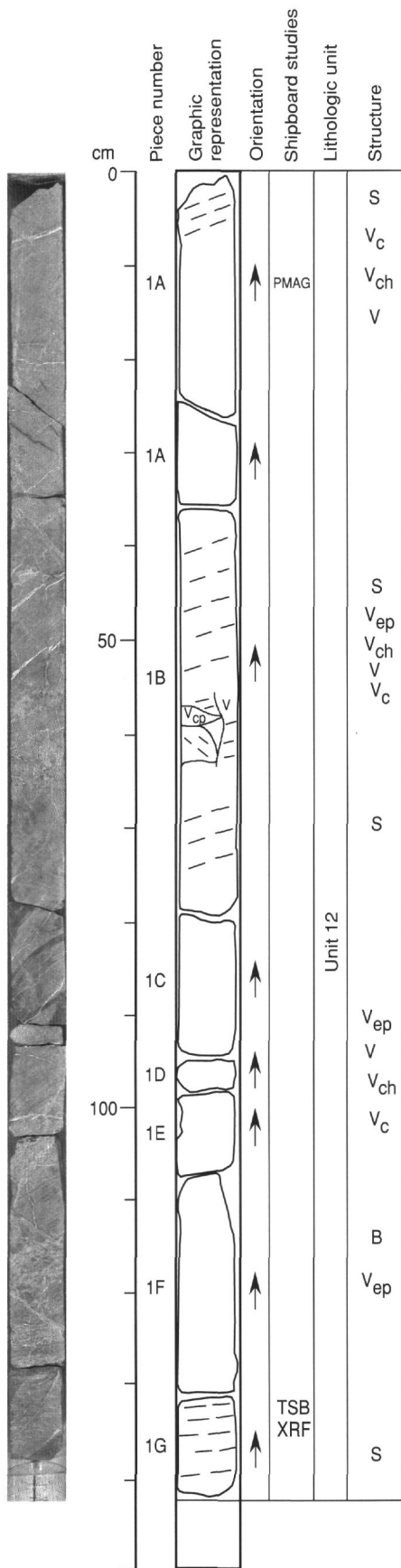


149-900A-82R-2

UNIT 12: METAMORPHOSED MAFIC ROCK

Pieces 1A-1G



CONTACTS: None exposed in these pieces.

PHENOCRYSTS: None.

GROUNDMASS: Metamorphosed, chlorite and amphibole-rich.

VESICLES: None visible.

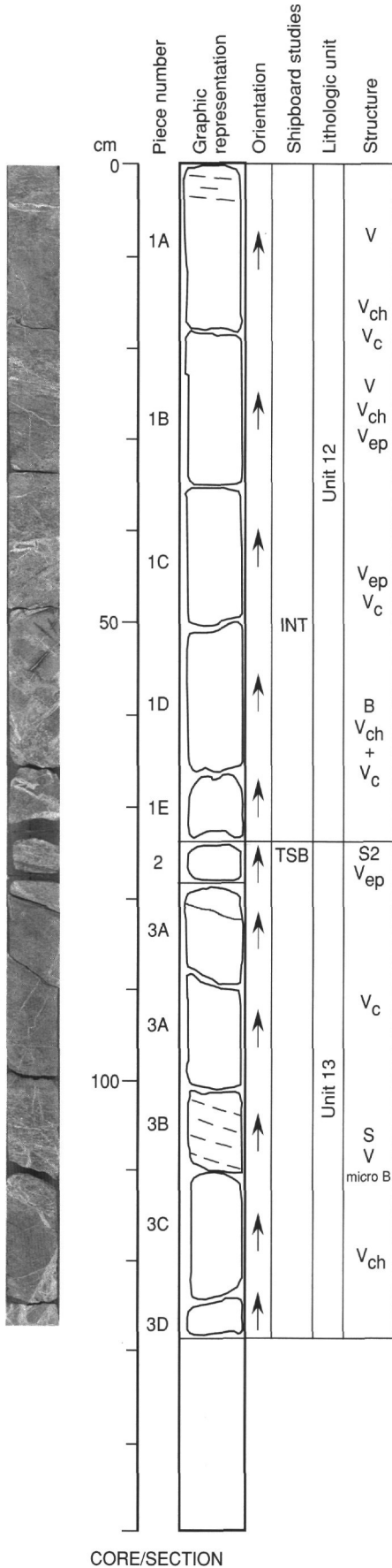
COLOR: Dusky green (5G 3/2).

