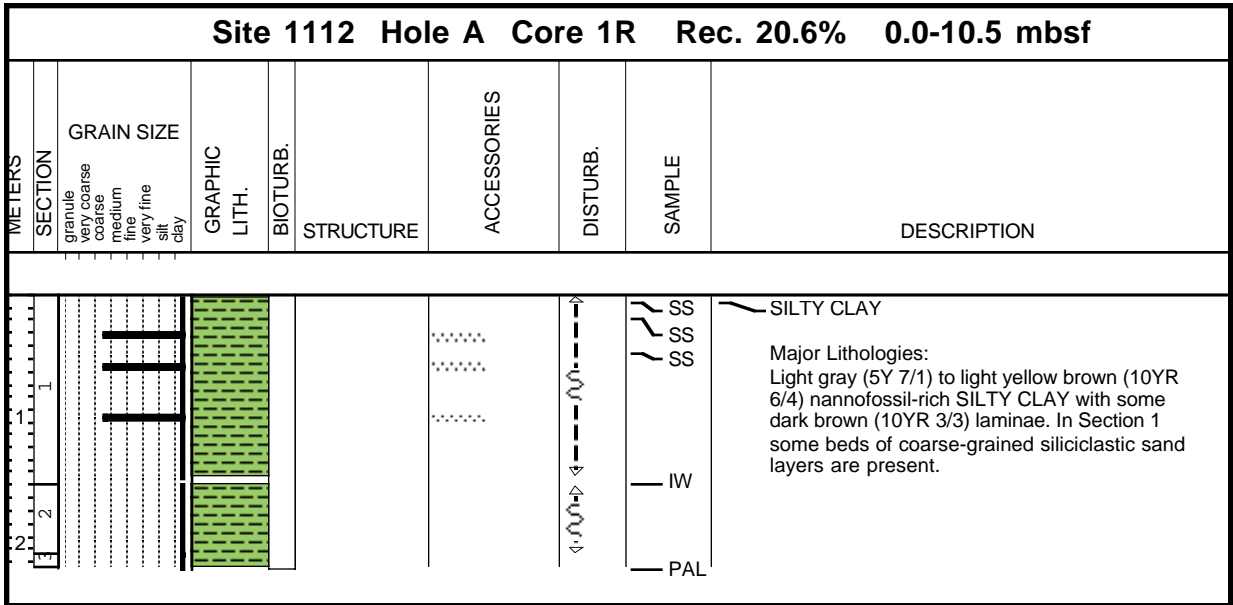


CORE DESCRIPTIONS
VISUAL CORE DESCRIPTIONS, SITE 1112

Core Photo




Core Photo

Site 1112 Hole A Core 2R Rec. 2.8% 10.5-20.5 mbsf									
METERS	SECTION	GRAIN SIZE granule very coarse coarse medium fine very fine silt clay	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION

Core Photo

180-1112A-2R-CC (10.50-10.78 mbsf)

cm	Tray number	Graphic Representation	Orientation	Shipboard studies	Graphic Lithology	Lithologic unit	Metamorphism	Structure
0	1	Sedi-ment						
10	2					1	GS	
20		Sedi-ment						
30								
40								
50								
60								
70								
80								
90								
100								
110								
120								
130								
140								
150								

UNIT: 1 HETEROGENEOUS TALUS

TRAYS: 2

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	2R	CC	2	10.58
Lower contact:	2R	CC	2	10.62
Thickness (m):	0.04			
Contact Type:	No contacts preserved.			

GENERAL: Core contains one pebble among soft sediments. Pebble is a former igneous rock altered by chlorite and epidote.

GRAIN SIZE: Fine-grained

TEXTURE: Slightly lepidoblastic


STRUCTURE: Weakly-foliated with foliation planes defined by amphibole rich layers.

ALTERATION: Veins of calcite, epidote, and pyrite occur.

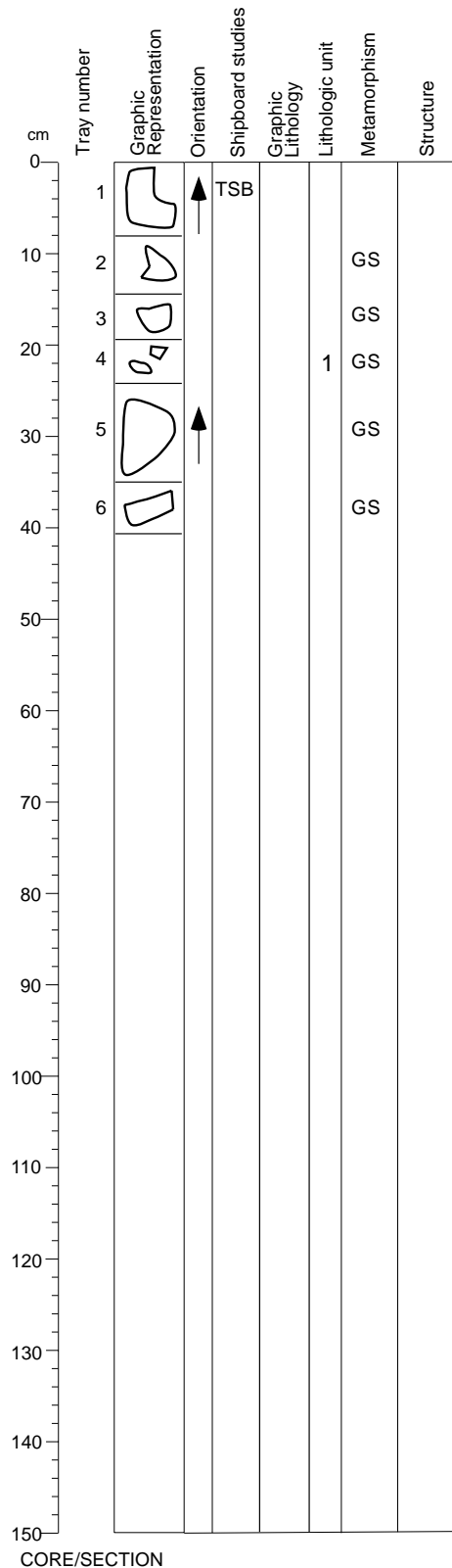
COMMENTS: Alteration is most likely hydrothermal. Pebble is likely a talus deposit from nearby Moresby Seamount.

CORE/SECTION

Core Photo

Site 1112 Hole A Core 3R Rec. 2.7% 20.5-30.1 mbsf									
METERS	SECTION	GRAIN SIZE	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
1								THS	<p>VOLCANICLASTIC SANDSTONE and GREENSCHIST</p> <p>Major Lithologies: Core contains angular pieces of VOLCANICLASTIC SANDSTONE and GREENSCHIST likely deposited as talus from nearby Moresby Seamount. VOLCANICLASTIC SANDSTONE contains quartz, feldspar, hornblende, and mica. GREENSCHIST contains chlorite and epidote with some feldspar. Refer to Petrology Visual Core Description for more details.</p>

Core Photo



180-1112A-3R-1 (20.50-20.90 mbsf)

UNIT: 1 HETEROGENEOUS TALUS

TRAY: 1

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	3R	1	1	20.50
Lower contact:	3R	1	1	20.59
Thickness (m):	0.09			

Contact Type: No contacts preserved.

GENERAL: Tray 1 contains a volcanoclastic sandstone clast.

GRAIN SIZE: Medium-grained
ALTERATION: Some red weathering, likely due to iron-oxidation, is observed on ferromagnesian grains.

COMMENTS: Volcanoclastic sandstone contains quartz, feldspar, alkali-feldspar, hornblende, and mica.

TRAYS: 2-6

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	3R	1	2	20.59
Lower contact:	3R	1	6	20.90
Thickness (m):	0.31			

Contact Type: No contacts preserved.

GENERAL: Trays 2-6 contain chlorite-epidote clasts similar to Core 2R.

GRAIN SIZE: Fine-grained
ALTERATION: Veins and vugs of calcite, epidote, and pyrite occur.

COMMENTS: Alteration is most likely hydrothermal.

