

149-897C-73R-4

UNIT 10: SERPENTINIZED PERIDOTITE

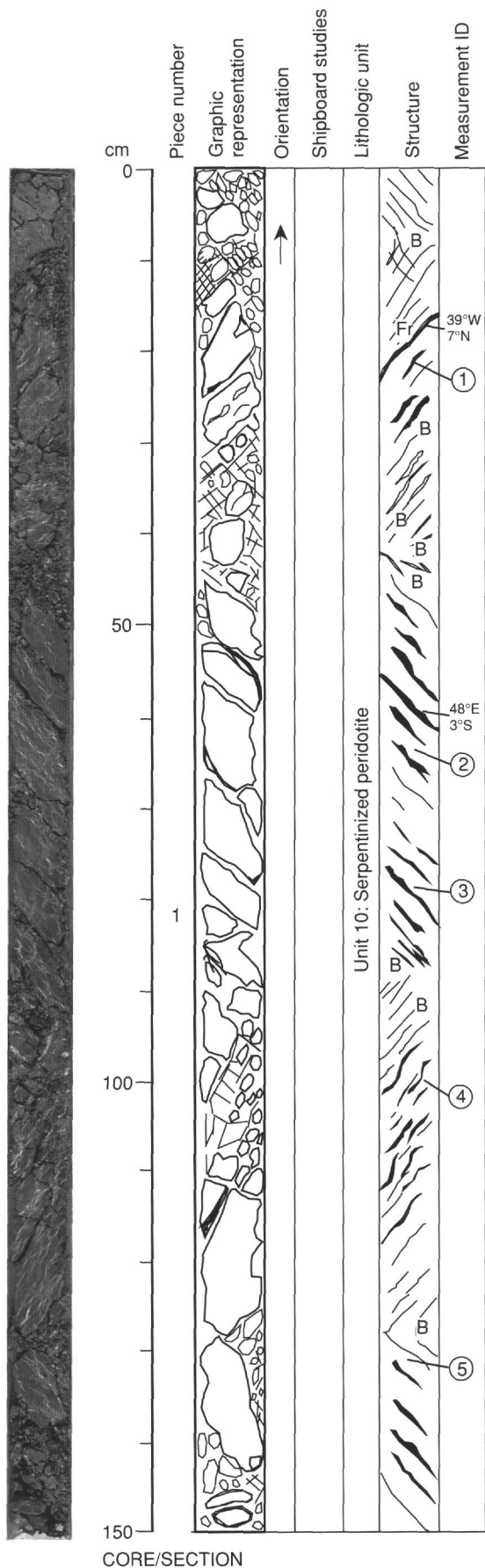
Piece 1

COLOR: Dark gray (N3).

LAYERING: No obvious primary layering.

DEFORMATION: No obvious ductile deformation. Later brittle deformation generated a fracture cleavage filled with serpentine.

ADDITIONAL COMMENTS: Unit continues from Section 149-897C-73R-1 through Section 149-897C-73R-3. Refer to uppermost part of this unit for description of primary and secondary mineralogy.

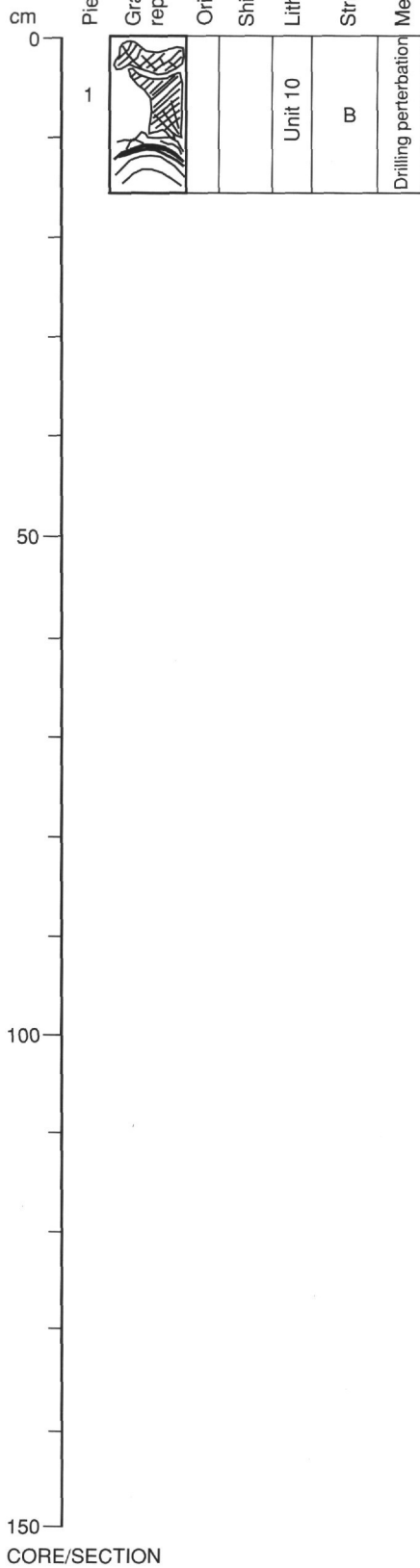
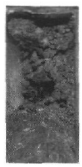