STRUCTURE: Rock has a pervasive foliation formed during a ductile shear deformation overprinted by an intense fracturing which locally brecciated this rock.

VEINS/FRACTURES: At least three generations of fractures are obvious in this section. The earliest visible here are diffuse patches and veins of epidote. They locally appear organized in sets of sheared conjugate veins. These are cut by distinctive white veins (noncarbonate). These in turn are cut by zones of calcite.

ADDITIONAL COMMENTS: Unit continues from Section 149-900A-82R-1 and into the next section.

CORE/SECTION



UNIT 12: METAMORPHOSED MAFIC ROCK

Pieces 1A–1E

CONTACTS: Base of this unit is marked by the brecciated zone in Piece 2.
PHENOCRYSTS: None.
GROUNDMASS: Metamorphosed, chlorite and amphibole-rich.
VESICLES: None.
COLOR: Dusky green (5G 3/2).
STRUCTURE: Fine-grained rock locally visibly foliated. Pieces 1C and 1D are brecciated with a calcite matrix.
VEINS/FRACTURES: At least three generations of fractures are present. The earliest are diffuse veins of epidote. These are cut by distinctive white veins which are in turn cut by calcite. Unit continues from Section 149-900A-82R-2

UNIT 13: METAMORPHOSED MAFIC ROCK

Pieces 2–3D

CONTACTS: Upper contact is within Piece 2. Lower boundary at about 95 cm in 900A-82R-4.
PHENOCRYSTS: None.
GROUNDMASS: Metamorphosed, chlorite and amphibole-rich.
VESICLES: No vesicles.
COLOR: Dusky green (5G 3/2).
STRUCTURE: Piece 2 is marked by low temperature shearing and brecciation.
VEINS/FRACTURES: Pieces 3C and 3D are brecciated with a calcite matrix. This brecciation is less obvious in Pieces 3A and 3B. Veining as in Piece 1 above.

CORE/SECTION

149-900A-82R-4

UNIT 13: METAMORPHOSED MAFIC ROCK

Pieces 1A–1F and 2A (part)

CONTACTS: Lower contact is at about 95 cm, within Piece 2A, and is strongly inclined to the length of core and marked by a zone of brecciation and veining.

PHENOCRYSTS: No phenocrysts.

GROUNDMASS: Metamorphosed, chlorite and amphibole-rich.

VESICLES: No vesicles.

COLOR: Dusk green (5G 3/2)

VEINS/FRACTURES: At least three generations of fractures are present. The earliest are veins of epidote. These are cut by rare white veins. The most recent veining is associated with calcite alteration.

ADDITIONAL COMMENTS: Patches of epidote between 82–107 cm fine-grained rocks locally visibly foliated. Later intense fracturing, infilled mainly with epidote and calcite.

UNIT 14: METAMORPHOSED MAFIC ROCK

Pieces 2A (part) and 2B

CONTACTS: Upper contact is at about 95 cm, with Piece 2A, and is strongly inclined to the length of the core.

PHENOCRYSTS: No phenocrysts.

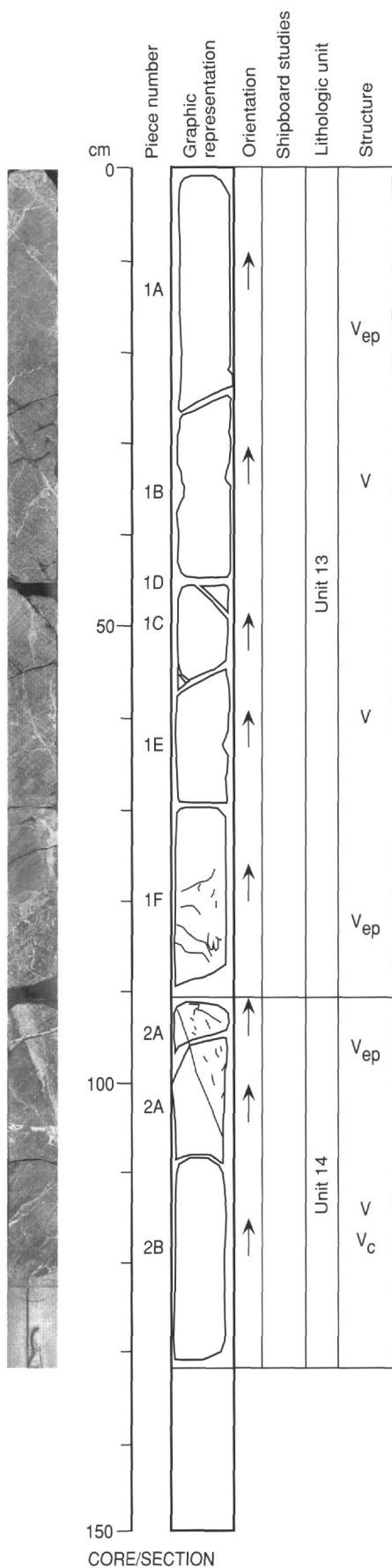
GROUNDMASS: Metamorphosed, chlorite, amphibole, plagioclase.