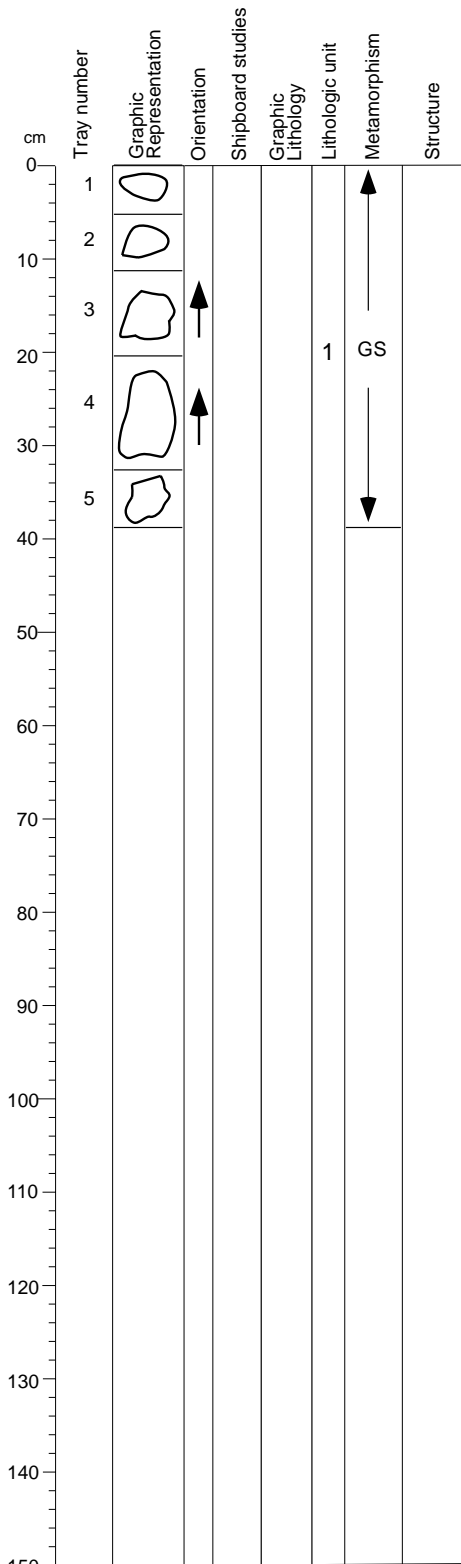
CORE/SECTION

Core Photo

Site 1112 Hole A Core 4R Rec. 2.9% 30.1-39.7 mbsf									
METERS	SECTION	GRAIN SIZE	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
1									<p>GREENSCHIST</p> <p>Major Lithology: Core consists of angular clasts of GREENSCHIST with calcite and quartz veins throughout. Clasts are likely talus deposits from nearby Moresby Seamount. Refer to Petrology Visual Core Description for more details.</p>

Core Photo

180-1112A-4R-1 (30.10-30.48 mbsf)



UNIT: 1 HETEROGENEOUS TALUS

TRAYS: 1-5

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	4R	1	1	30.10
Lower contact:	4R	1	5	30.48
Thickness (m): 0.38				
Contact Type: No contacts preserved.				

GENERAL: Trays 1-5 contain chlorite-epidote clasts similar to Core 2R.


GRAIN SIZE: Fine-grained

ALTERATION: Veins of calcite, epidote, and pyrite occur.

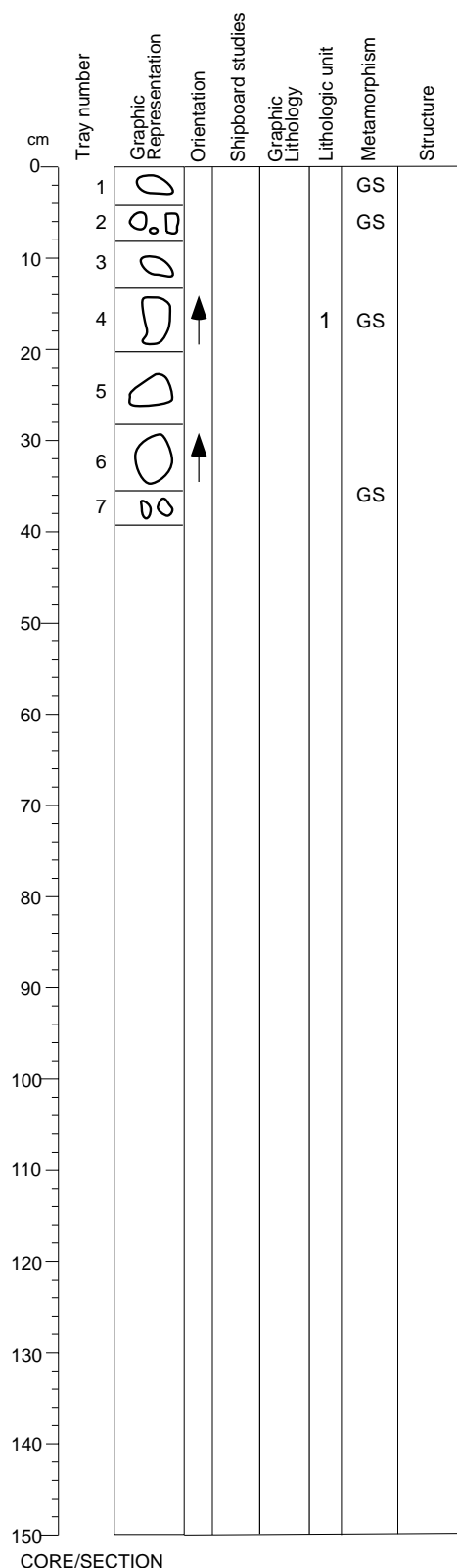
COMMENTS: Alteration is most likely hydrothermal.

CORE/SECTION

Core Photo

Site 1112 Hole A Core 5R Rec. 2.3% 39.7-49.3 mbsf									
METERS	SECTION	GRAIN SIZE	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
40	I	granule very coarse coarse medium fine very fine silt clay							<p>GREENSCHIST and VOLCANICLASTIC SANDSTONE</p> <p>Major Lithologies: Core contains angular clasts of GREENSCHIST and VOLCANICLASTIC SANDSTONE Clasts are likely talus deposits from nearby Moresby Seamount. Two of these clasts are likely quartz-feldspar porphyrys metamorphosed to GREENSCHIST grade. Refer to Petrology Visual Core Description for more details.</p>

Core Photo



180-1112A-5R-1 (39.70-40.08 mbsf)

UNIT: 1 HETEROGENEOUS TALUS

TRAYS: 1, 2, 4, and 7

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	5R	1	1	39.70
Lower contact:	5R	1	7	40.08
Thickness (m):				
Contact Type:	No contacts preserved.			

GENERAL: Trays 1, 2, 4, and 7 contain chlorite-epidote clasts similar to Core 2R.

GRAIN SIZE: Fine-grained

ALTERATION: Veins of calcite, epidote, and pyrite occur.

COMMENTS: Alteration is most likely hydrothermal.

TRAY: 3

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	5R	1	3	39.74
Lower contact:	5R	1	3	39.78
Thickness (m):	0.04			
Contact Type:	No contacts preserved.			

GENERAL: Tray contains a pebble of volcanoclastic sandstone

GRAIN SIZE: Silt

COMMENTS:

TRAYS: 5 and 6

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	5R	1	5	39.90
Lower contact:	5R	1	6	39.98
Thickness (m):	0.08			
Contact Type:	No contacts preserved.			

GENERAL: Trays 5 and 6 contain chlorite-epidote-altered clasts. Evidence of quartz and feldspar phenocrysts shows that the rock was likely a quartz-feldspar porphyry before alteration.

GRAIN SIZE: Fine- to coarse-grained with phenocrysts preserved.

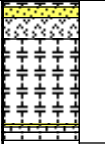
TEXTURE: Porphyritic

ALTERATION: Veins of calcite, epidote, and pyrite occur.

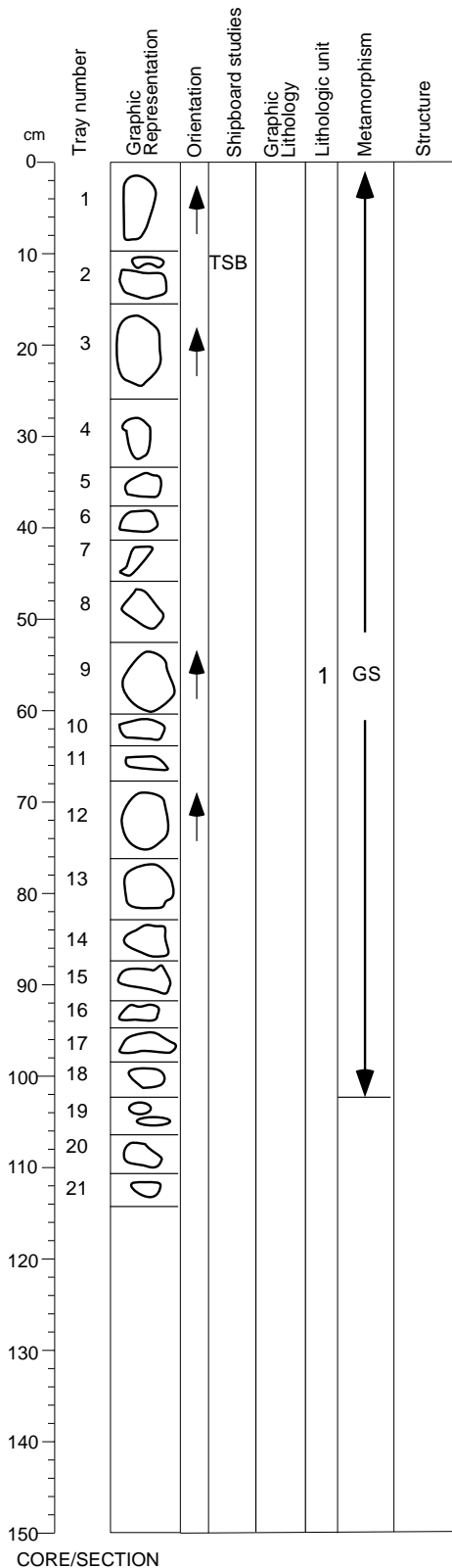
COMMENTS: Alteration is most likely hydrothermal.