CORE/SECTION

UNIT 10: SERPENTINIZED PERIDOTITE

Piece 1

Drilling breccia.



149-897D-10R-1

UNIT 1A: SERPENTINIZED PERIDOTITE

Pieces 3 and 6

COLOR: Dark greenish gray (5GY 4/1).

LAYERING: None visible.

DEFORMATION: Piece 6 shows well-developed schistosity parallel to contact with sediments.

PRIMARY MINERALOGY: Primary minerals largely destroyed by serpentinization.

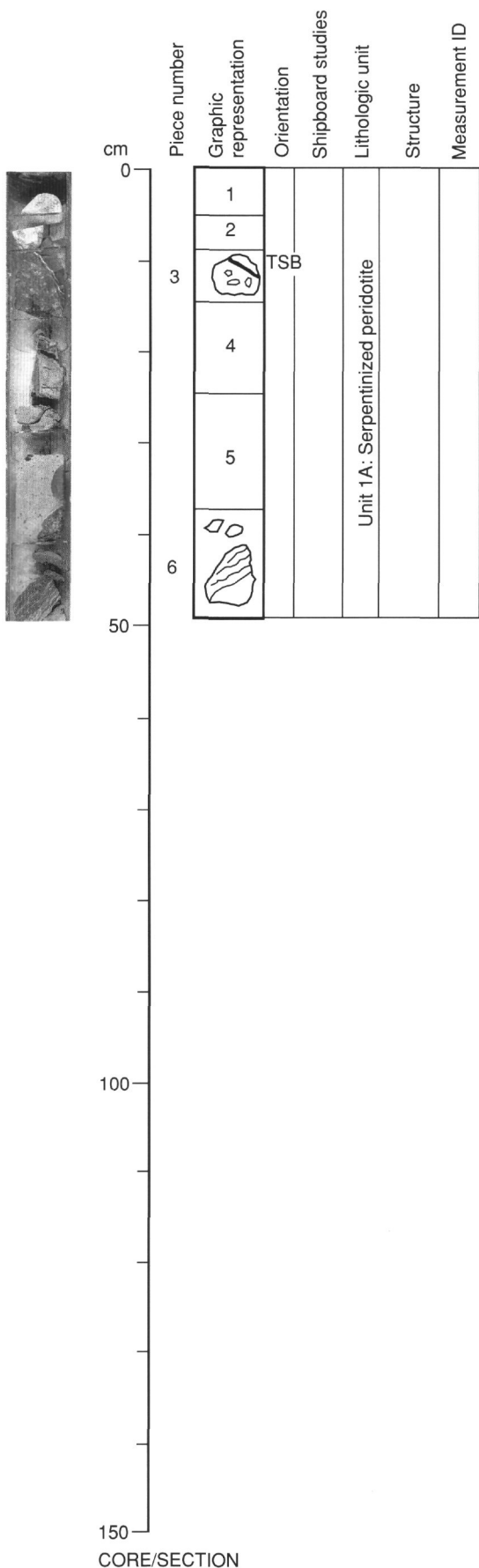
SECONDARY MINERALOGY:

Total percent: 100%(?).

Texture: Mesh serpentinite.

Vein material: Thin calcite veins.

ADDITIONAL COMMENTS: Pieces 3 and 6 are interpreted as pebbles within a larger unit (Unit 1) that also includes a large boulder (Sections 149-D-10R-2 and 149-D-10R-3).



UNIT 1B: SERPENTINIZED PERIDOTITE

Pieces 1A-10

COLOR: Dark gray (N3) to light bluish gray (5B 7/1).

