 246, Section 4



LITHOLOGY-PETROGRAPHY

Fine grained, aphyric, holocrystalline, equigranular, greenish-gray, basalt.

STRUCTURE

Massive

VESICLES/AMYGDALES

Essentially absent

FRACTURES - VEINS - BRECCIA

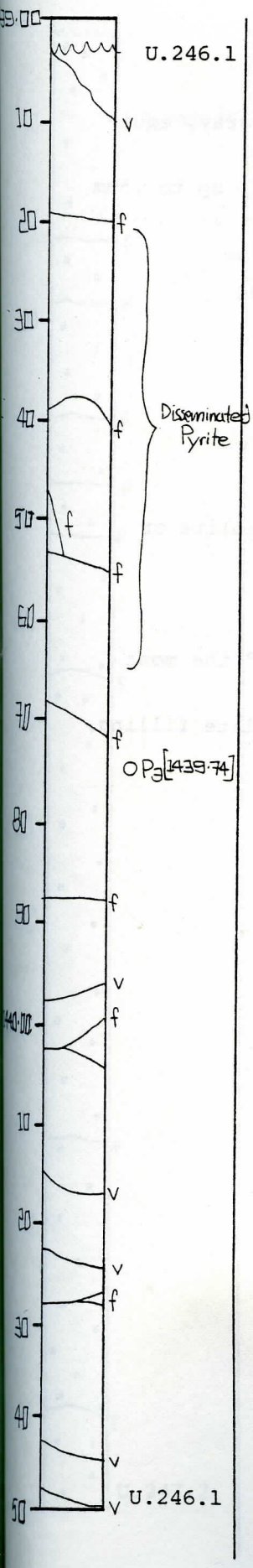
Fractures @ 45° and 0-10°. Calcite lined. Veins pretty much the same.

Visual Core Description Observer RHW

Depth Interval 1 4 3 9 0 3 cm to 1 4 4 0 6 5 cm

Box 247, Section 1

Graphic Representation Sample



LITHOLOGY-PETROGRAPHY

Continuing Unit 246.1

Medium-gray, aphyric, holocrystalline, fine to medium grained, equigranular basalt (intrusive).

Disseminated pyrite, up to 5%, in section from ∿ 1439.20 to 1439.65. In other areas it appears to be absent. Pyrite patches are about .5 m diameter.

STRUCTURE

Massive

VESICLES/AMYGDALES

Absent

FRACTURES - VEINS - BRECCIA

Fractures at several angles, 0-10°, 30°, 60-70°. Coated with minor calcite, some pale green smectite. Veins mostly around 60°, .2 mm thick, calcite filled.