CORE/SECTION

Core Photo

Site 1112 Hole A Core 6R Rec. 7.3% 49.3-58.9 mbsf									
METERS	SECTION	GRAIN SIZE	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
50								THS	<p>GREENSCHIST, VOLCANICLASTIC SANDSTONE, CARBONATE, and DOLERITE</p> <p>Major Lithologies: Core contains angular clasts of GREENSCHIST, VOLCANICLASTIC SANDSTONE, CARBONATE, and DOLERITE likely deposited as talus from nearby Moresby Seamount. Refer to Petrology Visual Core Description for more details.</p>

Core Photo



180-1112A-6R-1 (49.30-50.43 mbsf)

UNIT: 1 HETEROGENEOUS TALUS

TRAYS: 1 and 4-20

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	6R	1	1	49.30
Lower contact:	6R	1	21	50.43
Thickness (m): 1.13				
Contact Type: No contacts preserved.				

GENERAL: Trays contain chlorite-epidote clasts similar to cores 2R, 3R, 4R, and 5R.

GRAIN SIZE: Fine-grained

ALTERATION: Veins of calcite, epidote, and pyrite occur.

COMMENTS: Alteration is most likely hydrothermal.

TRAYS: 2 and 19

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	6R	1	2	49.40
Lower contact:	6R	1	19	50.36
Thickness (m):				
Contact Type: No contacts preserved.				


GENERAL: Trays contain pebbles of volcaniclastic sandstone.

GRAIN SIZE: Fine- to medium-grained

ALTERATION: Red alteration, likely iron oxidation, occurs on detrital grains.

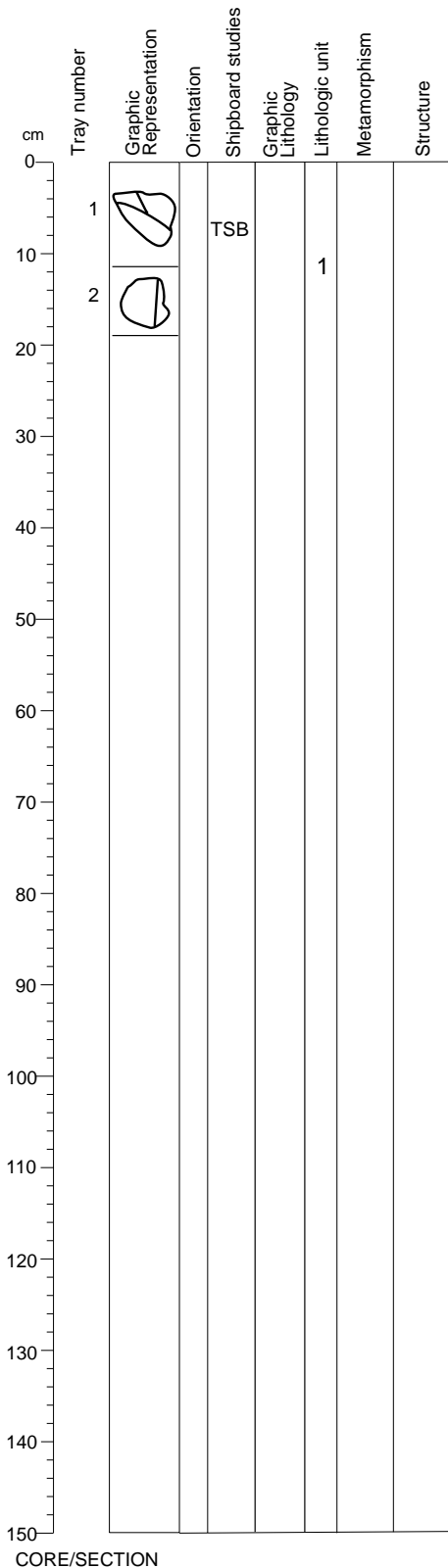
COMMENTS: Sandstones contain quartz, feldspar, micas, and ferromagnesian minerals.

Core Photo

Site 1112 Hole A Core 7R Rec. 1.5% 58.9-68.4 mbsf									
METERS	SECTION	GRAIN SIZE	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
59.1									<p>Major Lithologies: Core contains two clasts of PHYLLITE of greenschist grade. These clasts are likely talus deposits from nearby Moresby Seamount.</p>

Core Photo

180-1112A-7R-1 (58.90-59.09 mbsf)



UNIT: 1 HETEROGENEOUS TALUS

TRAYS: 1 and 2

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	7R	1	1	58.90
Lower contact:	7R	1	2	59.09
Thickness (m):	0.19			
Contact Type:	No contacts preserved.			

GENERAL: Trays contain altered rocks that were likely originally igneous.

GRAIN SIZE: Fine- to coarse-grained (1) and granular (2)

TEXTURE: Porphyritic (1), granular (2)

ALTERATION: Veins of calcite, epidote, and pyrite occur.

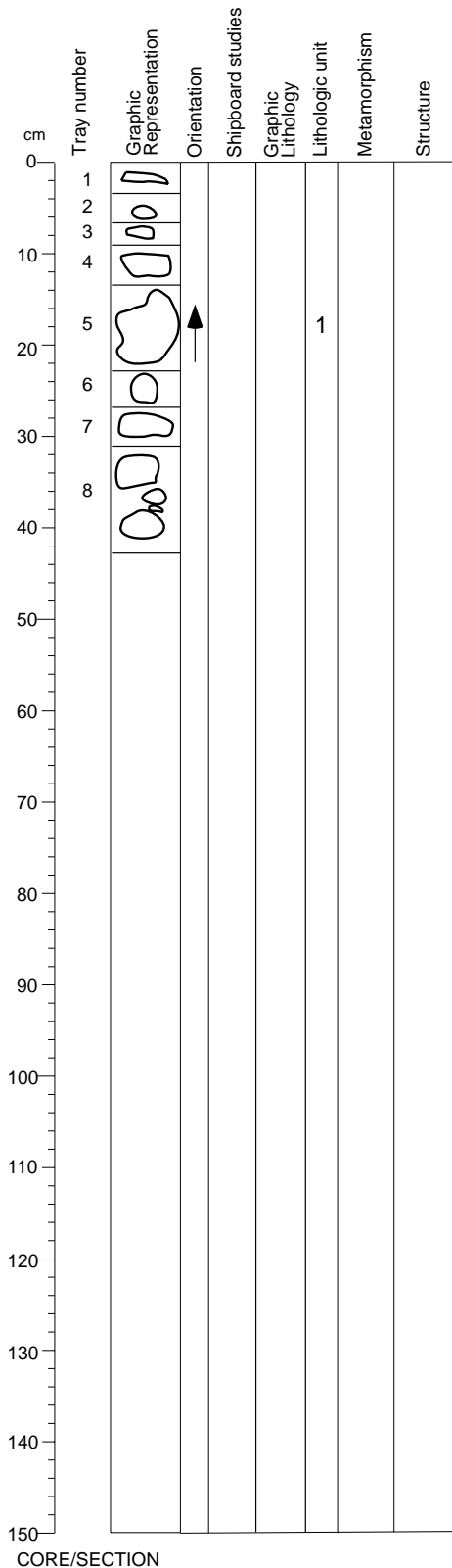
COMMENTS: Alteration is most likely hydrothermal. Tray 1 contains an altered porphyritic granitic rock. Tray two contains a less-altered clast that appears to be diabasic.

CORE/SECTION

Core Photo

Site 1112 Hole A Core 8R Rec. 3.5% 68.4-68.7 mbsf									
METERS	SECTION	GRAIN SIZE	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
1									<p>GREENSCHIST METADOLERITE, and CLAY</p> <p>Major Lithologies: Core contains green CLAY that contains 1-2 mm fragments of detrital material. Clasts of GREENSCHIST METADOLERITE are likely talus deposits from nearby Moresby Seamount. Refer to Petrology Visual Core Description for more details.</p>

Core Photo



180-1112A-8R-CC (68.40-68.73 mbsf)

UNIT: 1 HETEROGENEOUS TALUS

TRAYS: 1-7

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	8R	CC	1	68.40
Lower contact:	8R	CC	7	68.71
Thickness (m):	0.31			
Contact Type:	No contacts preserved.			

GENERAL: Trays contain altered rocks that were possibly original dolerites with epidote replacement.

GRAIN SIZE: Fine- to medium-grained

TEXTURE: Granular (original igneous)

ALTERATION: Veins of calcite, epidote, and pyrite occur.

COMMENTS: Alteration is most likely hydrothermal.

TRAY: 8

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	8R	CC	8	68.71
Lower contact:	8R	CC	8	68.83
Thickness (m):	0.12			
Contact Type:	No contacts preserved.			

GENERAL: Tray contains a light green clay with detrital lithic fragments.