LAYERING: No obvious layering.

DEFORMATION: Weakly foliated breccia, locally mylonitized (140-145 cm). Late brittle fractures filled with serpentine and calcite.

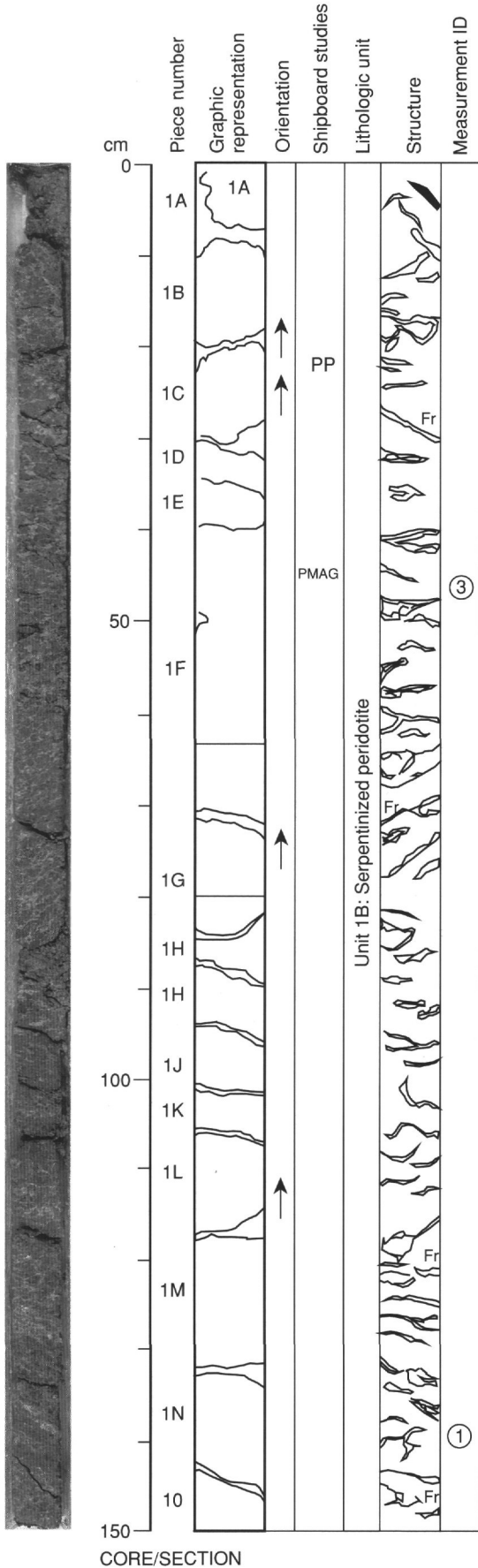
PRIMARY MINERALOGY:

- Olivine - Mode: ?
- Percent replacement: 100%.
- Pyroxene(s) - Mode: ?
- Percent replacement: 100%.
- Spinel - Mode: <1%.
- Crystal size: <1 mm.
- Crystal shape: Anhedral.
- Crystal orientation: None.
- Percent replacement: ?

SECONDARY MINERALOGY:

- Total percent: 100%.
- Texture: Deformed mesh serpentinite.
- Vein material: Foliation marked by light green serpentinite surrounding serpentinite blocks.

ADDITIONAL COMMENTS: Unit 1B is interpreted as a large serpentine boulder. Two small pebbles occur in Section 149-897D-10R-1. These are also included in Unit 1. Subunit 1B continues in Section 149-897D-10R-3

