330-U1374A-35R-1-A_SHLF2774621_20110113205903

UNIT 64 CONTD

PIECE 1-3c

TOP: TRANSITION
FROM UNIT ABOVE

0 – 35R 2 128cm

BASALT BRECCIA

FRAGMENTED LAVA
WITH SANDY INTERVALS

OLIVINE: 2%
6mm MAX, 2.5mm MODE
SUBHEDRAL, COMPLETELY
ALTERED

PYROXENE: 0.5%
2mm MAX 0.5mm MODE
SUBHEDRAL, FRESH
OL+PX GLOMEROCRYSTS

▷ MODERATELY OLIVINE-
PHYRIC BASALT BRECCIA

MOTTLED GRAY-WHITE-
ORANGE

FINE-GRAINED, 0.1mm

VOLCANIC ATTRIBUTES:
70% CLAST/MATRIX
5mm MODE
MODERATE
SUBANGULAR
POORLY SORTED
WITH SANDY MATRIX

VESICLES
0 – 35R 2 128cm
1%
HIGH ROUNDED
3mm, 0.5mm

72.5cm vein
max 9mm

VESICULAR
CLAST
5%.

VESICULAR
CLAST
20%.

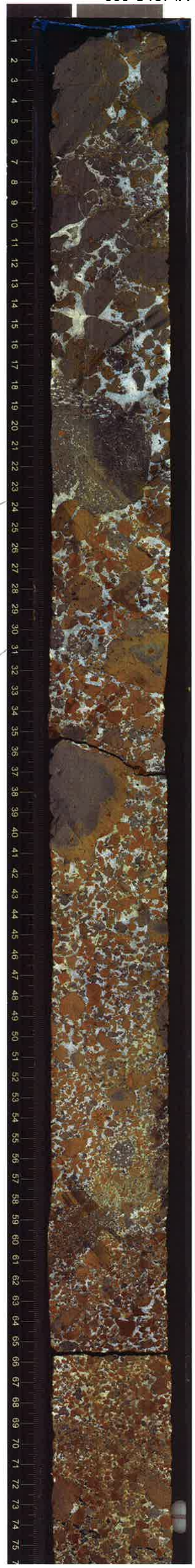
VESICULAR
CLAST 10%

VESICULAR
CLAST 10%.

330-U1374A-35R-2-A_SHLF2774651_20110113210552

UNIT (64)
CONTD.

PIECE 1a - 4a



VESICULAR CLAST
10%

VESICULAR
CLAST 5%

128

VESICLES
128 - 35 R2 104 cm
0.5%
MODERATE
SUBROUNDED
1mm, 0.5mm

134-135
vein
1.5mm

rotated piece?

141-143cm
vein
1mm

144.5-
148cm
vein
branching
1.5mm

128cm ALTERED GLASSY MARGIN

UNIT (65)
PIECE 4a - 6

128cm - 35 R 3 109cm

LOWER BOUNDARY:
NOT RECOVERED

LAVA LOBE OR FRAGMENT

2% OLIVINE
SUBHEDRAL, MODERATELY ALTERED
7mm, 2mm
1% PYROXENE
SUBHEDRAL, FRESH
3mm, 1mm
▷ MODERATELY OLIVINE-PYROXENE-PHYRIC BASALT
DARK GRAY
APHANITIC