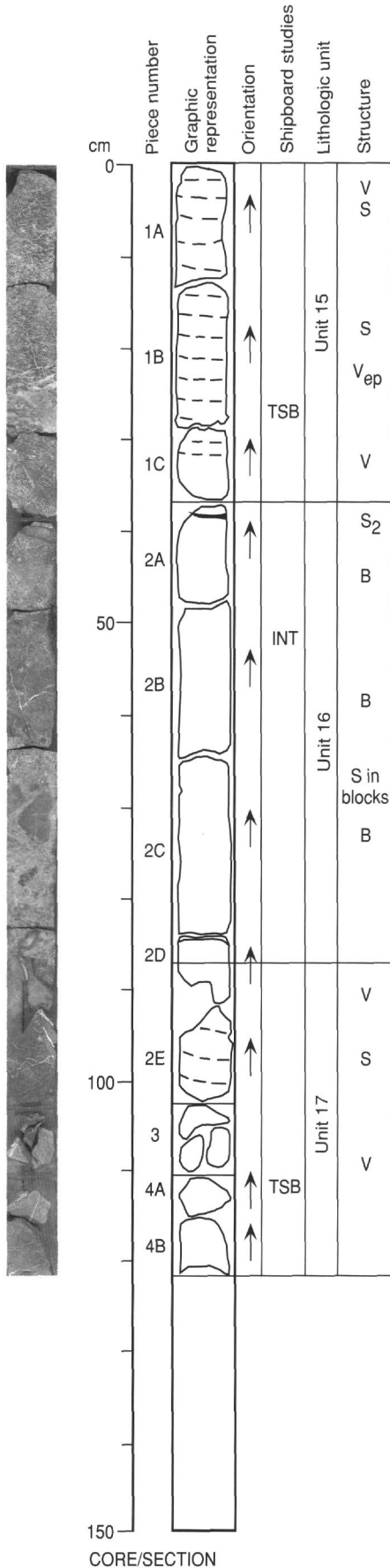
VESICLES: No vesicles.

COLOR: Dusky green (5G 3/2).

STRUCTURE: Late intense fracturing infilled mainly with calcite.

ADDITIONAL COMMENTS: Pieces show extensive veining and alteration. Unit does not continue in the next section and lower contact relations are unclear.





UNIT 15: FLASER GABBRO

Pieces 1A–1C

CONTACTS: Upper contact not observed. Lower contact sharp is drawn between Pieces 1C and 2 at thin 1.5 cm debris band.
PHENOCRYSTS: No phenocrysts.
GROUNDMASS: Plagioclase and former pyroxene (chlorite + amphibole) are about equally abundant.
VESICLES: None.
COLOR: Dusky blue-green (5BG 3/2) and light greenish gray (5GY 8/1).
STRUCTURE: Flasered fabric. Overprinted by fracturing.
ALTERATION: Rock is metamorphosed and veined with chlorite and later pinkish mineral (pink calcite?)

UNIT 16: BRECCIA

Pieces 2A–2D (part)

CONTACTS: Upper contact zone is a 1.5 cm thick interflow debris band at the top of Piece 2A.
PHENOCRYSTS: No phenocrysts.
GROUNDMASS: Metamorphosed, chlorite, amphibole.
VESICLES: No vesicles.
COLOR: Dusky blue green (5BG 3/2) dominates in patchy rock.
STRUCTURE: Low temperature shear deformation localized between 38–41 cm. Brecciated with large angular fragments. Some late stage calcite in matrix.

