

00111
 小
 大
 出 □
 三
 六
 火山
 1 2 3 4 5 6
 - 二 三 四 五 六
 7 8 9 10
 七 八 九 十

330-U1374A-14R-1-A_SHLF2750141_20110109141427

TYPE 1
 42.5-46cm



TS#138

TYPE 4
 0-9cm
 Highly altered
 ch = iddipack

TYPE 7 15-36cm
 HIGHLY OLIVINE-PHYRIC BASALT
 30% OLIVINE COMPLETELY ALTERED Euhedral 8mm, 4mm
 1% PYROXENE FRESH, Euhedral 5mm, 3mm
 VESICULARITY 10%, HIGH, ROUNDED
 MOTTLED ORANGE-GRAY FINE GRAINED
 highly altered

36
 40-41
 Geopetal → 156°

TYPE 3
 36-44cm

44

TYPE 1 42.5-46cm



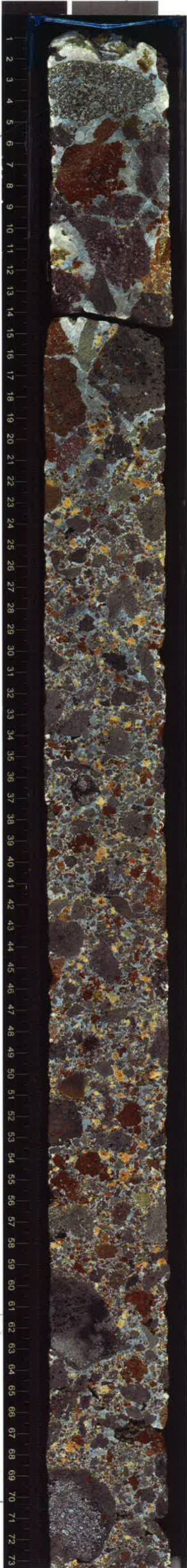
TS#139

54-78cm
 TYPE 4
 10% VESICULARITY

highly altered

TYPE 6
 PUMICE-LIKE FOAM THROUGHOUT SECTION

TYPE 5
15-5



15-18
aligned vesicles in
clast

TYPE 4
13-17cm
02-96
very fine
non-oriented

TYPE 5
57-64

TYPE 5
68-73



TYPE 8
86.5-98cm
▷ SPARSELY OLIVINE-
PHYRIC BASKET
• OLIVINE 1%
SUBMEDIAL, ALTERED
4mm, 15mm
FINE-GRAINED, FELDSPAR
LATHS

1% VESICLES
HIGH, ROUNDED
MEDIUM GRAY

TYPE 7
96-104cm
VESICULARITY 5%

TYPE 8
137-142cm

TYPE 6 PUMICE/FROTH
THROUGHOUT SECTION

TYPE 9
4-11cm
DAPHNIC BASALT
0.5%
ELONGATE,
ROUNDED

TYPE 10
11.5-40.5cm
3% OLIVINE
ALTERED
SUBHEDRAL
6mm, 2mm
0.5% PYROXENE
FRESH
5mm, 3mm
FINE-GRAINED
3% VESICLES
ELONGATE, ROUNDED
highly altered

