

149-897D-24R-3

UNIT 21: HETEROGENEOUS SERPENTINIZED PERIDOTITE

Pieces 1 to 2C

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

LAYERING: No obvious layering.

DEFORMATION: No obvious ductile deformation. Late brittle deformation defined by nearly vertical serpentine filled fractures.

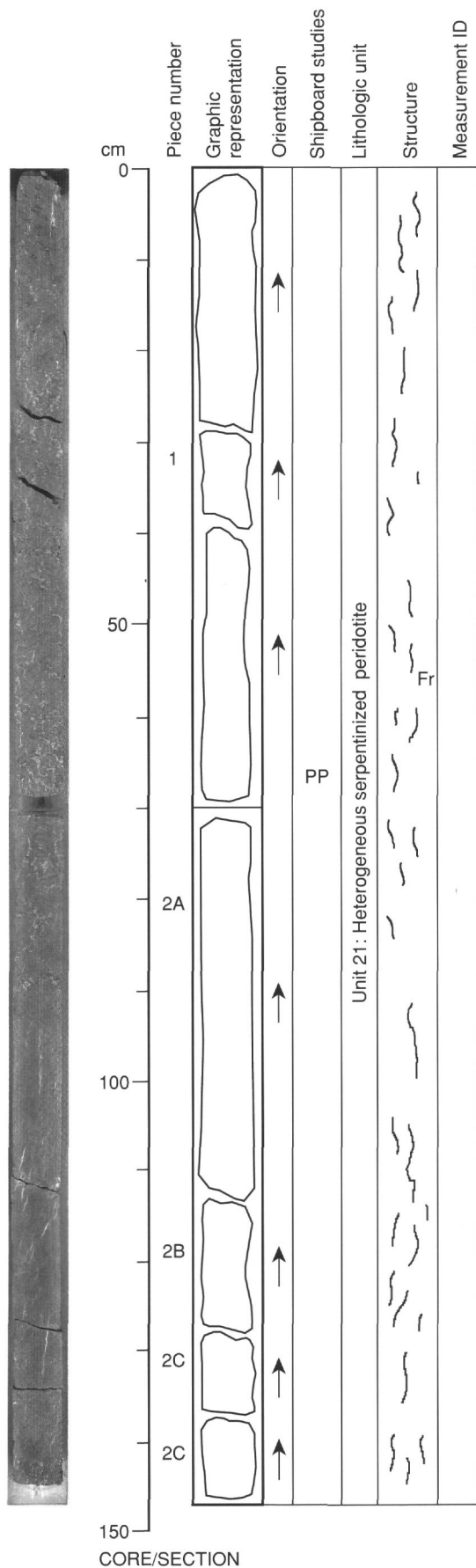
PRIMARY MINERALOGY: Pyroxenes are weakly aligned. Pieces 2A-2C are dunite.

- Olivine - Mode: 85%.
 Crystal size: ?.
 Crystal shape: ?.
 Crystal orientation: None.
 Percent replacement: 100%.
- Pyroxene(s) - Mode: 15%.
 Crystal size: 0.2-1 cm.
 Crystal shape: Anhedral.
 Crystal orientation: None.
 Percent replacement: 100%.
- Spinel - Mode: <1%.
 Crystal size: <0.1 cm.
 Crystal shape: Anhedral.
 Crystal orientation: None.
 Percent replacement: ?%.

SECONDARY MINERALOGY: Secondary serpentinite has largely obscured primary mineralogy.

- Total percent: >95%.
- Texture: Mesh serpentinite.

ADDITIONAL COMMENTS: Unit continues from Section 149-897D-23R-2 to Section 149-897D-25R-6.