UNIT 17: MAFIC ROCK

Pieces 2D (part), 2E, 3, 4A, and 4B

CONTACTS: Sharp, cut by breccia at the upper contact. Continues into 149-900A-83R-1.
PHENOCRYSTS: No phenocrysts.
GROUNDMASS: Metamorphosed, chlorite, amphibole.
VESICLES: None.
COLOR: Dusky green (5G 3/2).
STRUCTURE: Ductile foliation overprinted by fracturing.
VEINS/FRACTURES: Chlorite and later white/brown veins (up to 3 mm).
ADDITIONAL COMMENTS: Unit continues in 149-900A-83R-01.

149-900A-83R-1

UNIT 17: METAMORPHOSED MAFIC ROCK

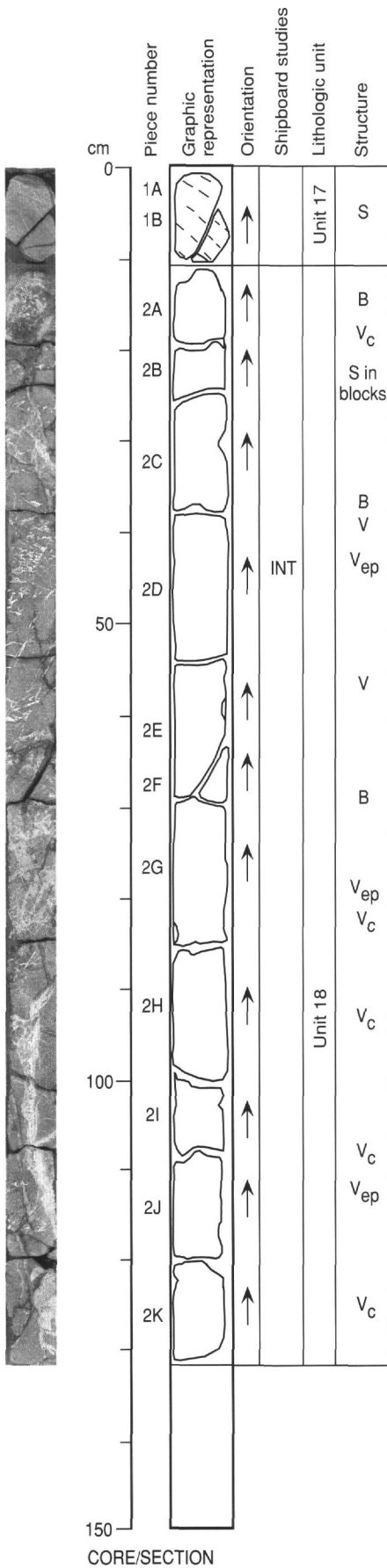
Pieces 1A-1B

CONTACTS: None.
PHENOCRYSTS: No phenocrysts.
GROUNDMASS: Chlorite and amphibole.
VESICLES: None.
COLOR: Grayish olive green (5GY 3/2).
STRUCTURE: Ductile foliation overprinted by white thin veins.
VEINS/FRACTURES: A few small veins.
ADDITIONAL COMMENTS: Unit continues from 149-900A-82R-5.

UNIT 18: BRECCIATED MAFFIC ROCK

Pieces 2A-2K

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Chlorite and amphibole?
VESICLES: 0%; None.
COLOR: Dark greenish gray (5GY 4/1).
STRUCTURE: Ductile foliation overprinted by fracturing and local brecciation.
VEINS/FRACTURES: 30%; up to 5 cm wide; Varies; Many veins with varying compositions, epidote in green veins and white calcite in large veins. Piece 2A is almost totally a wide vein with many included angular fragments. Pieces 2G-2K have a large vertical vein with abundant calcite. Red mineral in several large veins hematite and calcite).
ADDITIONAL COMMENTS: This unit continues into 149-900A-83R-2.