TYPE 8
60-129cm
highly altered
116-125"
vesicle band
41 → 323

TYPE 5
51-60

15#40
51

20-20
fracture

TYPE 8
137-145cm
highly altered

TYPE 6 IN MATRIX



330-U1374A-14R-4-A_SHLF2750231_20110109150912

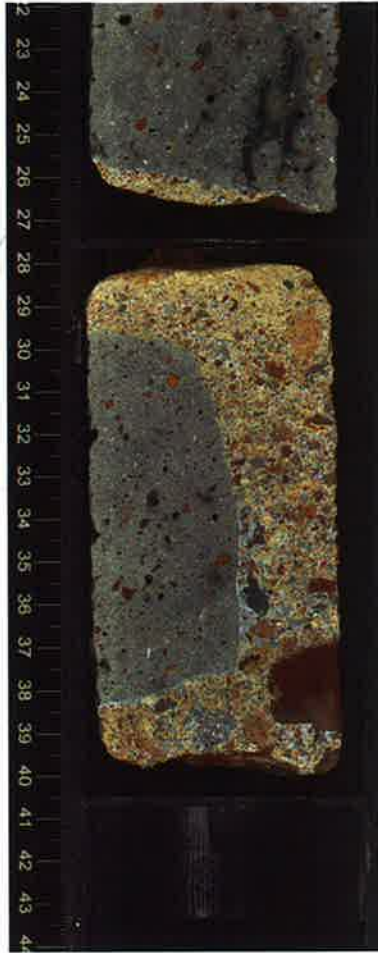


TYPE 4
0-9cm

TYPE 4
10-14.5cm

TYPE 4
15-27cm

*100%
hydrolysis
matrix*



TYPE 4
30-38.5cm

TYPE 6 CLAST IN MATRIX

SEDIMENTARY UNIT IX

330-U1374A-15R-1-A_SHLF2751091_20110109181823

TYPE 6
FOUND THROUGHOUT

3-4
vein with
in clast

9-12 vein
sub-horiz →
100°

2.5-5
TYPE 10 ✓

5-29
Type 10 ✓

highly
altered
81-89
vein with
irregular
crystals

22-25
26-29
28.5-29.5 } vein, in brown
steeply dip →
080/088/080

31-32
Type 10 ✓

34-58
Type 10 ✓

34-40
vesicle band
→ 152

41-42
magmatic
foliation
80 → 163

74-79
TYPE 7 ✓
highly
altered

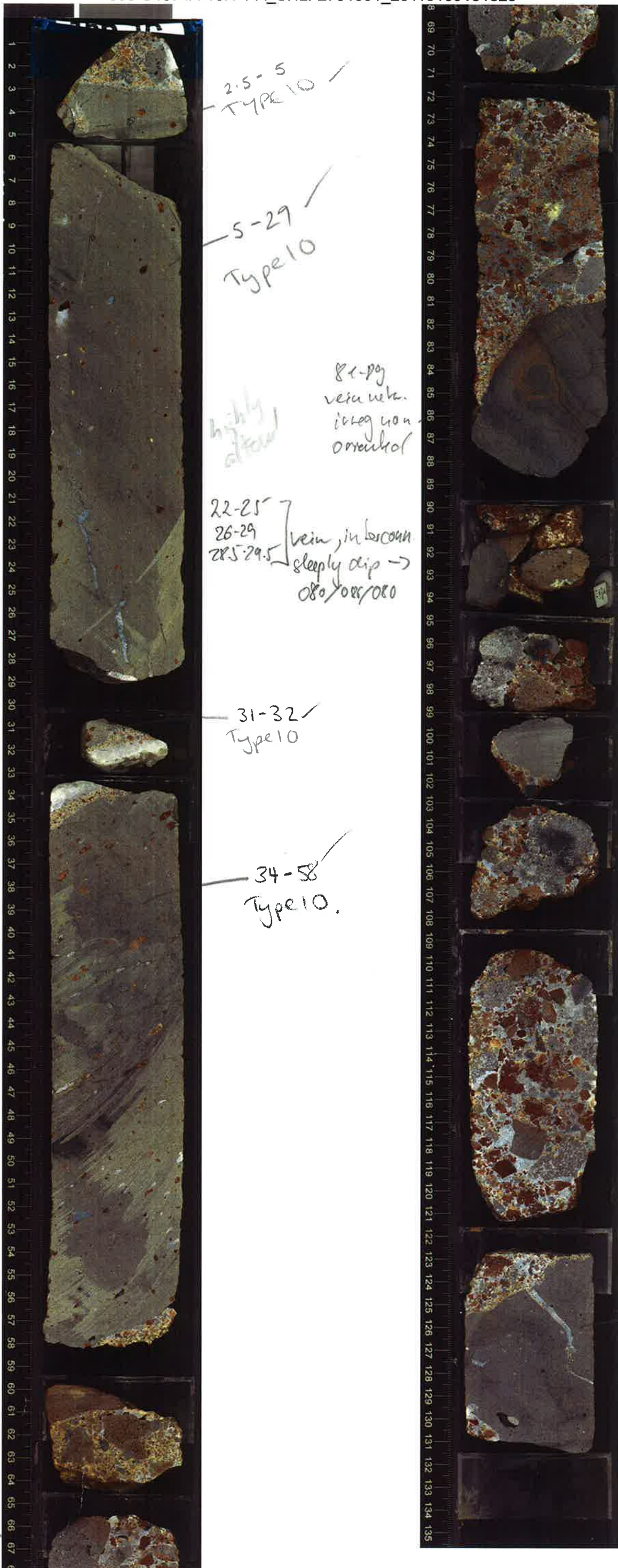
81-89
Type 9 ✓
highly
altered

99-102
Type 3 ✓

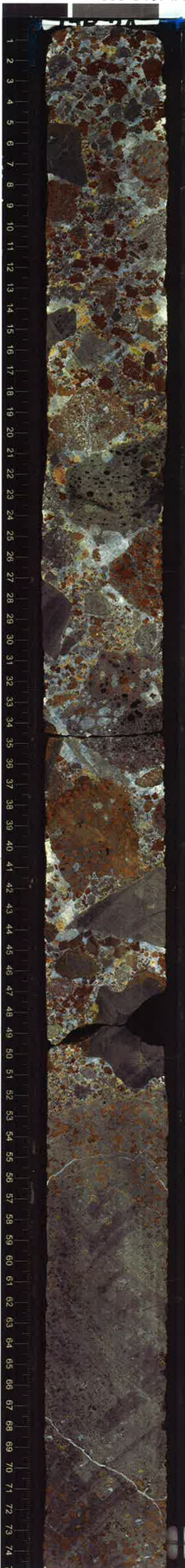
123-131
Type 5 ✓
highly
altered

TYPE 5 ✓
66-71

highly
altered



UNIT IX



36.5-42cm
TYPE 7

LAST TYPE 6

75-78
vein
mag. dip
up

qu-100
vein netw
non-
oriented
TYPE 5
20-25cm
highly
altered

TYPE 7
24-29cm

TYPE 9
30-36cm
highly
altered

TYPE 9
41-45cm

TYPE 9
46-51.5cm
highly
altered
54-57
vein network,
non-oriented,
shaly
interbedded
altered

TYPE 2
52-78cm
fairly
fresh
altered

67-76
vein netw
non-oriented
highly
altered

CAUTION
Toxic

M810

TYPE 5
85.5-87cm
highly altered

TYPE 2