ISC1=1

UNIT (65) CONTD

PIECE 1a – 11

330-U1374A-35R-3-A_SHLF2774681_20110113211039

1-4cm vein 1mm curved 70→130°

3-10cm vein network 0.5mm irregular

23-27cm vein 1-2mm curved, steep dip

29-32cm vein n=2 2mm parallel

32-35cm vein n=2 parallel 0.5-2mm

35.5cm conjugate vein 0.5mm straight

36-39cm vein 1mm straight

104

VESICLES
104cm –
35 R4 94cm
0.5%
LOW,
ROUNDED
1mm, 0.5mm

39.5-46cm vein 1mm 64→294°

43.5-45cm vein 0.5mm 50→010°

49cm vein 1mm 68→014°

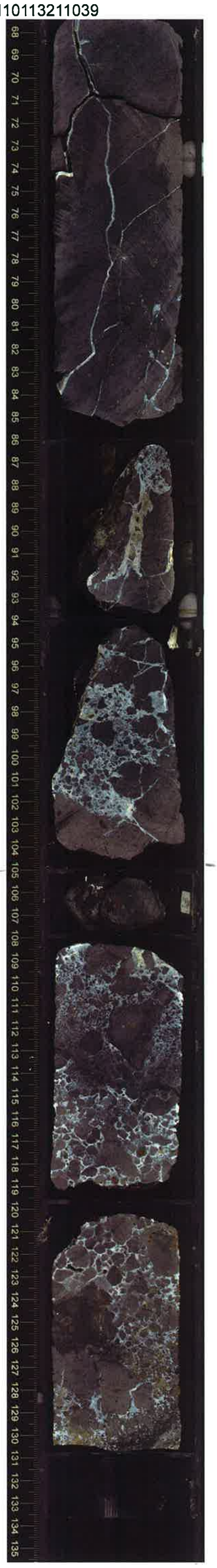
49-56cm vein network n=3 1mm step →270°

56-59cm vein 0.5mm 75→220°

61-66cm Vein network n=5 0.5mm step dip, branched

← piece possibly planed (curved with no way up)

66cm vein 1mm step



67-85cm vein 2mm max, 1mm avg branch + recombine

114-115cm ?bedding? 68→190°

104cm NOT RECOVERED

UNIT (66)

PIECE 12 – 14
TOP: NOT RECOVERED
BASALT BRECCIA
FRAGMENTED LAVA WITH SANDY INTERVALS

2% OLIVINE
SUBHEDRAL, MODERATELY ALTERED
6mm MAX, 1mm MODE

MODERATELY OLIVINE-PHYRIC BASALT BRECCIA
MOTTLED GRAY-WHITE-BRONZE
FINE-GRAINED
0.1mm
75% CLAST/MATRIX
LOW, SUBANGULAR
5mm MODE

UNIT 66

PIECE 1a-8

330-U1374A-35R-4-A_SHLF2774711_20110113211426

61-64cm vein 0.2mm
70→210°

77-79.5cm vein 0.5mm
step

80cm vein 1mm shatter

93cm

330-U1374A-36R-1-A_SHLF2775681_20110114024654

UNIT 67

Moderately olivine-plagioclase (-augite)-phyric basalt

olivine 2%
5 mm max.
2 mm modal
fresh (altered at base of unit)
subhedral.

plagioclase 1%
4 mm max.
1 mm modal
fresh (sieve texture)
elongate

augite 0.5%
2 mm max.
1 mm modal
euhedral

4-8cm vein x3
0.1mm
rotated piece

14.5-19cm conjugate vein 0.1mm 30→050

18-23cm vein 0.5mm 80→304

dark gray aphanitic

21-24cm conjugate vein 0.1mm 50→130°

20-26cm vein stepped 1mm 90→230

lava lobe

6.5mm max

25-29cm vein network n=6 0.2mm steep branching

15C1 (2)

No vesicles

38-41cm vein n=2 1mm 75→148°

39.5-44.5cm conjugate vein .1mm n=1 curved steep→245°

123 cm

51-55 conjugate vein n=5 0.5mm steep dip

52.5-56cm vein 2mm 55→210 stepped

58-67cm vein 0.1mm 80→058

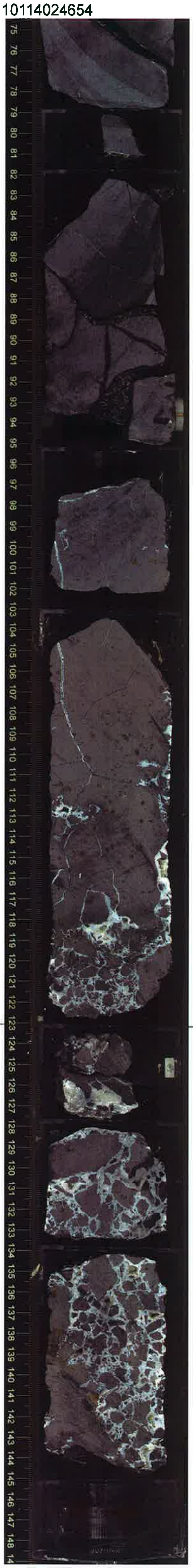
68.5-69cm conjugate vein 0.1mm 85→220°

69-71cm vein 0.1mm 40→138°

69.5-73cm conjugate vein 30→312 0.3mm

73-77cm vein 0.5mm 90→040

piece upside down re-scanned + changes in dash logic →



82cm vein 0.2mm straight

82-85.5cm vein 0.2mm 85→320°

82-94cm magmatic foliation 90→210°

82-87cm vein 0.2mm 85→088°

87-91cm vein network n=6
0.1mm branched

89-91 cm vein 0.5mm 40→032

96-97cm vein 1mm straight
steep dip
piece possibly rotated

100-102 vein 1mm straight steep

104.5-111cm vein 1mm 72→245°

111-119cm vein network n=11
0.5-1mm branch + recombine

UNIT 68

Volcanic breccia

Moderately olivine-plag (-augite)-phyric basalt.