GRAIN SIZE: Clay


TEXTURE: Massive

STRUCTURE: None

ALTERATION: None

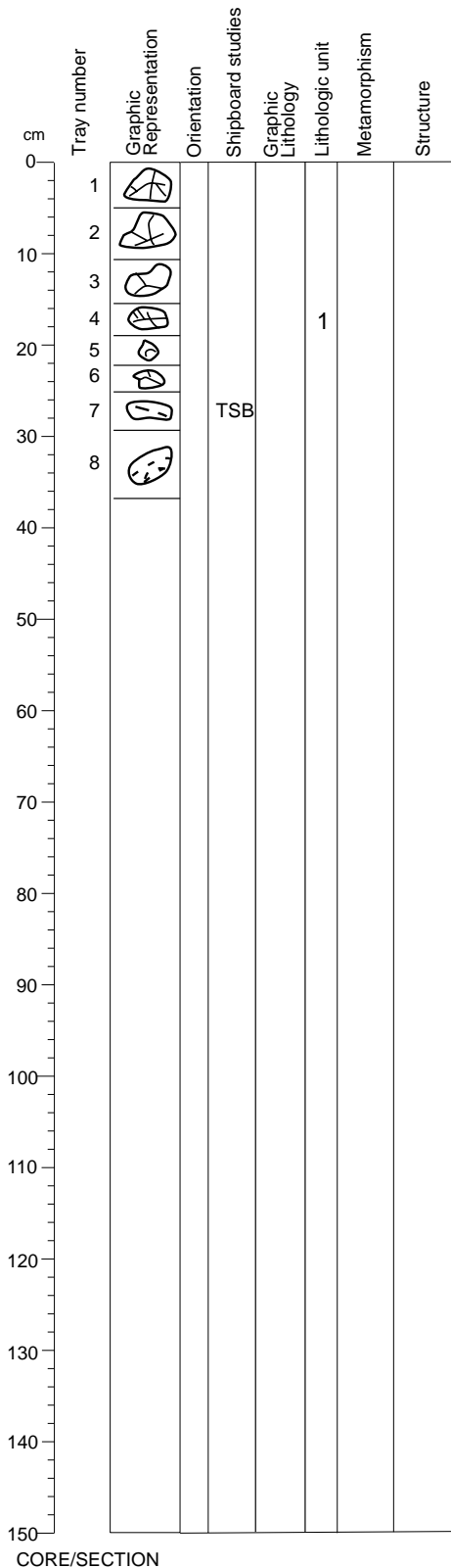
COMMENTS: This is likely the unrecovered matrix clay within the talus from nearby Moresby Seamount.

Core Photo

Site 1112 Hole A Core 9R Rec. 2.7% 77.9-87.5 mbsf									
METERS	SECTION	GRAIN SIZE	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
78	I							THS	<p>METADOLERITE and VOLCANICLASTIC SANDSTONE</p> <p>Major Lithologies: Core contains poorly-sorted, mixed, terrigenous VOLCANICLASTIC SANDSTONE and clasts of hydrothermally altered greenschist-facies METADOLERITE. Refer to Petrology Visual Core Description for more details.</p>

Core Photo

180-1112A-9R-CC (77.90-78.26 mbsf)



UNIT: 1 HETEROGENEOUS TALUS

TRAYS: 1-6

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	9R	CC	1	77.90
Lower contact:	9R	CC	6	78.16
Thickness (m):	0.26			
Contact Type:	No contacts preserved.			

GENERAL: Trays contain altered rocks that were possibly originally dolerite with epidote replacement.

GRAIN SIZE: Fine- to medium-grained
TEXTURE: Granular (originally igneous)
ALTERATION: Veins of quartz, calcite, epidote, and pyrite occur.

COMMENTS: Alteration is most likely hydrothermal.

TRAYS: 7 and 8

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	9R	CC	7	78.16
Lower contact:	9R	CC	8	78.26
Thickness (m):	0.10			
Contact Type:	No contacts preserved.			

GENERAL: Trays contain volcanoclastic sandstone.

GRAIN SIZE: Medium- to coarse-grained
TEXTURE: Massive
STRUCTURE: None
ALTERATION: None

COMMENTS: Sandstone contains quartz, feldspar, micas, and detrital lithic components.

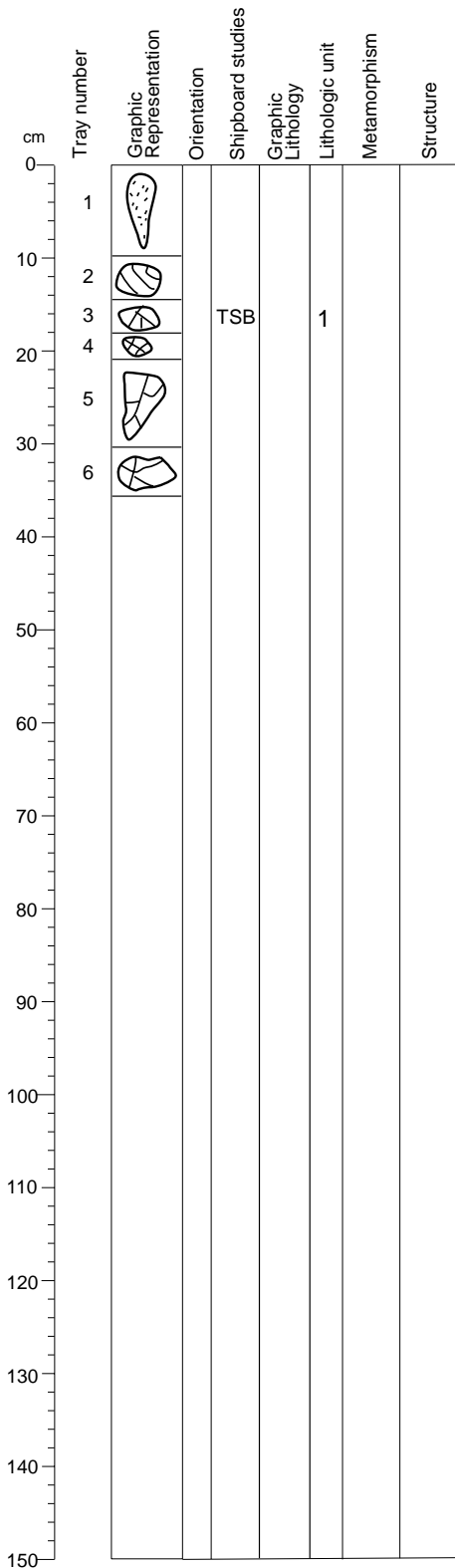
CORE/SECTION

Core Photo

Site 1112 Hole A Core 10R Rec. 2.7% 87.5-97.2 mbsf									
METERS	SECTION	GRAIN SIZE	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
1						Lth		THS	CLAY and METADOLERITE
<p>Major Lithologies: Core consists of partially lithified, green CLAY that contains detrital lithic fragments and hydrothermally altered greenschist-facies METADOLERITE containing veins of quartz, calcite, and epidote. Refer to Petrology Visual Core Description for more details.</p>									

Core Photo

180-1112A-10R-CC (87.50-87.85 mbsf)



UNIT: 1 HETEROGENEOUS TALUS

TRAY: 1

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	10R	CC	1	87.50
Lower contact:	10R	CC	1	87.60
Thickness (m):	0.10			

Contact Type: No contacts preserved.

GENERAL: Tray contains a light green clay with detrital lithic fragments.

GRAIN SIZE: Clay
TEXTURE: Massive
STRUCTURE: None
ALTERATION: None

COMMENTS: This is likely the otherwise largely unrecovered matrix clay within the Moresby Seamount talus.

TRAYS: 2-6

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	10R	CC	2	87.60
Lower contact:	10R	CC	5	87.85
Thickness (m):	0.25			

Contact Type: No contacts preserved.


GENERAL: Trays contain altered rocks that were possibly original dolerite with epidote replacement. These clasts are classified as epidotes.

GRAIN SIZE: Fine- to medium-grained
TEXTURE: Granular (original igneous)
ALTERATION: Pervasive epidote replacement. Veins of quartz, calcite, epidote, and pyrite occur.

COMMENTS: Alteration is most likely hydrothermal.

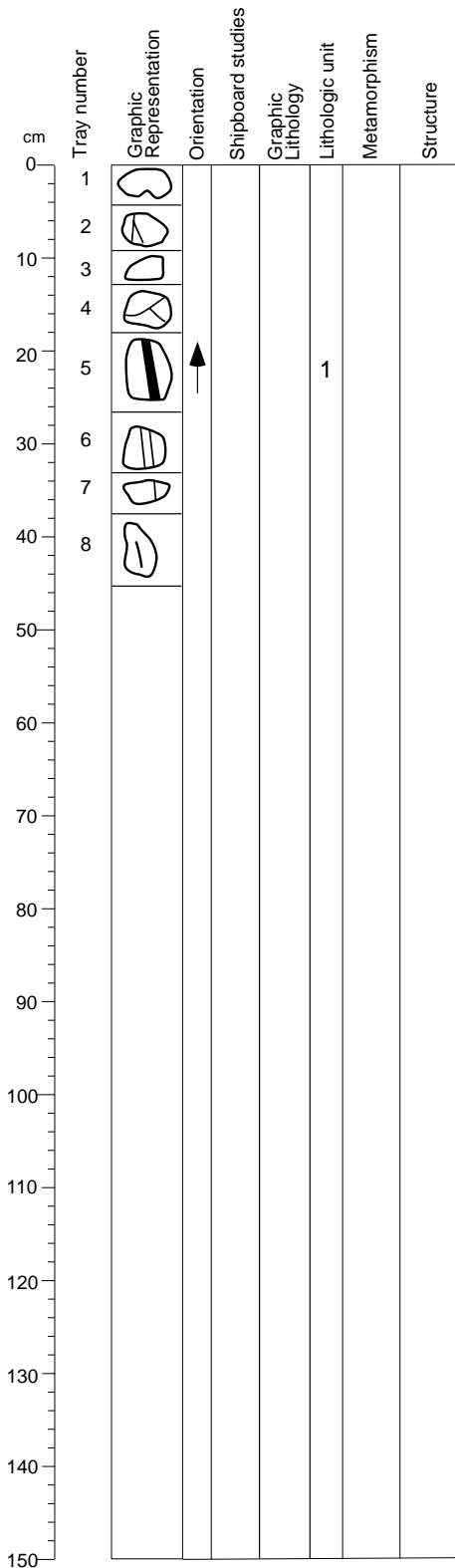
CORE/SECTION

Core Photo

Site 1112 Hole A Core 11R Rec. 8.7% 97.2-101.8 mbsf									
METERS	SECTION	GRAIN SIZE	GRAPHIC LITH.	BIOTURB.	STRUCTURE	ACCESSORIES	DISTURB.	SAMPLE	DESCRIPTION
1									<p>METADOLERITE</p> <p>Major Lithology: Core consists of clast of greenschist-facies METADOLERITE likely deposited as talus from nearby Moresby Seamount. Refer to Petrology Visual Core Description for more details.</p>