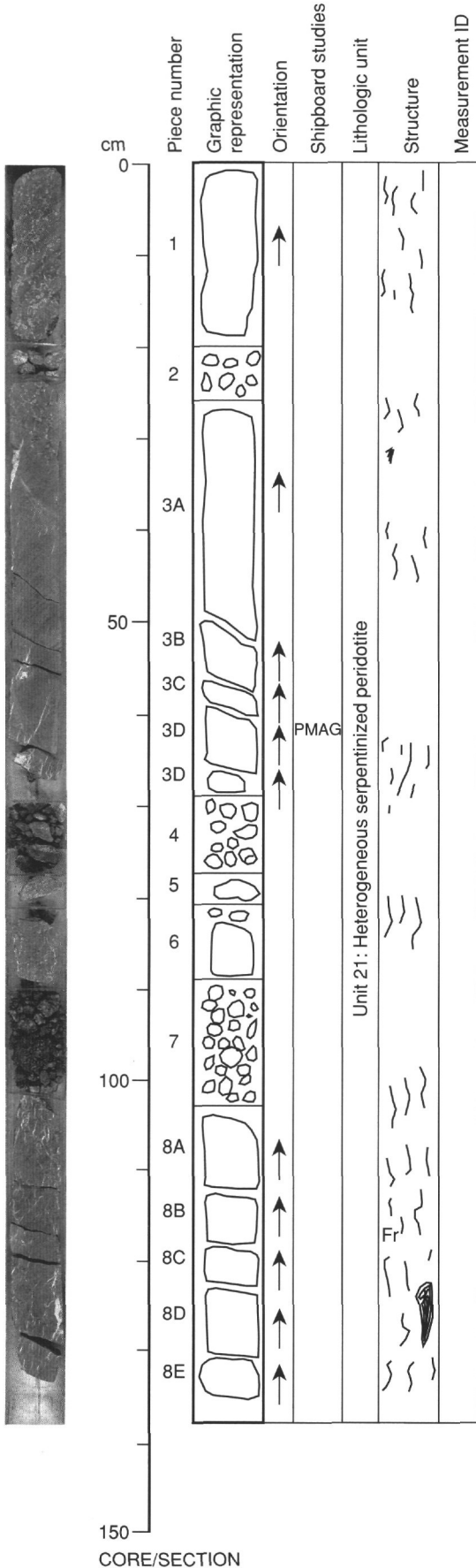


CORE/SECTION

UNIT 21: HETEROGENEOUS SERPENTINIZED PERIDOTITE

Pieces 1 to 8E

COLOR: Medium dark gray (N4).
LAYERING: No obvious layering.
DEFORMATION: No obvious ductile deformation. Late brittle deformation defined by nearly vertical serpentine filled fractures.
PRIMARY MINERALOGY: Pyroxenes are weakly aligned.
 Olivine - Mode: 85%.
 Crystal size: ?.
 Crystal shape: ?.
 Crystal orientation: None.
 Percent replacement: 100%.
 Pyroxene(s) - Mode: 15%.
 Crystal size: 0.2-1 cm.
 Crystal shape: Anhedral.
 Crystal orientation: None.
 Percent replacement: ?.
 Spinel - Mode: <1%.
 Crystal size: <0.1 cm.
 Crystal shape: Anhedral.
 Crystal orientation: None.
 Percent replacement: 0%.
SECONDARY MINERALOGY: Secondary serpentinite has largely obscured primary mineralogy.
 Total percent: >95%.
 Texture: Mesh serpentinite.
ADDITIONAL COMMENTS: Unit continues from Section 149-897D-23R-2 to Section 149-897D-25R-6.



149-897D-24R-5

UNIT 21: HETEROGENEOUS SERPENTINIZED PERIDOTITE

Pieces 1 to 4

COLOR: Dark gray (N3) to dark greenish gray (5GY 4/1).

LAYERING: Weak primary layering marked by bands of aligned pyroxene.

DEFORMATION: No obvious ductile deformation. Late brittle deformation defined by serpentine filled fractures.

PRIMARY MINERALOGY: Weak alignment of elongated spinels.

Olivine - Mode: 85%.

Crystal size: ? .

Crystal shape: ?.

Crystal orientation: None.

Percent replacement: 100%.

Pyroxene(s) - Mode: 15%.

Crystal size: 0.2-1 cm.

Crystal shape: Anhedral.

Crystal orientation: None.

Percent replacement: ?.

Spinel - Mode: <1%.

Crystal size: <0.1 cm.

Crystal shape: Anhedral.

Crystal orientation: Weak alignment.