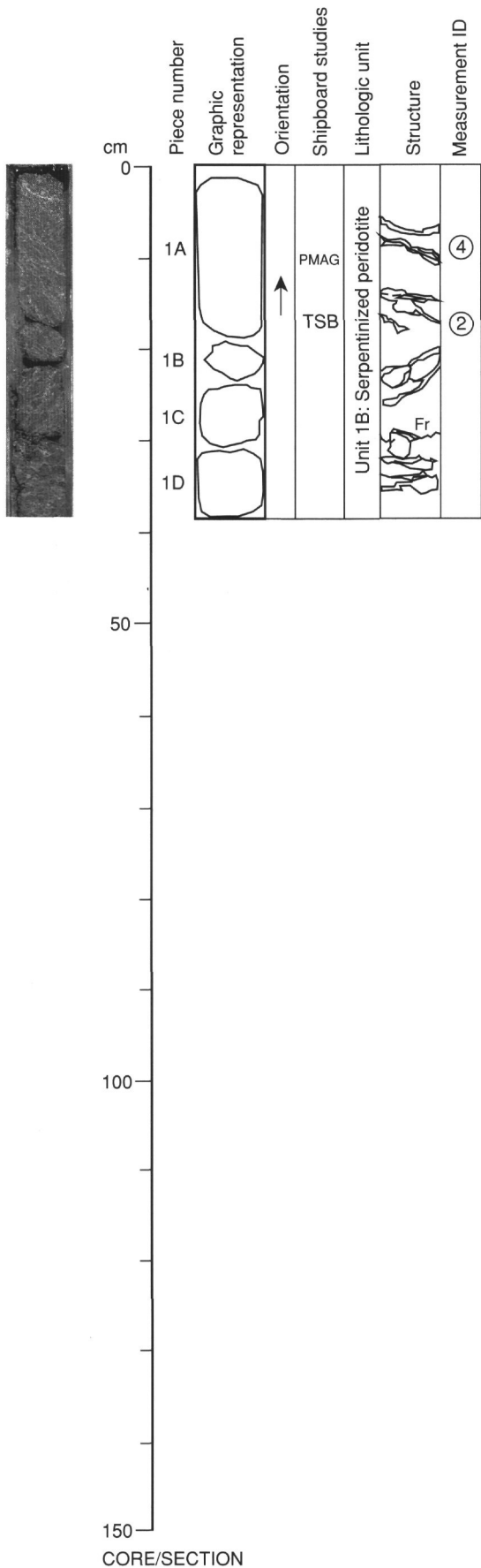


CORE/SECTION

149-897D-10R-3

UNIT 1B: SERPENTINIZED PERIDOTITE

Pieces 1A-1D



COLOR: Dark gray (N3) to light bluish gray (5B 7/1).

LAYERING: No obvious layering.

DEFORMATION: Weakly foliated breccia. Late brittle fractures filled with serpentine and calcite.

PRIMARY MINERALOGY:

- Olivine - Mode: ?
- Percent replacement: 100%.
- Pyroxene(s) - Mode: ?
- Percent replacement: 100%.
- Spinel - Mode: <1%.
- Crystal size: <1 mm.
- Crystal shape: Anhedral.
- Crystal orientation: None.
- Percent replacement: ?

SECONDARY MINERALOGY:

- Total percent: 100%.
- Texture: Deformed mesh serpentine.
- Vein material: Foliation marked by light green serpentine surrounding serpentine blocks.

ADDITIONAL COMMENTS: Unit continues from Section 149-897D-10R-2. Unit is interpreted as a large serpentine block in a sedimentary(?) unit, as this brecciated serpentine is separated from weakly or undeformed serpentine (Unit 2) by sediments.

149-897D-10R-CC

UNIT 2: ALTERED SERPENTINIZED PERIDOTITE

Piece 1-3

COLOR: Light brown (5YR 5/6) to yellowish gray (5Y 8/1).

LAYERING: No obvious layering.

DEFORMATION: No obvious ductile deformation. Late brittle deformation expressed as calcite-filled veins.

PRIMARY MINERALOGY:

Olivine - Mode: 80%-90%

Percent replacement: 100%.

Pyroxene - Mode: 15%-20%.