Core Photo

180-1112A-11R-CC (97.20-97.65 mbsf)



UNIT: 1 HETEROGENEOUS TALUS

TRAYS: 1-8

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	11R	CC	1	97.20
Lower contact:	11R	CC	8	97.65
Thickness (m): 0.45				
Contact Type: No contacts preserved.				

GENERAL: Trays contain altered rocks that were possibly original dolerite. These rocks are of greenschist grade and are similar to the previously-described greenschist-grade metamorphics at this site.

GRAIN SIZE: Fine- to medium-grained

TEXTURE: Granular (original igneous)

STRUCTURE: Veined

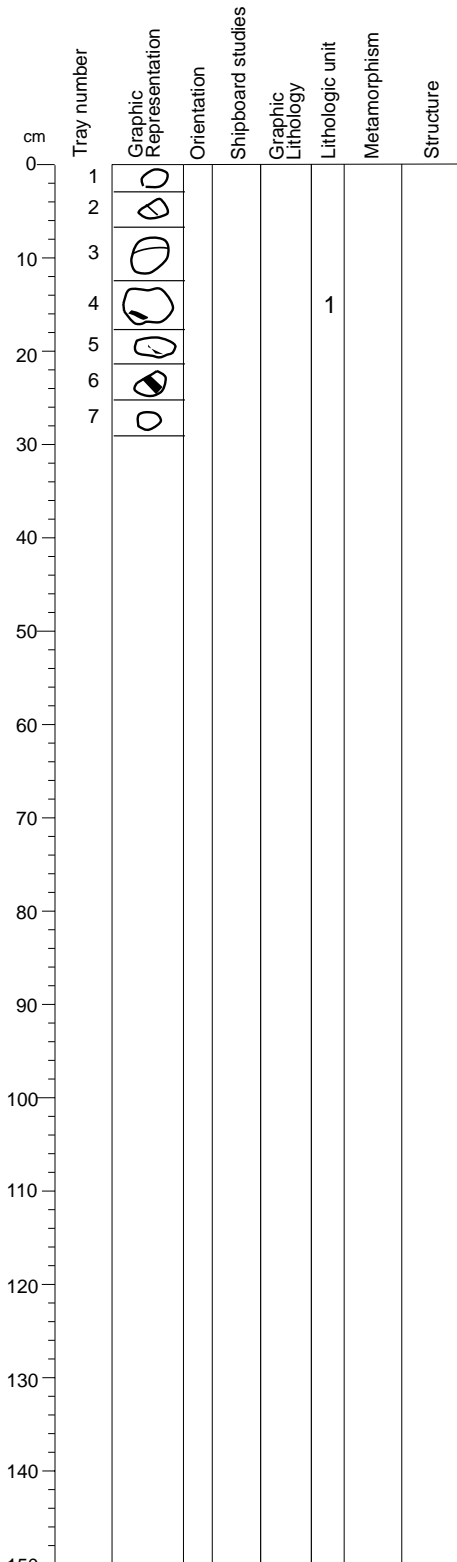
ALTERATION: Veins of quartz, calcite, epidote, and pyrite occur.

COMMENTS: Alteration is most likely hydrothermal.

CORE/SECTION

Core Photo

180-1112A-12R-CC (101.80-102.09 mbsf)



UNIT: 1 HETEROGENEOUS TALUS

TRAYS: 1-7

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	12R	CC	1	101.80
Lower contact:	12R	CC	7	102.09
Thickness (m): 0.29				
Contact Type: No contacts preserved.				

GENERAL: Trays contain altered rocks that were possibly originally dolerite or microdiorite. These rocks are of greenschist grade and are similar to the previously-described greenschist-grade metamorphics at this site.

GRAIN SIZE: Fine- to medium-grained

TEXTURE: Granular (original igneous)

STRUCTURE: Massive, veined

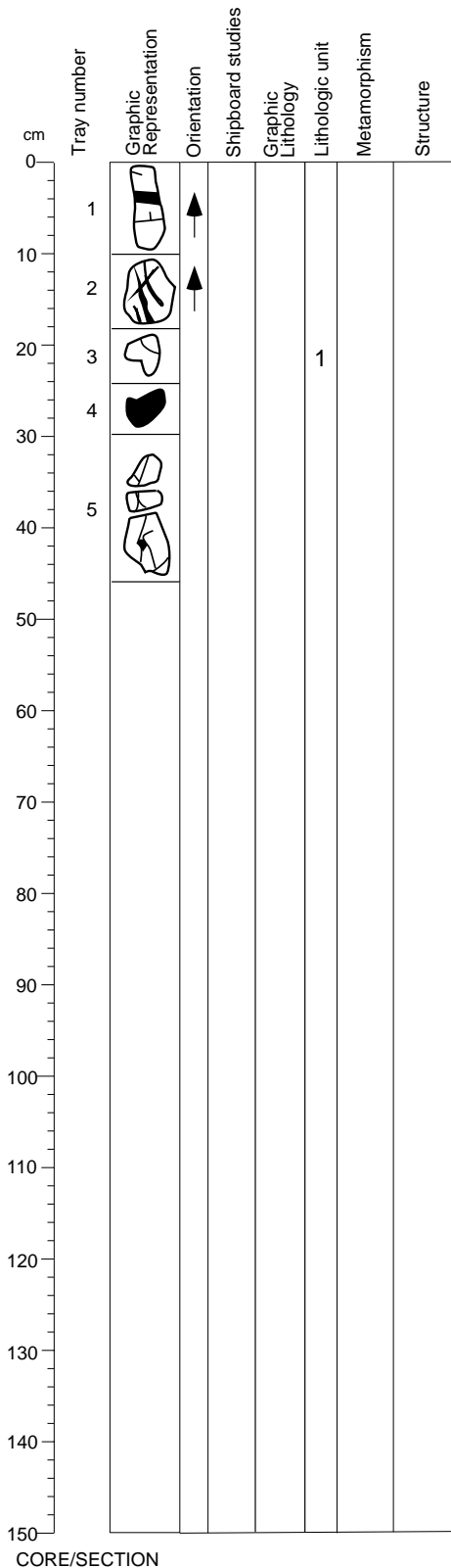
ALTERATION: Veins of quartz, calcite, epidote, and pyrite occur.

COMMENTS: Alteration is most likely hydrothermal. Special features include red material within a quartz vein in Tray 6 and a vug filled with calcite (and possibly quartz) in Tray 5.

CORE/SECTION

Core Photo

180-1112A-13R-CC (106.80-107.25 mbsf)



UNIT: 1 HETEROGENEOUS TALUS

TRAYS: 1-5

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	13R	CC	1	106.80
Lower contact:	13R	CC	5	107.25
Thickness (m): 0.45				
Contact Type: No contacts preserved.				

GENERAL: Trays contain altered rocks that were possibly original dolerite. These rocks are of greenschist grade and are similar to the previously-described greenschist-grade metamorphics at this site.