description same as for Unit 67

330-U1374A-36R-2-A_SHLF2775711_20110114025349

Unit 68 (continued)

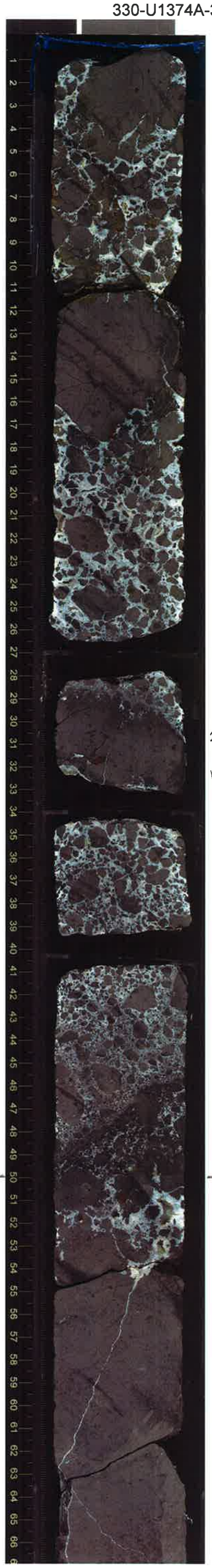
clasts

15 mm modal

low sphericity angular

mottled dark grey - white orange-white in places.

No vesicles



79 cm

Unit (70)

29.5-33cm vein straight step 0.5mm possibly rotated

50 cm

Unit (69)

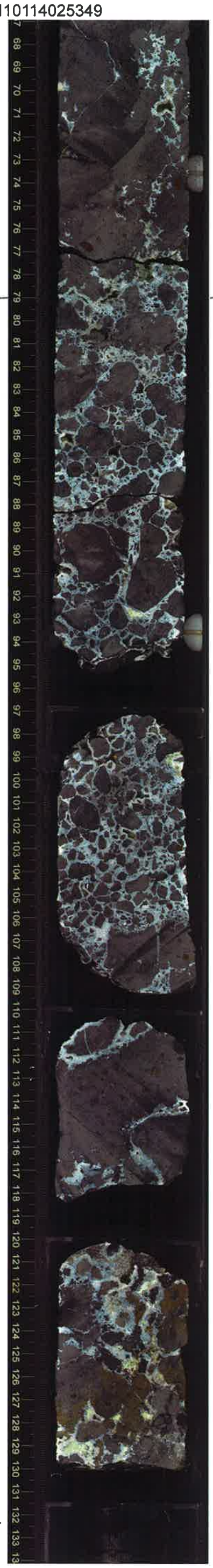
54-63cm vein straight 80→124° 1mm

1SC1(0)

61.5-63.5cm vein straight 80→330° 0.2

63-66cm vein 0.4mm curved 20→218°

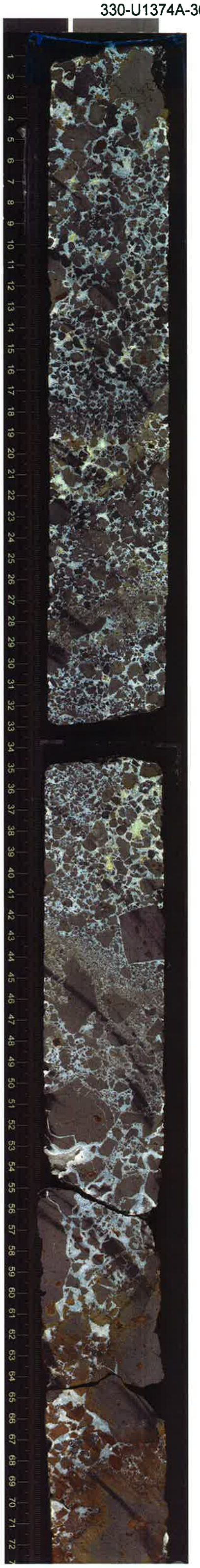
63-69cm vein 0.5mm 75-095 curved



112-115cm vein 0.1mm 80→294°

330-U1374A-36R-3-A_SHLF2775741_20110114025913

Unit 70
(Continued)



330-U1374A-36R-4-A_SHLF2775771_20110114030543

Unit 70 (continued)