90-92cm

TYPE 9
93-100.5cm
moderately
altered

TYPE 9
102-107cm
102-106
vein network
non-oriented

TYPE 5
127-132cm

highly
altered

TYPE 1
136-144cm

TYPE 6 UNTIL 48cm

1-11
Type 10

19-23
Type 3

40-50
Type 9

52-62
Type 9

64-66
Type 9

Type 9
65-70

80-85
vein netw,
non-orient
in clst

Type 9
15-23

60-65 weak
magmatic
foliation
40-45
vein network
steep dip (clst)

52-62
vein netw.
steep dip (clst)

Type 7
79-85

Type 5
91-95

Type 8
96-99

Type 9
117-120

126-133
Type 9

72cm vein 0.5mm n=1 straight
 72.5-88.5cm magmatic foliation 90→184°
 veins n=3 (weathered foliation)
 74-76cm 85→170°



End of Unit IX

fragment of ol-phyric basalt

UNIT X
 FRACTURED LOBE TOP

17.5cm geopetal 180°

7-29.5cm fractured (+ filled by sediment)

38.5-57cm vein 1mm 75→106°

41-41.5cm conjugate vein 60→350°

conjugate 45-46cm vein 1mm 30→200°

54-55.5cm conjugate vein 0.5mm 30→126°

57-61cm vein 1mm 85→244°

58.5-61.5cm vein n=1 straight 80→025°

39-71cm magmatic foliation 10→179°

71cm vein 0.5mm n=1 70→194° } same vein as @72cm



88-88.5cm vein 1mm n=1 straight 80→172° ← same vein

90cm vein 1mm n=1 straight 85→170°

90-100.5cm magmatic foliation 90→190°

96-98cm vein n=2 0.1mm straight 80→194°

101-102cm vein 4mm 85→015

101-114.5cm magmatic foliation 85→010

107-110cm vein 1mm straight 80→012

115-121cm magmatic foliation

116-121cm vein network n=3 max 4mm avg 2mm ← piece possibly rotated

← same vein?