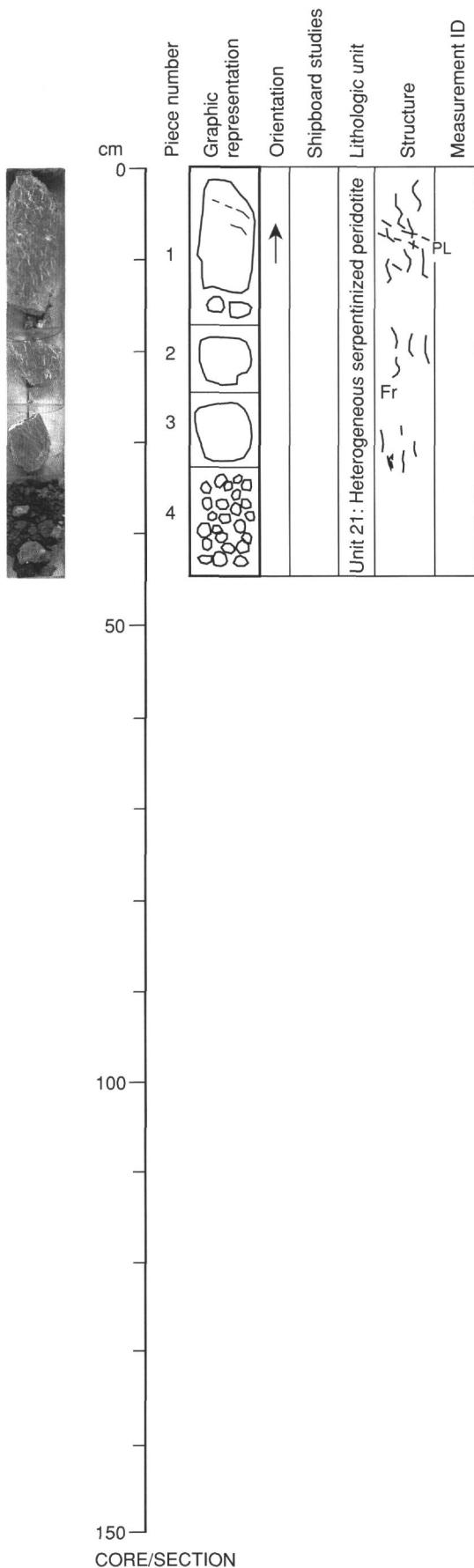
Percent replacement: 0%.

SECONDARY MINERALOGY: Secondary serpentinite has largely obscured primary mineralogy.

Total percent: 100%.

Texture: Mesh serpentinite,

ADDITIONAL COMMENTS: Unit continues from Section 149-897D-23R-2 to Section 149-897D-25R-6.



UNIT 21: HETEROGENEOUS SERPENTINIZED PERIDOTITE

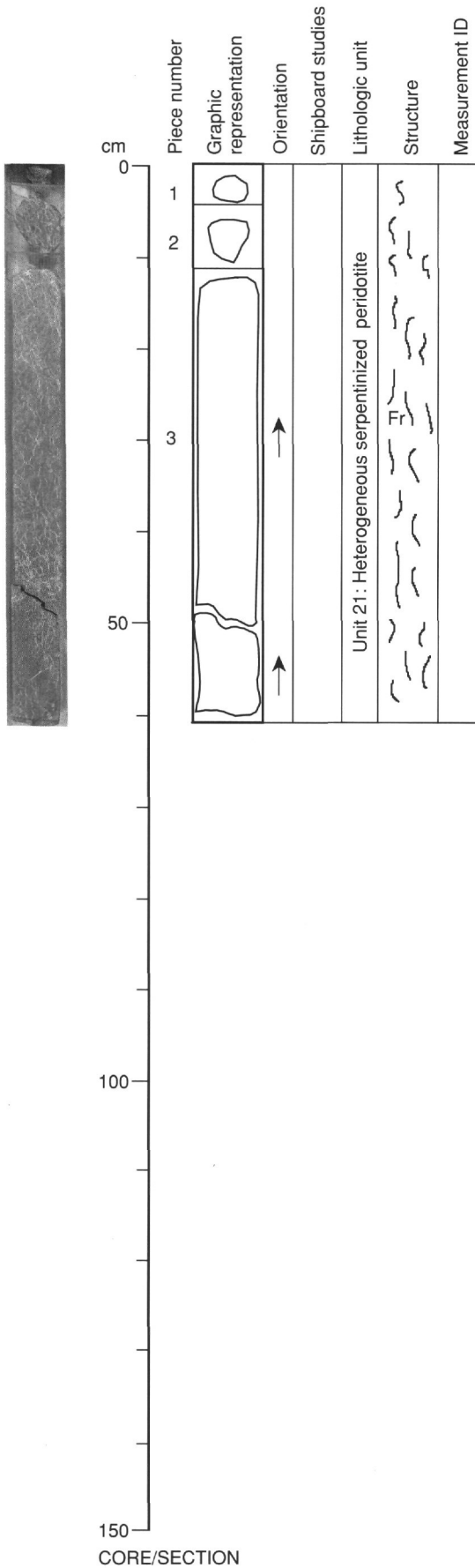
Pieces 1 to 3

COLOR: Medium dark gray (N4).
LAYERING: No obvious layering.
DEFORMATION: No obvious ductile deformation. Late brittle deformation defined by nearly vertical serpentine filled fractures.