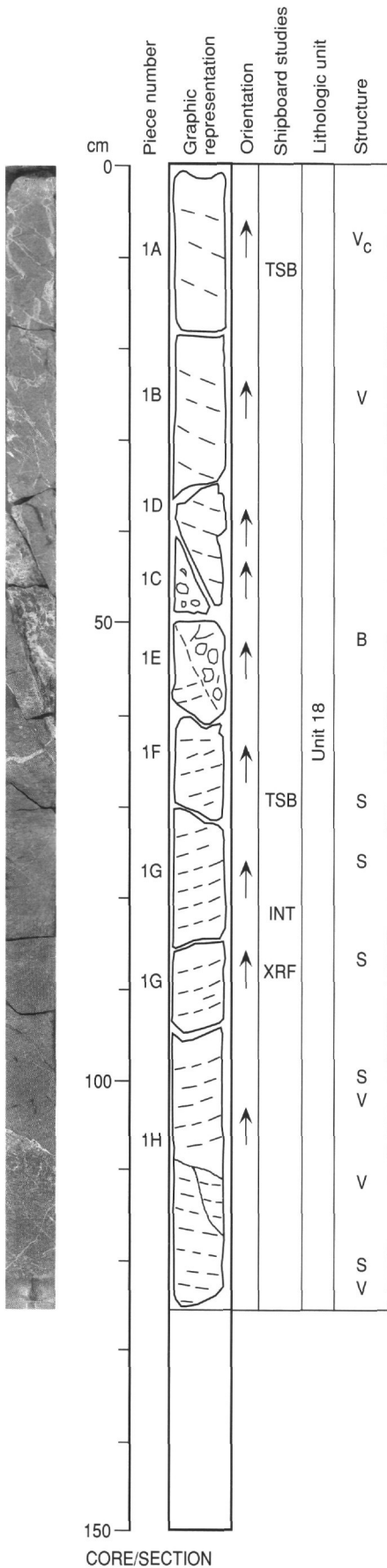


CORE/SECTION

UNIT 18: BRECCIATED FLASER GABBRO

Pieces 1A-1H

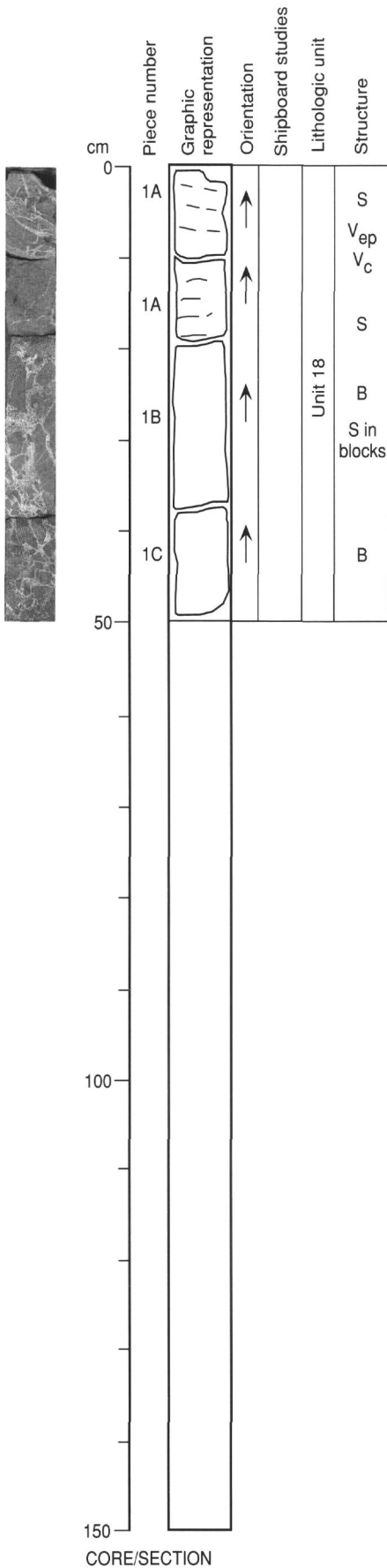
CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Chlorite and amphibole.
VESICLES: None.
COLOR: Grayish olive (10Y 4/2).
STRUCTURE: Foliation developed during a ductile shear deformation, overprinted by fracturing and locally brecciation.
VEINS/FRACTURES: 10%; up to 5 cm; variable; large vein with angular fragments from Pieces 1C through 1E into 1F. This vein is oriented off vertical and contains calcite and other cements.
ADDITIONAL COMMENTS: This unit continues into 149-900A-83R-3.



149-900A-83R-3

UNIT 18: BRECCIATED MAFIIC ROCK

Pieces 1A-1C



CONTACTS: None.