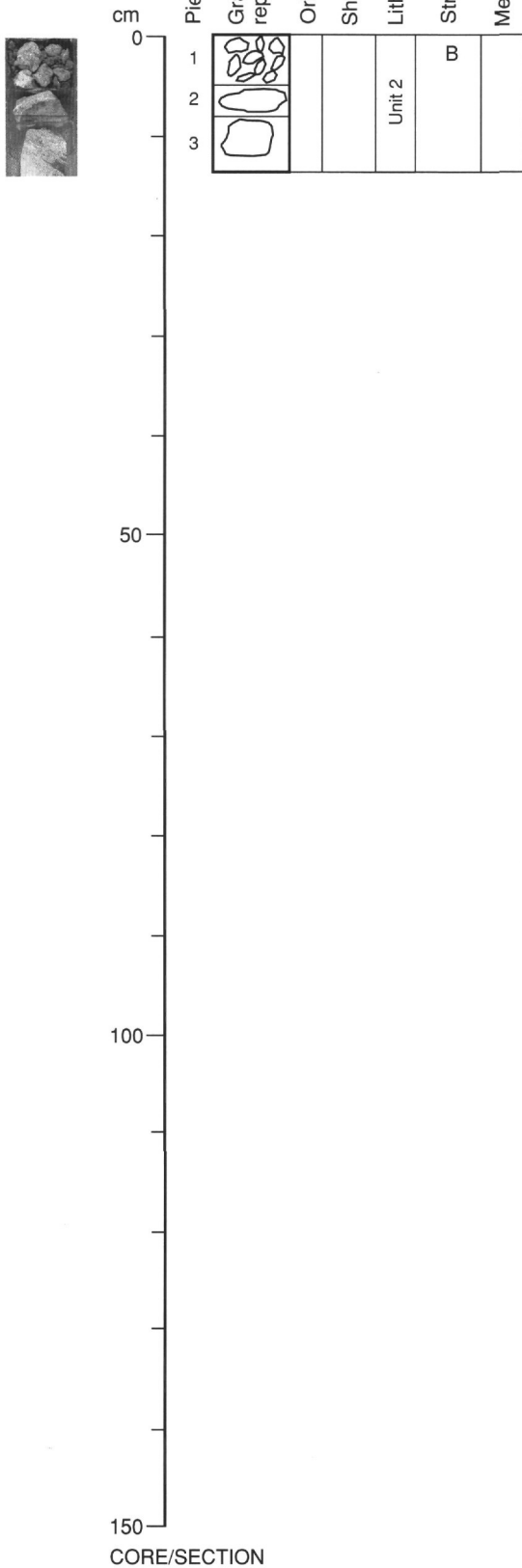
Spinel - Mode: 1%.

SECONDARY MINERALOGY: Yellow limonite(?) alteration superimposed on serpentinization.

Total percent: 99%.

Texture: Coarse-grained mesh serpentinite.

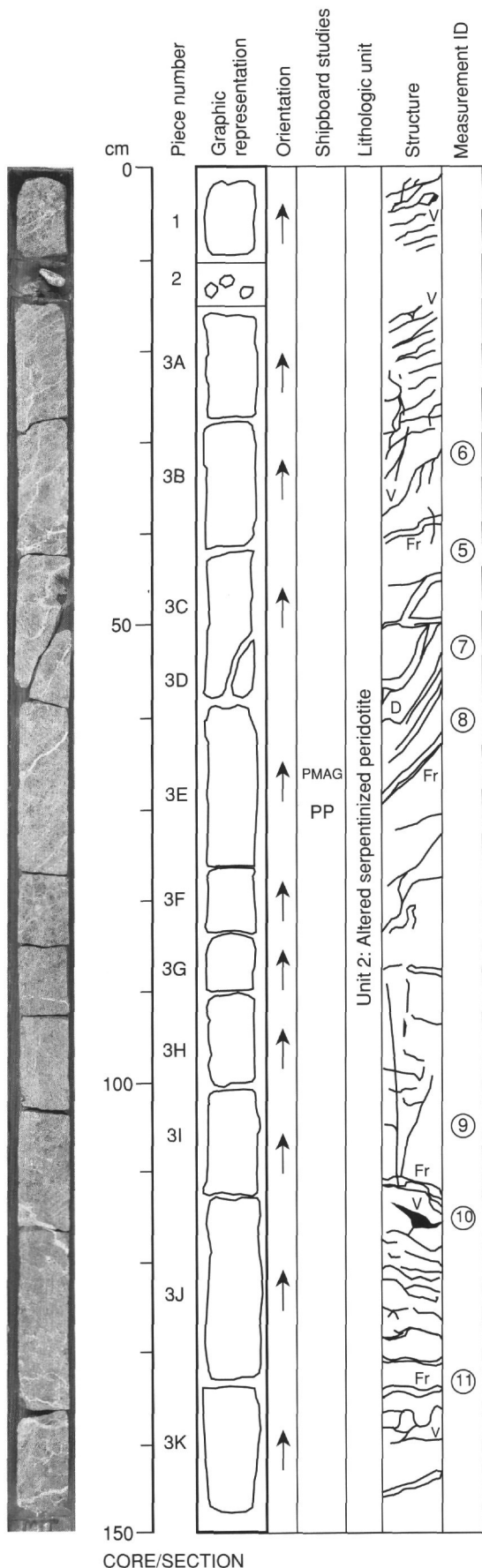
ADDITIONAL COMMENTS: Unit continues into Section 149-897D-15R-1. This is a zone of alteration at the top of the basement.