122-127cm vein n=1 2mm straight 85→124°

122-131cm magmatic foliation sub-vertical →190°

127-131 conjugate vein 0.5mm n=1 straight 60→242°

132-139.5cm straight vein 5mm 85→290

135-136cm vein 6mm straight conjugate 60→160°

134-141cm vein network n=7 0.5mm wide steep dip

Unit 9
 Aphyric basalt

dark gray

No phenocrysts
 fine-grained groundmass

0.05% vesicles

0.8mm max
 0.5mm modal

0.1/cm²
 high sphericity rounded

in-situ flow like

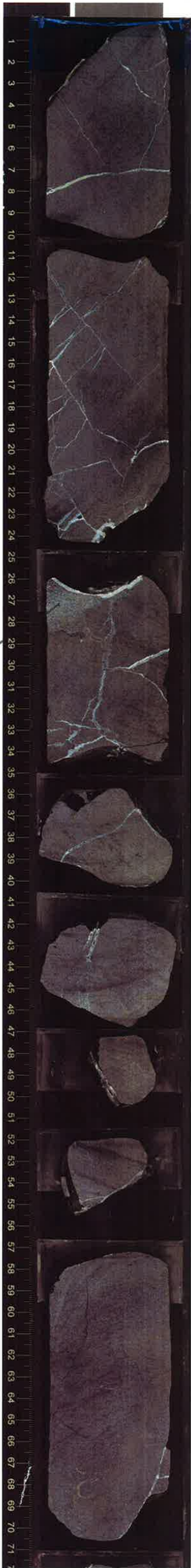
(SCI 3)

TS#14

Unit (9)
(continued)

description as
for section 1

Sand-filled
fracture



0-4 cm vein
straight 2mm 45-7315

1-7.5 cm
vein network n=5
0.5mm

7-8cm vein 2mm
curved, steep dip

11.5-24 cm
vein network
n = ~15
max 3mm
avg 1mm

26-34.5 cm
vein network
n=9
max 3mm
avg 2mm

28-34 cm
magmatic foliation
steep → 190°

37-39 cm
vein n=2
2mm wide ← rotated

41.5-47 cm
magmatic foliation

42-46 cm
vein 5mm
straight

57.5-58 cm vein 0.1mm
most removed during drilling

57.5-70.5 cm
magmatic foliation
80 → 170°

66-70 cm
vein 1mm
80 → 120°



72-74 cm vein mm 80-7120°

75-76 cm vein 0.5mm
curved, sub-vertical

72-87.5 cm magmatic foliation
sub-vertical → 70°

80.5-85 cm vein 0.5mm 65-7212

81.5-87.5 cm vein 1mm 15 → 275

86.5-87.5 cm vein 1mm 75 → 320°

89-90.5 cm vein 1mm 40-220°

89-99.5 cm magmatic foliation
85 → 190°

94-99 cm vein 70-110°
1mm

101-110 cm vein 1.5mm 70-115°

101-116 cm magmatic foliation
steep → 210°

106-109 cm fracture 70-7210°

111.5-116 cm conjugate fracture
45 → 302°

116.5-120 cm vein branched
max 2mm avg 1mm

Brecciated
base of flow
lobe

132 cm geopetal 181°

— sand-filled
fracture

UNIT (10)

Basaltic breccia

probably fragmented pillows or flow lobes.

Sandy matrix (basalt sand)

Carbonate cement

Aphyric basalt

dark gray aphanitic

no phenocrysts

vesicles

0.05%

mod. spherulitic subrounded

max 1mm modal 0.5mm 0.1/cm²

breccia clasts

max 130mm modal 15mm poorly sorted low sphericity very angular.



IS #142

17cm geopektal 180°

21cm geopektal 180°

MBIO

SHL # SL

64-68cm vein 3mm

68-68.5cm > in clast vein 1mm (rotated)



98.5cm geopektal 180°

121-123cm vein 0.1mm branchy sharp dip
basaltic sand.