PRIMARY MINERALOGY:
 Olivine - Mode: 85%.
 Crystal size: ?.
 Crystal shape: ?.
 Crystal orientation: None.
 Percent replacement: 100%.
 Pyroxene(s) - Mode: 15%.
 Crystal size: 0.2–1 cm .
 Crystal shape: Anhedral.
 Crystal orientation: None.
 Percent replacement: ?%.
 Spinel - Mode: <1%.
 Crystal size: <0.1 cm.
 Crystal shape: Anhedral.
 Crystal orientation: None.
 Percent replacement: ?%.

SECONDARY MINERALOGY: Secondary serpentinite has largely obscured primary mineralogy.
 Total percent: >95%.
 Texture: Mesh serpentinite.

ADDITIONAL COMMENTS: Unit continues from Section 149-897D-23R-2 to Section 149-897D-25R-6.



149-897D-25R-2

UNIT 21: HETEROGENEOUS SERPENTINIZED PERIDOTITE

Pieces 1A to 1F

COLOR: Dark gray (N3).

LAYERING: No obvious layering.

DEFORMATION: No obvious ductile deformation. Late brittle deformation defined by serpentine filled fractures.

PRIMARY MINERALOGY: Pieces 1A (6–12 cm) and 1B (24–32 cm) are dunite.

Olivine - Mode: 80%–99%.

Crystal size: ?.

Crystal shape: ?.

Crystal orientation: ?.

Percent replacement: 100%.

Pyroxene(s) - Mode: 0 %–20%.

Crystal size: 0.2–1 cm.

Crystal shape: Anhedral.

Crystal orientation: None.

Percent replacement: ?.

Spinel - Mode: <1%.

Crystal size: <0.1 cm.

Crystal shape: Anhedral.

Crystal orientation: None.

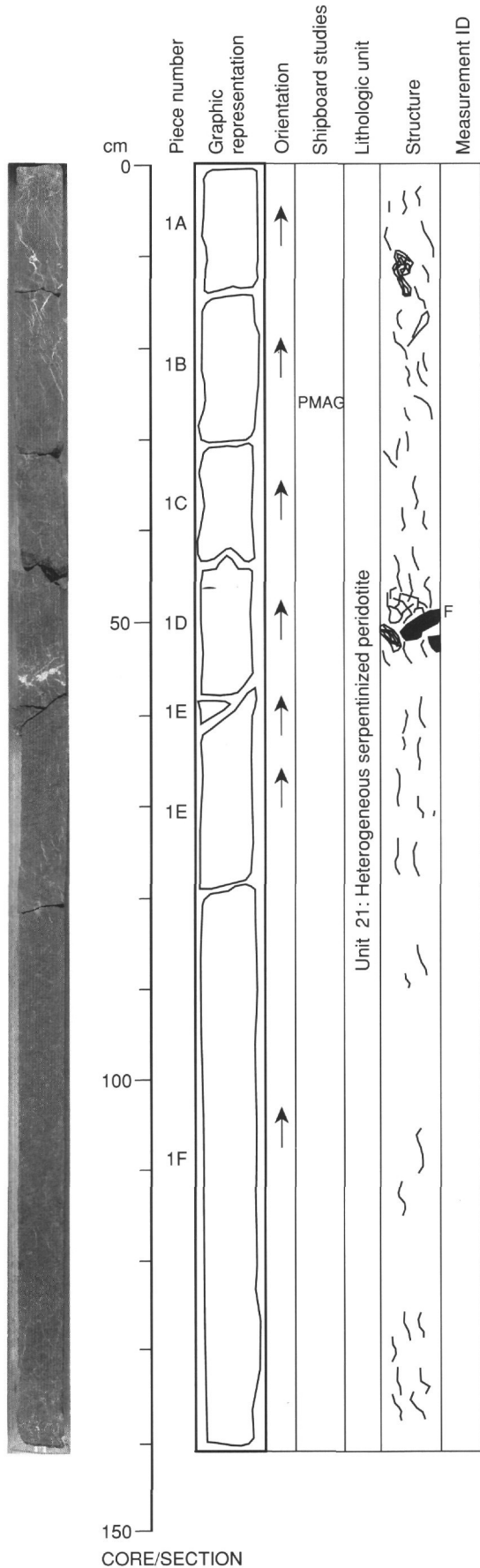
Percent replacement: 0%.