68-71cm vein n=3 1-2mm
step

73-81 cm
vein 3mm
branched
70->258°

80-83cm
vein
2mm
60->085°

Unit 71

Moderately
ol-plag(-aug)
-phyric basalt

Same as
Unit 69

87-90.5cm fracture 85->062°

89-90.5cm fracture 75->142°

90.5cm fracture 85->185°

No vesicles

90.5-92cm fracture 70->220

91-97cm vein 0.5mm curved
60->275°

96-97cm conjugate vein 70->320
straighter 0.1mm

97.5-101.5cm conjugate vein 85->145°
0.1mm

ISC1 (2)

100-114cm vein 3-4mm 60->158°

106-107cm conjugate vein 2mm 50->158°

107-109cm conjugate vein 0.2mm 35->312°

111-113.5cm 0.5mm conjugate vein
40->334°

115-117cm vein 0.1mm straight

118-126 cm vein 0.1-0.2mm 60-240°

119.5cm vein 0.2mm 60->350°

118-133cm magmatic foliation
90->340°

125-127cm conjugate vein 0.2mm 85->320°

126.5-128cm vein 0.2mm 60->210°

125-130cm vein 1.5mm curved steep dip

65cm

UNIT (71)

330-U1374A-36R-5-A_SHLF2775801_20110114031055

12.5-15.5cm conjugate vein 90→040 0.2mm

14-17cm vein 1mm 80→154°

18-19.5cm vein n=2 1mm 50→140°

22-25.5cm vein 1mm curved 85→055°

26-28cm vein 1mm straight 80→154
26-27.5cm vein 0.5mm " 80→036

31-37cm vein 1mm curved 90→235°

36-42cm conjugate vein stepped 6.5mm 60→330

40-42cm conjugate vein 0.5mm curved 60→150°

42-44cm vein 1mm 70→030°

44-52cm vein network 0.2mm anastomosing steep dip n=10

42-50cm magnetic foliation 90→160°

UNI (72)

fragmented lobe top

Sparsely olivine-phyric basalt

olivine

1% 12 mm max (more massive)
2 mm modal

subhedral altered

0.1% augite
5mm max
5mm modal

autobrecciated flow lobe

ISCI 0

clasts 100% volcanic
15 mm modal
low sphericity
angular

No vesicles

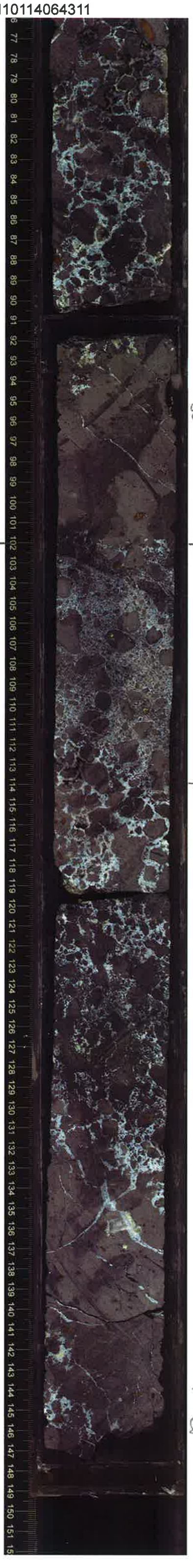
aphanitic

Mottled
dark gray-white
mottled
yellow-brown
at top.

32.5-33cm vein 0.2mm straight
35->174°

33.5-36cm vein 0.1mm straight
80->230°

36-38cm vein 0.2mm straight
60->150°



92-97] vein clipped 41->228
92-96] 89->076
94-99] 55->204°

102 cm

UNIT (73)

sandy interval at top of flow lobe

114

Sparsely ol-phyric basalt.

v. similar to (72)

1% olivine
8 mm max
2 mm modal
Subhedral altered.

130-136
vein, clipped, steep dip 232

133-136 vein network (irreg.) non-oriented

139-140 vein, curved, steep dip

140-146
vein network, straight steep dip

330-U1374A-37R-2-A_SHLF2777311_20110114064740

Unit 73 (Continued)

No vesicles

1-2 vein network, straight, non-oriented

8-8 vein, irregular, sub-horizontal

76-76 vein, irregular, non-oriented

41-42 fracture, straight 80 → 015

48-53 vein network straight, non-oriented

20 cm massive interval

ISC1 1

base of brecciated lobe

84 cm

UNIT 74

sandy interval

mottled orange-white aphanitic clasts

115

brecciated top of lava lobe

330-U1374A-37R-3-A_SHLF2777341_20110114065111

UNIT (74)
(Continued)

1.6 meter Massive part of flow lobe to end of core autobrecciated in lower 96 cm
1SC1 (2)

Sparsely ol-phyric basalt

1% olivine

10 mm max, 2 mm modal mostly altered fresh in interval 29-49 cm.

no vesicles

dark gray

mottled orange - brown at top and bottom.