127-134cm ^{conjugate} vein 1mm 90-300°

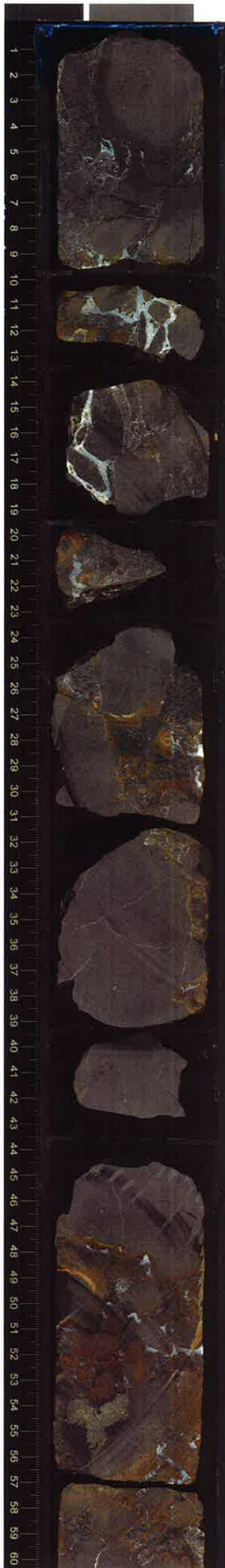
Large clast in breccia

133-137cm vein 3mm 90-220°

Unit 10
(continued)

Basaltic
breccia

Similar to
Section -1



33 - 37.5cm
0.1mm vein network
n=3



Unit (10)
(Continued)

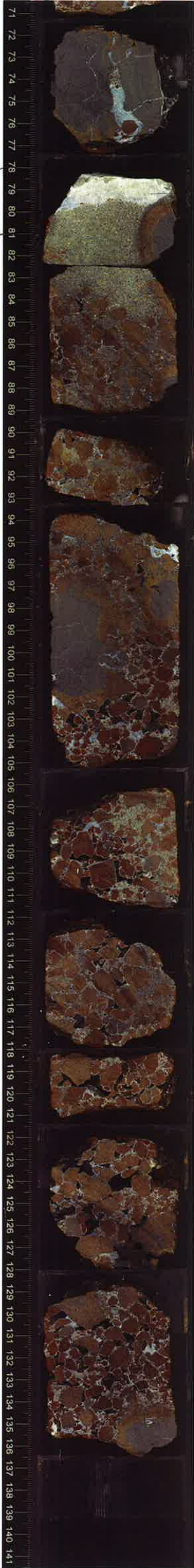
basaltic
breccia

Similar to
section - 1



small pillow?
radial fractures
hollow, sand-
filled centre.

33-
34 cm geopetal 180°



15 (red) 1144



Unit ⑩

(continued)

basaltic breccia
cemented with calcite

aphyric basalt

dark gray

aphanitic

No phenocrysts

Clast size

150 mm max.

15 mm nodal

very angular

poorly sorted

Vesicles

0.01%

0.5 mm max

0.2 mm nodal

0.01% cm²

high sphericity
rounded.



highly
altered
Orange

dark gray

31-39cm
vein network (in clast)
3mm max, avg 1mm
n=5 sharp tip

slightly
altered

Carbonate

56-62cm
vein network (in clast)
n=8
max 1mm
avg 0.5mm
irregular



Calcite

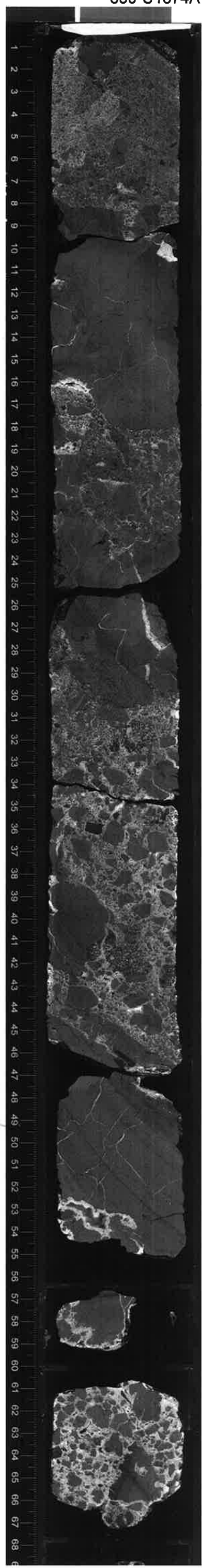
103cm geopetal 180°

106.5cm geopetal 180°

Calcite

UNIT (10)
(Continued)

basaltic
breccia
(aphytic)
No phenocrysts
dark gray
aphanitic
fresh glass in
groundmass.