PHENOCRYSTS: None.

GROUNDMASS: Chlorite and amphibole?

VESICLES: None.

COLOR: Olive gray (5Y 3/2).

STRUCTURE: Foliation developed during a ductile shear deformation, overprinted by fracturing and brecciation.

VEINS/FRACTURES: 30%; up to 5 cm; variable; many veins with varying cementing material, including calcite. The large (up to 6 cm long) fragments are mixed with smaller fragments and most fragments are very angular.

ADDITIONAL COMMENTS: This unit continues from 149-900A-83R-2.

CORE/SECTION

UNIT 18: BRECCIATED MAFIC ROCK

Pieces 1-5E

CONTACTS: None.

PHENOCRYSTS: None.

GROUNDMASS: Chlorite and amphibole.

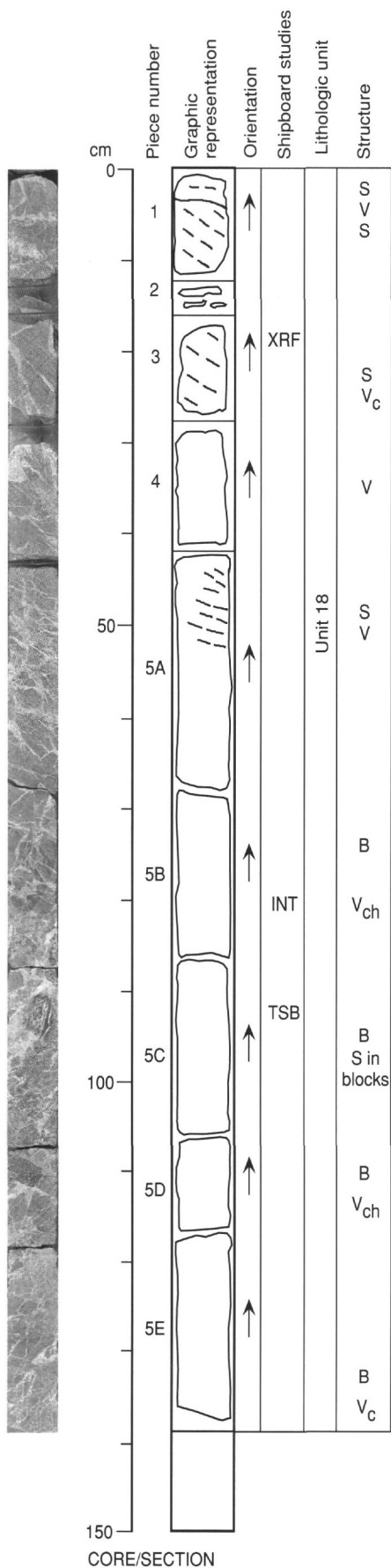
VESICLES: None.

COLOR: Olive gray (5Y 3/2).

STRUCTURE: Ductile foliation overprinted by fracturing and brecciation.

VEINS/FRACTURES: 30%; up to 3 cm; variable; several generations as usual. The last and widest veins contain calcite. Included fragments, even in small veins, can be angular. One large fragment consists of a lithology foreign to the core and other fragments.

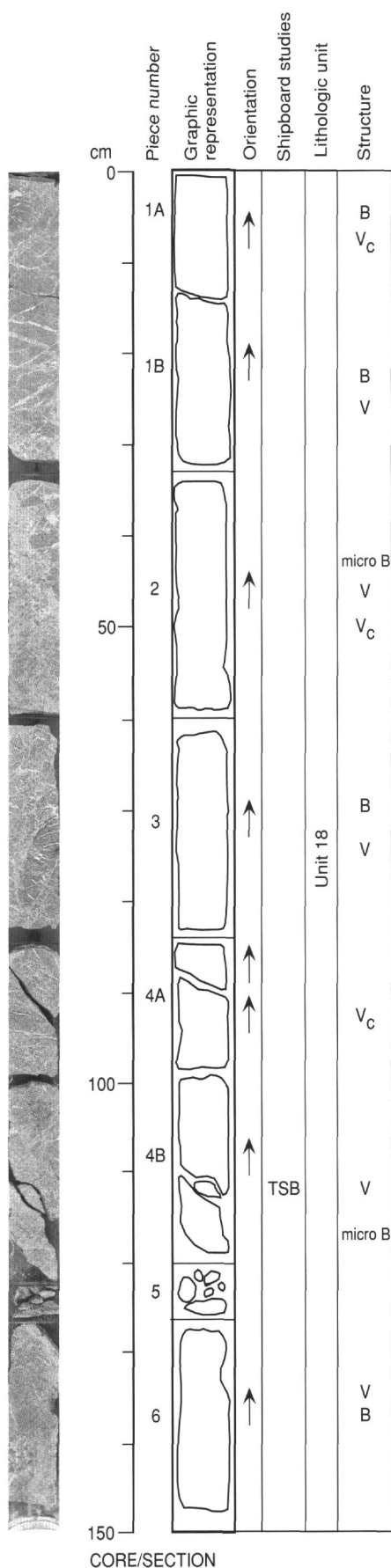
ADDITIONAL COMMENTS: This unit continues from 149-900A-83R-3 and into 149-900A-84R-2.