GRAIN SIZE: Fine- to medium-grained

TEXTURE: Granular (original igneous)

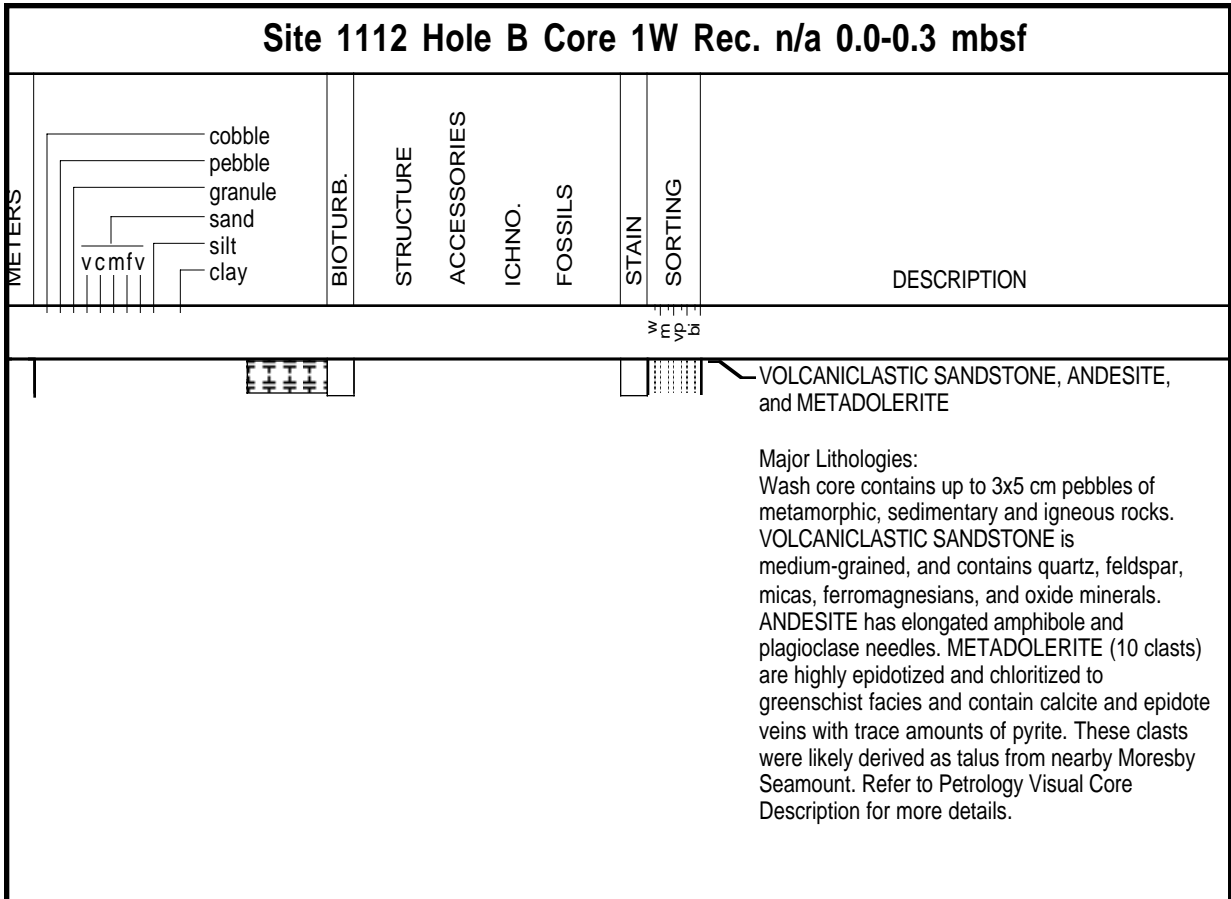
STRUCTURE: Massive, veined

ALTERATION: Veins of quartz, calcite, epidote, and pyrite occur.

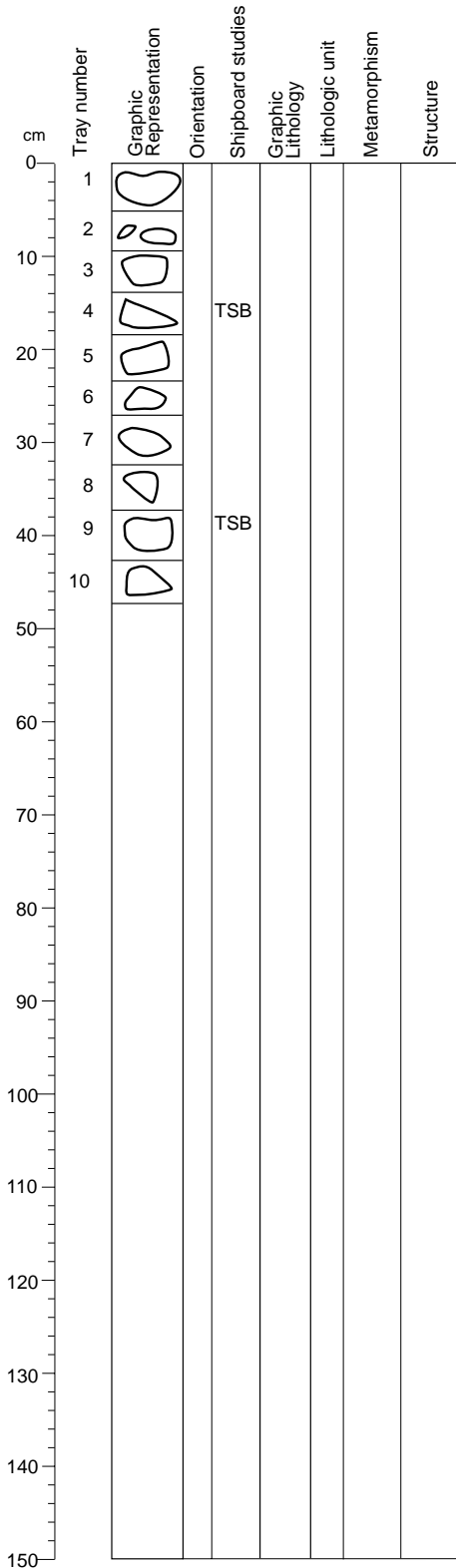
COMMENTS: Alteration is most likely hydrothermal.

CORE/SECTION

Core Photo



Core Photo



180-1112B-1W-1

UNIT: 1 HETEROGENEOUS TALUS

TRAYS: 1,2,5,6, and 7

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	1W	1	1	----
Lower contact:	1W	1	7	----
Thickness (m):	---			

Contact Type: No contacts preserved.

GENERAL: Trays contain volcanoclastic sandstone.

GRAIN SIZE: Medium grained

TEXTURE: Granular

ALTERATION: Veins of calcite occur. A prominent calcite vein occurs in Tray 5.

COMMENTS: Clasts are likely a talus deposit from nearby Moresby Seamount.

TRAYS: 3,8,9, and 10

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	1W	1	3	----
Lower contact:	1W	1	10	----
Thickness (m):	---			

Contact Type: No contacts preserved.

GENERAL: Trays contain altered rocks that were possibly originally dolerite or microdiorite. These rocks are of greenschist grade and are similar to the previously-described greenschist-grade metamorphics in this site.

GRAIN SIZE: Fine- to medium-grained

TEXTURE: Granular

ALTERATION: Veins of calcite and epidote occur. Pyrite also occurs within these veins.

COMMENTS: Alteration is most likely hydrothermal. Clasts are likely a talus deposit from nearby Moresby Seamount.

TRAYS: 4

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	1W	1	4	----
Lower contact:	1W	1	4	----
Thickness (m):	---			

Contact Type: No contacts preserved.

GENERAL: Tray contains an andesite with elongated amphibole and plagioclase needles.

GRAIN SIZE: Fine-grained

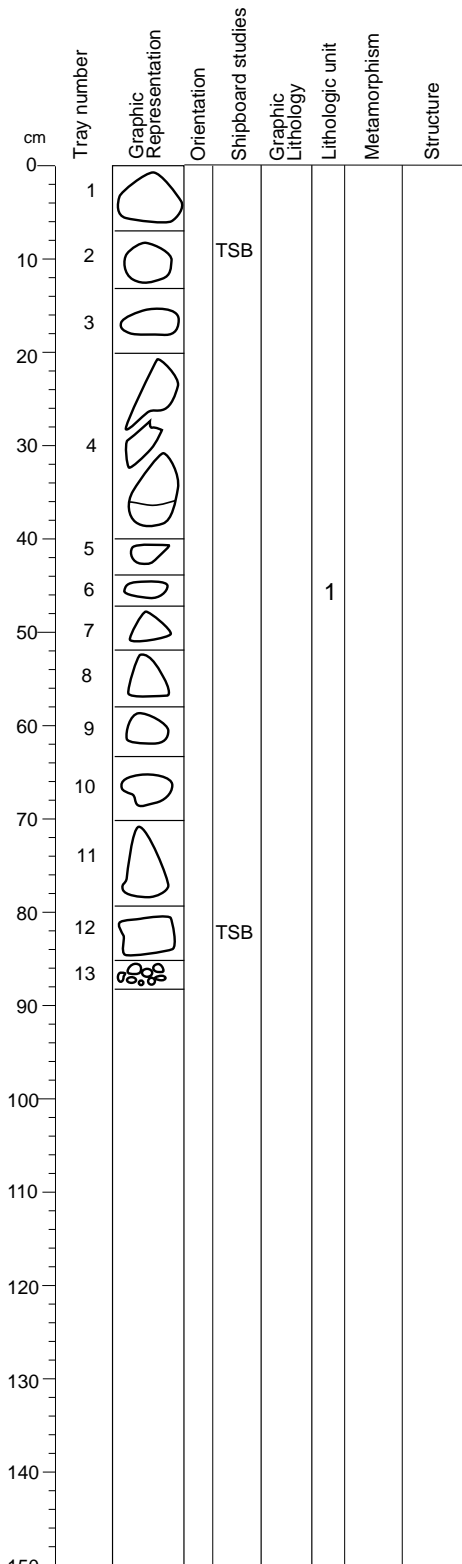
TEXTURE: Trachytoid

COMMENTS: The fresh andesite is a likely protolith of some of the metamorphic rocks recovered.

CORE/SECTION

1112B-2W-1 WASHED CORE INTERVAL (87.1-126.1 mbsf).