149-897D-11R-1

UNIT 2: ALTERED SERPENTINIZED PERIDOTITE

Pieces 1 to 3K

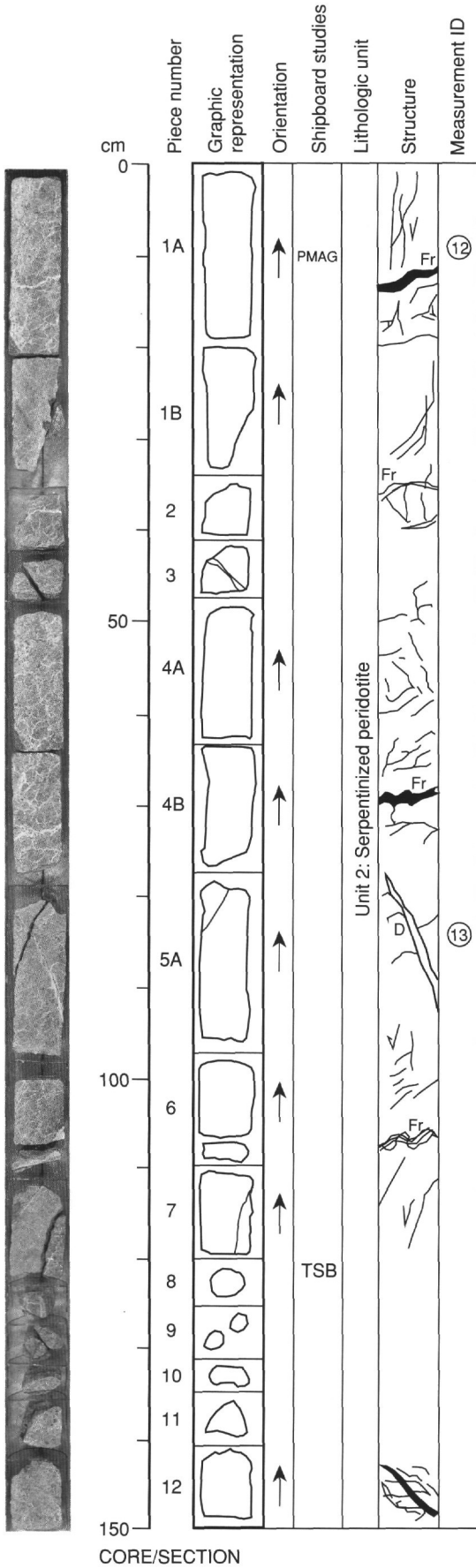


COLOR: Moderate yellowish brown (10YR 4/4) to dark yellowish orange (10YR 6/6).
LAYERING: No obvious layering.
DEFORMATION: No obvious ductile deformation. Late brittle deformation which developed fractures filled with calcite.
PRIMARY MINERALOGY: Some variation in pyroxene percentage along the three pieces. Interval is pyroxene-rich in Pieces 1A to 3A and 3J to 3K.
 Olivine - Mode: 75%.
 Percent replacement: 100%.
 Pyroxene - Mode: 24%.
 Crystal size: 5–10 mm.
 Crystal shape: ?
 Crystal orientation: None.
 Percent replacement: >85%.
 Spinel - Mode: 1%.
 Crystal size: 1–3 mm.
 Crystal shape: Subhedral to anhedral.
 Crystal orientation: None.
 Percent replacement: ?
SECONDARY MINERALOGY: Yellow limonite(?) alteration superimposed on serpentinization.
 Total percent: 99%.
 Texture: Coarse-grained mesh serpentinite.
 Vein material: Calcite and some serpentinite veins.
ADDITIONAL COMMENTS: No obvious plagioclase, but it may be obscured by pervasive alteration. Some 1–10 mm veinlets of pyroxenite are present but they are almost completely serpentinized and replaced by calcite. Unit continues into Section 149-897D-15R-2. This is a zone of alteration at the top of the basement.

149-897D-11R-2

UNIT 2: ALTERED SERPENTINIZED PERIDOTITE

Pieces 1A to 12



COLOR: Moderate yellowish brown (10YR 5/4) to dark yellowish orange (10YR 6/6).

LAYERING: No obvious layering.

DEFORMATION: No obvious ductile deformation. Late brittle deformation expressed as fractures filled with calcite.