149-900A-84R-2

UNIT 18: BRECCIA OF METAMORPHOSED BASIC ROCK

Pieces 1A-6



CONTACTS: None.

PHENOCRYSTS: None.

GROUNDMASS: Plagioclase, chlorite and amphibole?

VESICLES: None.

COLOR: Light olive gray (5Y 5/2).

STRUCTURE: Ductile foliation overprinted by fracturing and brecciation.

VEINS/FRACTURES: 30%; up to 6 cm; variable; several generations of veins with a large late vein including fragments from earlier veins. Late veins have some calcite filling. At least one foreign fragment in a vein complex. Many of the early veins appear to be filled with green epidote.

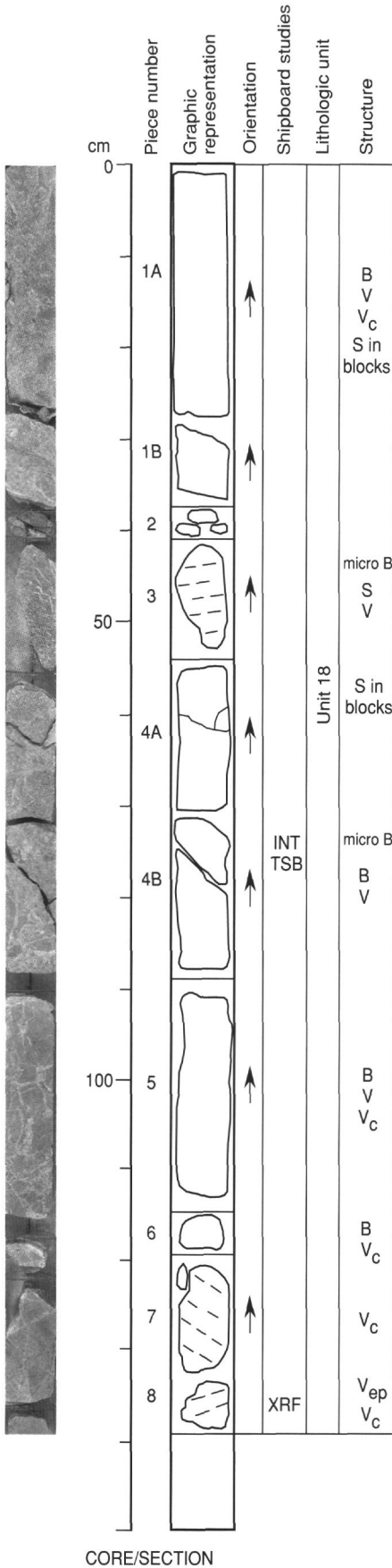
ADDITIONAL COMMENTS: This unit continues into 149-900A-84R-3.

CORE/SECTION

UNIT 18: BRECCIA OF METAMORPHOSED MAFIC ROCK

Pieces 1A-8

CONTACTS: None.
PHENOCRYSTS: None.
GROUNDMASS: Plagioclase, chlorite, and amphibole.
VESICLES: None.
COLOR: Grayish olive (10Y 4/2).
STRUCTURE: Ductile foliation overprinted by fracturing and brecciation.
VEINS/FRACTURES: 30%; up to 7 cm wide; variable; several generations of veins with angular to rounded fragments. Large green epidote vein in Pieces 1 and 4.
ADDITIONAL COMMENTS: This unit continues into 149-900A-84R-4.



CORE/SECTION