Core Photo



180-1112B-3R-1 (126.10-126.97 mbsf)

UNIT: 1 HETEROGENEOUS TALUS

TRAYS: 1-3 and 5-13

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	3R	1	1	126.10
Lower contact:	3R	1	13	126.97
Thickness (m):				
Contact Type: No contacts preserved.				

GENERAL: Trays contain metadolerite.

GRAIN SIZE: Fine- to medium-grained

TEXTURE: Granular

ALTERATION: Epidote and chlorite alteration with veins of calcite, quartz, and epidote.

COMMENTS: Clasts are likely a talus deposit from nearby Moresby Seamount. All of the above indicated trays have veins. Trays 2 and 3 have epidote veins. Trays 7-12 have quartz veins. Trays 1 and 5 have calcite veins. Tray 13 contains a blotchy metadolerite with indeterminate granules.

TRAY: 4

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	3R	1	4	126.30
Lower contact:	3R	1	4	126.60
Thickness (m): 0.30				
Contact: No contacts preserved.				

GENERAL: Tray contains clay with up to 1 cm clasts of the previously-described rocks.

GRAIN SIZE: Clay

TEXTURE: Massive

STRUCTURE: None

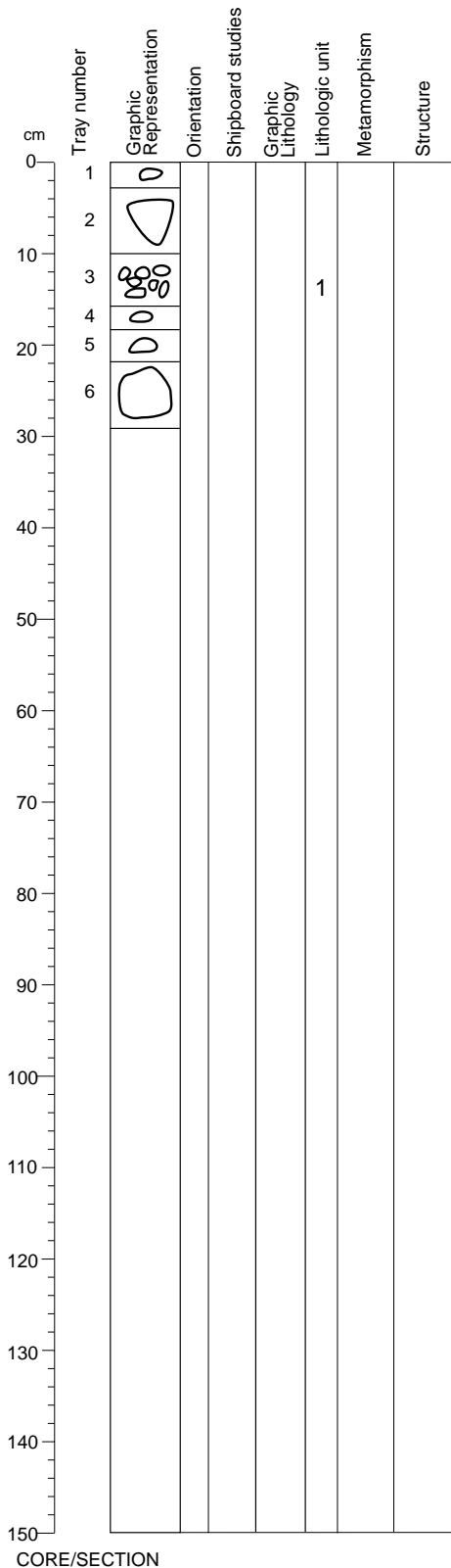
ALTERATION: None

COMMENTS: This is likely the unrecovered matrix within the Moresby Seamount talus.

CORE/SECTION

Core Photo

180-1112B-4R-1 (135/70-135.98 mbsf)



UNIT: 1 HETEROGENEOUS TALUS

TRAYS: 1-6

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	4R	1	1	135.70
Lower contact:	4R	1	6	135.98
Thickness (m): 0.28				
Contact Type: No contacts preserved.				

GENERAL: Trays contain metadolerite.

GRAIN SIZE: Fine- to medium-grained

TEXTURE: Granular

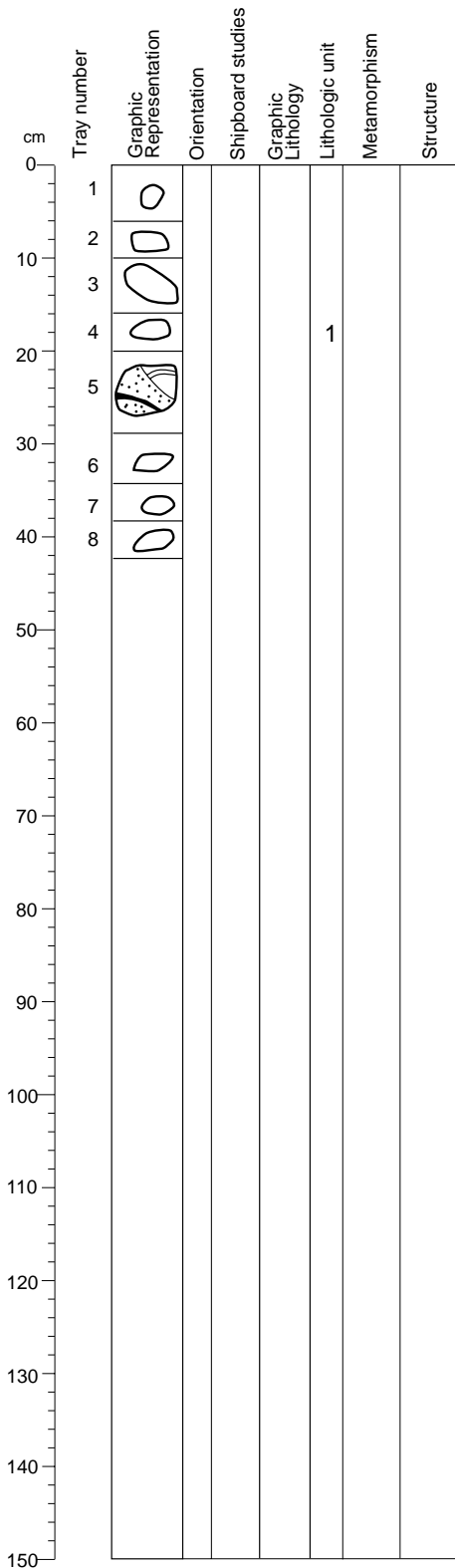
ALTERATION: Epidote and chlorite alteration with veins of calcite, quartz, and epidote.

COMMENTS: All of the above indicated trays have veins. Trays 2 and 3 have epidote veins. Trays 7-12 have quartz veins. Tray 3 contains numerous fragments that are indeterminable in hand-sample.

CORE/SECTION

Core Photo

180-1112B-5R-1 (145.40-145.83 mbsf)



UNIT: 1 HETEROGENEOUS TALUS

TRAYS: 1-8

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	5R	1	1	145.40
Lower contact:	5R	1	8	145.83

Thickness (m):
Contact Type: No contacts preserved.

GENERAL: Trays contain metamorphosed, highly-siliceous rocks hydro-thermally altered to Greenschist facies conditions.

GRAIN SIZE: Fine-grained

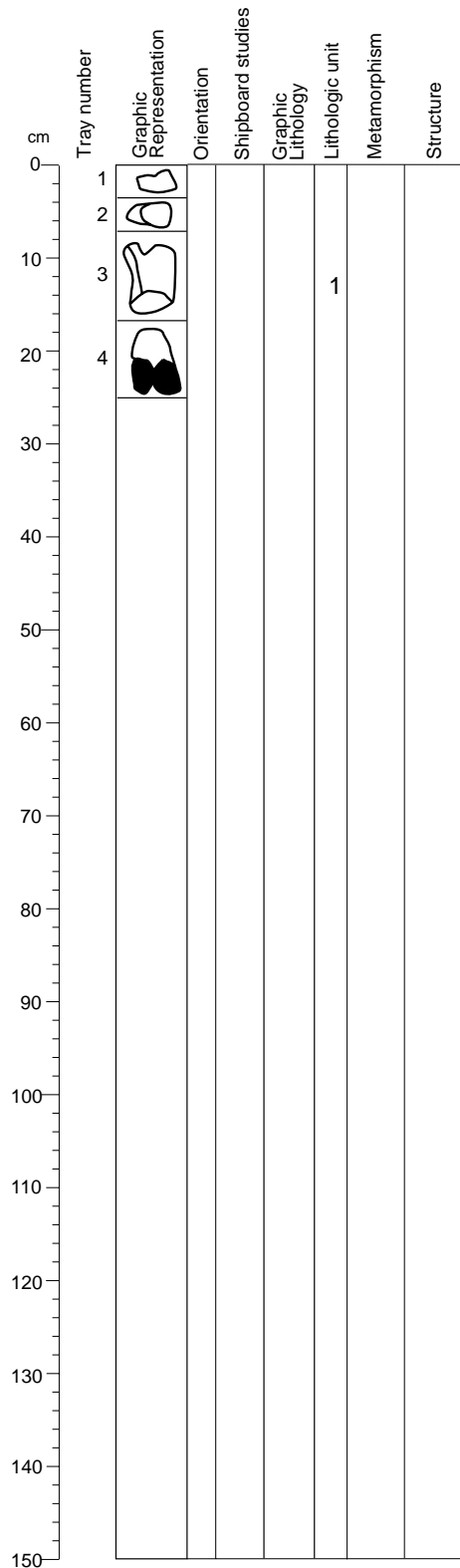
TEXTURE: ??