SECONDARY MINERALOGY: Yellow limonite(?) alteration superimposed on serpentinization.

ADDITIONAL COMMENTS: Unit continued from Section 149-897D-11R-1. Refer to description of that section for primary and secondary mineralogy. Some primary veinlets, 1–10 mm thick, of pyroxenite, now completely serpentinized and altered to calcite. Unit continues into Section 149-897D-11R-3. This unit is a zone of alteration at the top of the basement.

149-897D-11R-3

UNIT 2: ALTERED SERPENTINIZED PERIDOTITE

Pieces 1A to 11

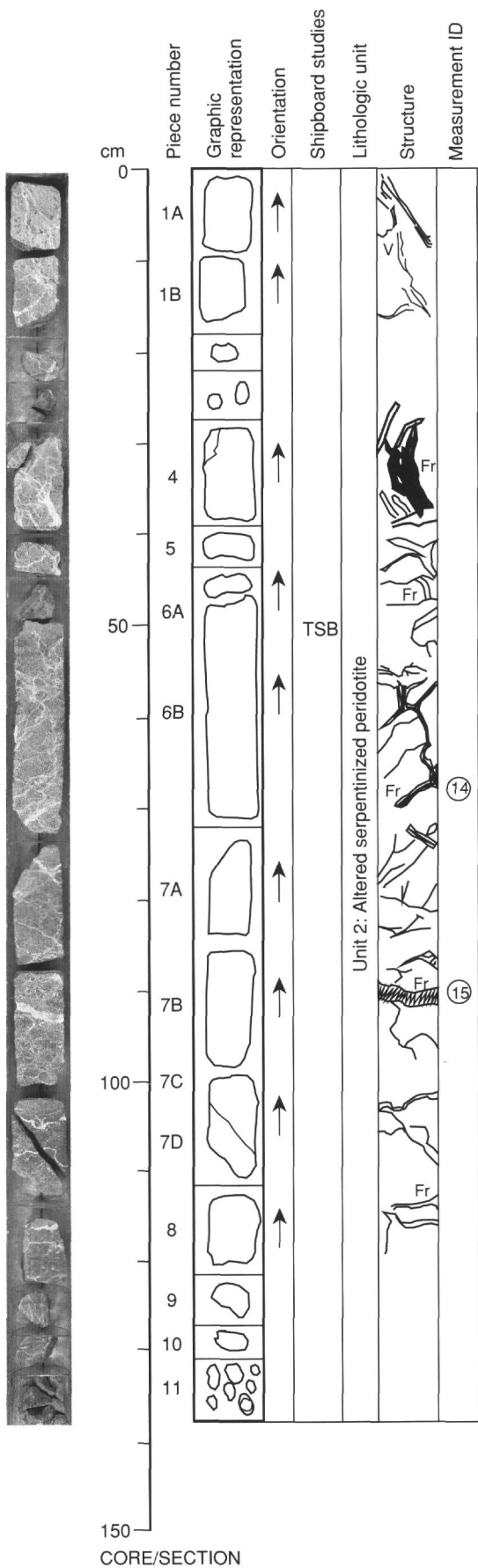
COLOR: Moderate yellowish brown (10YR 5/4) to dark yellowish orange (10YR 6/6).

LAYERING: No obvious layering.

DEFORMATION: No obvious ductile deformation. Late brittle deformation expressed as fractures filled with calcite.

SECONDARY MINERALOGY: Yellow limonite(?) alteration superimposed on serpentinization.

ADDITIONAL COMMENTS: Unit continues from Section 149-897D-11R-1. Refer to description of that section for primary and secondary mineralogy. Unit continues into Section 149-897D-15R-2. This is a zone of alteration at the top of the basement.



149-897D-11R-4

UNIT 2: ALTERED SERPENTINIZED PERIDOTITE

Pieces 1 to 6B

COLOR: Moderate yellowish brown (10YR 5/4) to dark yellowish orange (10YR 6/6).

LAYERING: No obvious layering.

DEFORMATION: No obvious ductile deformation. Late brittle deformation expressed as fractures filled with calcite.

SECONDARY MINERALOGY: Yellow limonite(?). Alteration superimposed on serpentinization.

ADDITIONAL COMMENTS: Unit continued from Section 149-897D-11R-3. Refer to description of uppermost unit for primary and secondary mineralogy. Unit continues into Section 149-897D-12R-1. This is a zone of alteration at the top of the basement.