11-16cm
vein network (in clast)
n=6
0.1mm
irreg

slightly
etched
dark gray
Abundant
fresh glass

caliche

47-53cm (in clast)
vein network
n=8
0.5mm
irregular

caliche



70-75cm vein network (in clast)
0.5mm n=5 irregular

end of Unit (10)

Unit (11)

Aphytic basalt
flow lobe.
dark gray
aphanitic
no phenocrysts
no vesicles

ISCI 2

106.5-109cm vein 3mm straight
70-320

107-110cm conjugate vein max 2mm
branch recombine avg 1mm

110-120cm vein 1mm straight
50-720

113-118cm vein n=2
0.3mm 80-330

117-119cm conjugate vein 0.1mm
shear 330

119-122cm vein 0.1mm 80-350

109-125cm magmatic foliation
80-340

127-128cm vein 2mm

131cm vein 0.5mm irregular
n=3



2-16.5cm
vein 1.5mm
90 → 275°

calcite +
Fe-oxides

14-17cm
vein 1mm
20 → 045°

19-21.5cm
vein 1mm
irregular

27.5-34cm
vein 2mm
80 → 050°

calcite + Fe-oxides

29-34cm fracture
straight 70 → 220°

38.5-43.5cm
vein 3mm
network

calcite +
Fe-oxides

Slightly
attitudinal

54-63cm
magmatic foliation
85 → 175°

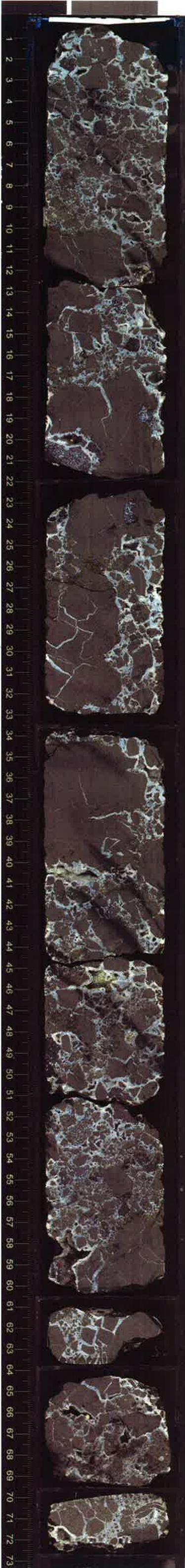
55-60cm vein 0.5mm
85 → 230°

UNIT (12)

SL
94/11/11



Basaltic breccia
aphyric basalt
aphyric
aphanitic
no phenocrysts
no vesicles to
section 5, 5cm.



caliche

Slightly altered

27-32cm
vein network (in clast)
n=5 irregular
2mm



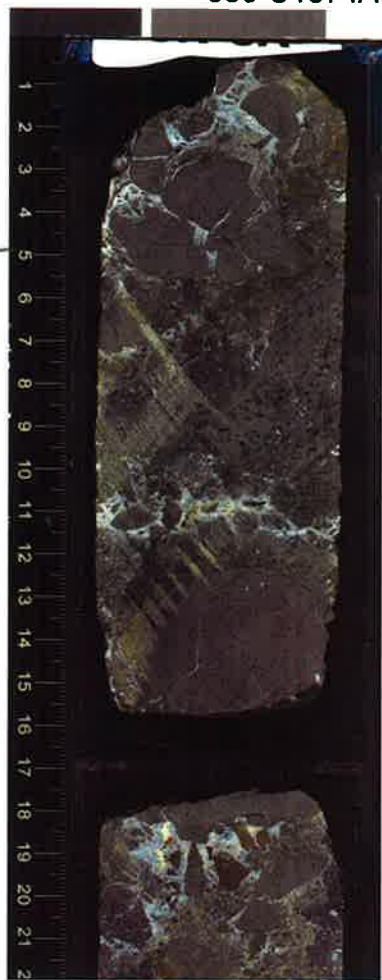
80-82
vein network in clast
n=4, 0.7mm, irregular

↓
moderately altered

131-135cm
vein, irregular
2mm
caliche

330-U1374A-18R-5-A_SHLF2754701_20110110074103

Vesicular
patch
from
18R-5, 5 cm
to -5,33cm



moderately
altered
Some margins
more highly
altered.



33-40 cm
as for section 4