8-15 vein network irreg.) non-oriented

10-13 vein, branched, 80 -> 210

18-19 fracture, 34 -> 340

17-19 vein, straight 72 -> 250

18-26 fracture, straight 89 -> 078

29-37 vein network, n=6, irregular, steep dip

34-37 fracture, straight 89 -> 030

37.5-37.5 vein, straight 56 -> 002

42-52 vein, straight 82 -> 118

46-54 vein network irreg.) step dip

45-45 fracture, straight 44 -> 010

49-50 fracture straight 85 -> 190

60-69 vein network, n=20, irreg.) non-oriented

70-72 vein network, irregular, non-oriented

73-78 vein network irregular, non-orig

330-U1374A-37R-4-A_SHLF2777371_20110114065735

Unit 74
(Continued)

No vesicles

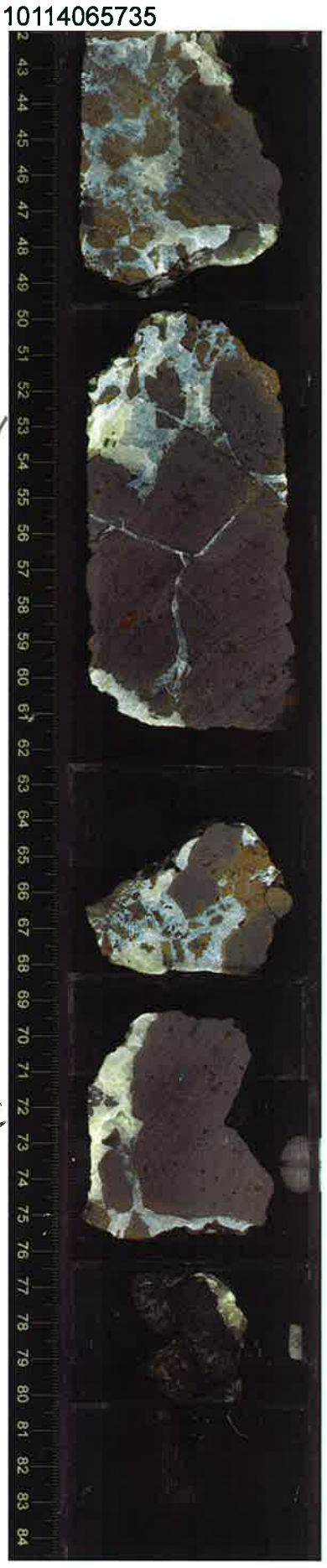
dark gray

orange in places

1-6 vein network, irregular, non-oriented

8-10 vein network, straight, non-oriented

28-38
vein network, straight
non-oriented



54-60
vein network, conjugate
clear dips
111/193

Unit 74
brecciated base

UNIT (75)

VOLCANIC BRECCIA

Moderately olivine-phyric basalt

2% olivine (no aug. or plag.)

7 mm max.
2 mm modal
altered
subhedral

clasts

Low sphericity angular.
15 mm modal

colour

mottled orange-gray-white
aphanitic

vesicles

10% elongate angular.
3 mm max
1 mm modal
20/cm²
99% filled

42 cm

UNIT (76)

Moderately ol-phyric basalt
2% olivine (no plag. or aug.)
3 mm max
2 mm modal
partly altered
euhedral
lava fragment
ISC1 0

no vesicles
massive
dark gray

moderately altered

highly altered

43-46
vein network, irreg. non-orientd

46-47 steep dip → 216
47-57 steep dip → 280
50-52 steep dip → 209
46-53 steep dip → 280
50-54 29 → 035

conjugate vein netw.

moderately altered

80 cm

UNIT (77)

VOLCANIC BRECCIA

Moderately olivine-phyric basalt.

2% olivine (no aug. or plag.)

8 mm max
2 mm modal
altered subhedral

clasts

Low sphericity angular
20 mm modal

colour

mottled orange-dark gray-white

vesicles

none in most clasts in section 1 (but see section 2)

330-U1374A-38R-2-A_SHLF2778701_20110114093552

U-8 vein subvert, irreg., non-oriented

highly altered

28-30 vein sigmoidal branched, non-oriented

vesicles

V

some clasts vesicular

20%

elongate, angular

2 mm max

0.5 mm modal

50/cm²

95% filled