ALTERATION: Epidote and chlorite alteration with veins of calcite, quartz, and epidote. Red blotches also occur, may be former oxidized lithics from sedimentary source.

COMMENTS: All of the above indicated trays have veins. These rocks are more siliceous than what have been referred to as metadolerite. It is possible that red blotches within these siliceous rocks were originally oxidized detrital grains in sandstones.

CORE/SECTION

Core Photo



180-1112B6R-1 (155.00-155.23 mbsf)

UNIT: 1 HETEROGENEOUS TALUS

TRAYS: 1 and 2

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	6R	1	1	155.00
Lower contact:	6R	1	2	155.07
Thickness (m): 0.07				
Contact Type: No contacts preserved.				

GENERAL: Trays contain metadolerite.

GRAIN SIZE: Fine- to medium-grained

TEXTURE: Granular

ALTERATION: Epidote and chlorite alteration with veins of calcite and quartz.

COMMENTS: Rock is likely hydrothermally altered.

TRAYS: 3 and 4

Interval Location:	Core	Section	TRAY	Depth (mbsf)
Upper contact:	6R	1	3	155.07
Lower contact:	6R	1	4	155.23
Thickness (m): 0.16				
Contact: No contacts preserved.				

GENERAL: Trays contain clay with up to 1 cm clasts of the previously-described rocks.

GRAIN SIZE: Clay

TEXTURE: Massive

STRUCTURE: None

ALTERATION: None

COMMENTS: This is likely the unrecovered matrix within the Moresby Seamount talus.

CORE/SECTION

Core, section interval (cm)	Depth (mbsf)	Described by	Lithology (dominant/minor)	Siliciclastic and volcanoclastic composition																	Biogenic composition										Sediment or rock name						
				Sand	Silt	Clay	Quartz	Feldspar	Plagioclase	Muscovite	Biotite	Clauconite	Amphibole	Pyroxene	Rock fragments (sedimentary)	Rock fragments (metamorphic)	Rock fragments (basaltic)	Volcanic glass	Volcanic glass (brown)	Volcanic glass (colorless)	Accessory minerals	Carbonate	Calcite	Dolomite	Opaque (oxide)	Opaque (sulfide)	Fe oxides	Climoptilolite	Phillipsite	Other		Clay	Nannofossils	Foraminifers	Diatoms	Radiolarians	Sponge spicules
180-1112A-1R-1, 5	0.05	TS	D	c	a	r	r				r					r		c									a	a	c	r							Silty clay nannofossil ooze
1R-1, 19	0.19	AR	D	r	c	a	r	r					r	r				r					r				a	a	r	r	r						Silty clay
1R-1, 45	0.45	TS	D	c	a	r	c			r					r		r										a	a	r		r					Silty clay nannofossil ooze	
2R-CC, 14	10.64	AR	M	r	a	c		r					r	a	a												a	c	r							Brown glass-rich volcanic ash	
2R-CC, 17	10.67	TS / AR	D	c	a	r	r		r			r	r	r		r							r				a	a	r		r					Silty clayey nannofossil ooze	
2R-CC, 20	10.70	AR	D	r	a	c	r	r								r							r				a	a	r		c					Clayey silt	
2R-CC, 23.5	10.73	TS	M	c	a	r	r						a	a		r		r									a	a	r		r					Colorless glass-rich volcanic ash	

Note: a = abundant (51%–100%); c = common (11%–50%); r = rare (1%–10%).

**CORE DESCRIPTIONS
SEDIMENTARY THIN SECTIONS, SITE 1112**

Thin-section number	Core, section, interval (cm)	Depth (mbsf)	Described by	Lithology (dominant/minor)	Size			Minerals											Rock fragments					Matrix (%)	Bioclasts (%)	Carbonaceous detritus	Rock name	Comments	
					Sand	Silt	Clay	Minerals %	Quartz	Strained	Feldspar	Multiple twins	Single/untwinned	Mica	Biotite	Chlorite	Accessory Minerals	Clinopyroxene	Amphibole	Epidote	Opauques	Rock fragments (%)	Volcanic						Rhyolitic/dacitic
122	180-1112A-3R-1, 2-5	20.52	TRS	M	A	R	R	30	R	a	A	c	c	R	a	C	c	a	50	A		a	20					Medium-grained sandstone	Poorly sorted, angular detrital mineral grains, subrounded rock fragments
123	6R-1, 10-12	49.40	TRS	M	R	C	A	20	R		C		C	a	C	R	a	C					79	1	a	Silty claystone	Claystone matrix, rare disseminated carbonaceous detritus		
125	9R-CC, 25-27	78.15	TRS	M	A	R		40		A	a	c	R	a	R	R	a	r	60	A	c	r	a	r			Coarse-grained sandstone	Poorly sorted, subrounded rock fragments, angular detrital mineral grains	

Note: A = abundant (51%–100%); C = common (11%–50%); R = rare (1%–10%); lower case letters indicate subcategories of the major constituents.

180-1112A-7R-1 (7- 10 cm)

Thin section: # 124

ROCK NAME: Calc-silicate rock

GRAIN SIZE: Coarse- to Fine-grained

TEXTURE: Porphyritic

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
Amphibole or Clinopyroxene	0	15	Up to 4		Euhedral	Porphyroclast pseudomorphed into serpentinite.
SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING		COMMENTS		
Quartz	35	Vein	0.1	Very fine grained quartz associated in veins and tails around pyrite.		
Calcite	40	?Veins	0.3	Fibrous in tails around pyrite, filling veins, and in the matrix.		
Pyrite	15		2-5	Stretched pyrite, crystallization of calcite fibers in fractures between the pyrite fragments.		
Chlorite	10	Porphyroclasts				

COMMENTS: Intensely altered rocks, calcite, quartz, and pyrite are dominant, indicating hydrothermal alteration. Primary mineralogy difficult to determine.

180-1112A-10R-CC (15- 17 cm)
Thin section: # 126
ROCK NAME: Cataclastic Epidosite
GRAIN SIZE: Fine-grained
TEXTURE: Mortar

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
Quartz	20	0.2			Anhedral	
White mica	5	0.1			Platy	
Plagioclase	20	0.1			Anhedral	Replaced by epidote.

SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING	SIZE (mm)	COMMENTS
Quartz	5	Vein	0.1	Very fine grained quartz associated in veins and tails around pyrite.
Chlorite	5	Mica	0.1	
Epidote	30	Plagioclase, vein	2-5	Granular.
Clay	10	All	0.1	In the matrix associated with epidote.
Pyrite	5			

COMMENTS: Intensely altered rocks, calcite, quartz, and pyrite are dominant, indicating hydrothermal alteration. Primary mineralogy difficult to determine.

180-1112B-1W-1 (12- 17 cm)

Thin section: # 127

ROCK NAME: Intermediate volcanic

GRAIN SIZE: Fine-grained

TEXTURE: Trachytoid

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
Clinopyroxene	10	-	1-2		Subhedral	
Amphibole	50	-	0.5		Euhedral	Elongated amphibole needles.
Quartz	5	-	Up to 4		Subhedral	Embayments against the groundmass.
Plagioclase	20	-	0.05		Subhedral	Elongated plagioclase needles.
Biotite	2	-	0.5-1		Subhedral	Associated with pyroxene.
Groundmass	3	-				

SECONDARY MINERALOGY	PERCENT	REPLACING/FILLING	COMMENTS
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Negligible

COMMENTS: Cannot be classified without the chemical composition due to fine-grained groundmass.

180-1112B-3R-1 (Piece 2, 8- 10 cm)

Thin section: #128

ROCK NAME: Epidosite

GRAIN SIZE: Fine-grained

TEXTURE: Granular

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
SECONDARY MINERALOGY	REPLACING/ PERCENT	FILLING				COMMENTS
Quartz	30					
Calcite	30					
Epidote	30					

COMMENTS: Network of fractures (0.1 to 0.5 mm wide) filled with quartz +epidote +/- calcite. Cataclastic zone (1-2 mm wide).

180-1112B-1W-1 (piece 12, 55- 57 cm)

Thin section: # 129

ROCK NAME: Metadolerite

GRAIN SIZE: Coarse- to coarse-grained

TEXTURE: Porphyritic with poikilitic groundmass

PRIMARY MINERALOGY	PERCENT PRESENT	PERCENT ORIGINAL	SIZE (mm)	COMPOSITION	MORPHOLOGY	COMMENTS
Pyroxene	20	20	1		Poikilitic	
Olivine	0	10	1		Euhedral	
Amphibole	25	?	0.5		Fine needles	
SECONDARY MINERALOGY	PERCENT	REPLACING/ FILLING		COMMENTS		
Quartz	20	1		Interstitial.		
Calcite	2	Veins	0.3	Fibrous in tails around pyrite, filling veins, and in the matrix.		
Serpentine	30	Olivine, veins		2-5	Occurs as pseudomorphs and in groundmass.	

COMMENTS: A very difficult rock to classify in thin section, XRF shows it to be an original dolerite.