SECONDARY MINERALOGY: Secondary serpentinite has largely obscured primary mineralogy.

Total percent: >95%.

Texture: Mesh serpentinite.

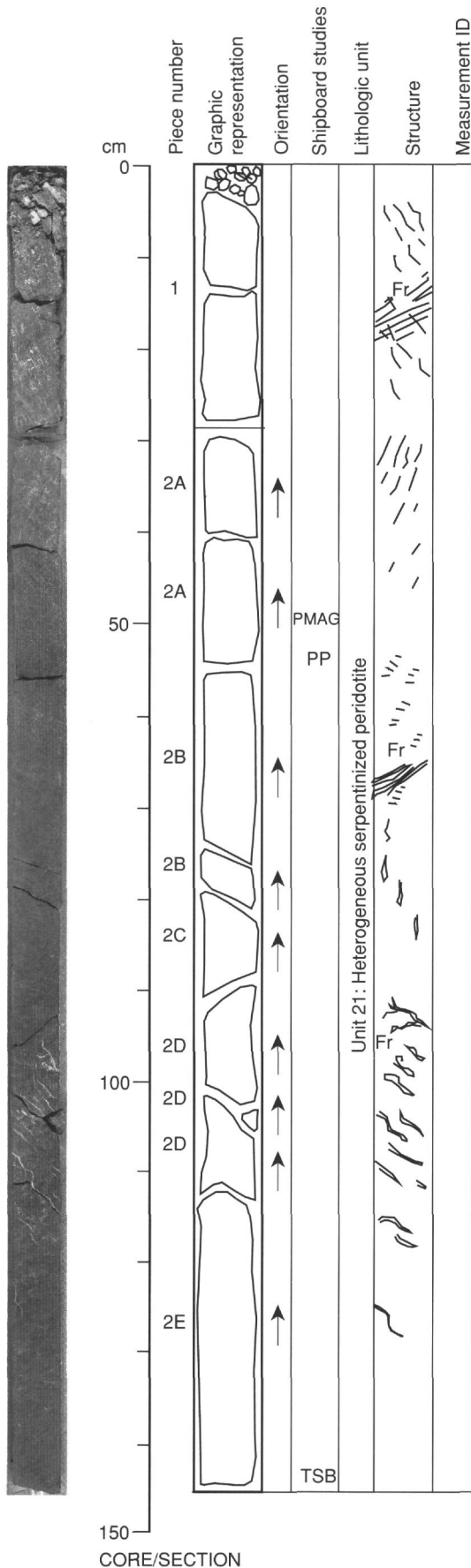
ADDITIONAL COMMENTS: Unit continues from Section 149-897D-23R-2 to Section 149-897D-25R-6.



UNIT 21: HETEROGENEOUS SERPENTINIZED PERIDOTITE

Pieces 1 to 2E

COLOR: Dark gray (N3).
LAYERING: No obvious layering.
DEFORMATION: No obvious ductile deformation. Late brittle deformation defined by serpentine filled fractures. Cold deformation is intense in Piece 1 forming both penetrative schistosity and fracture cleavage.
PRIMARY MINERALOGY: Pyroxenes are elongated being 0.2 to 0.5 cm wide and 1 to 2 cm long. They are cut by parallel serpentine veins that terminate at grain boundaries with olivine. Piece 2D (70–80 cm) is very poor in pyroxene.
 Olivine - Mode: 80%– 95%.
 Crystal size: ?.
 Crystal shape: ?.
 Crystal orientation: None.
 Percent replacement: 100%.
 Pyroxene(s) - Mode: 5 %–20%.
 Crystal size: 0.2–2 cm.
 Crystal shape: Anhedral.
 Crystal orientation: None.
 Percent replacement: ?.
 Spinel - Mode: <1%.
 Crystal size: <0.1 cm.
 Crystal shape: Anhedral.
 Crystal orientation: None.
 Percent replacement: 0%.
SECONDARY MINERALOGY: Secondary serpentinite has largely obscured primary mineralogy.
 Total percent: >95%.
 Texture: Mesh serpentinite.
 Vein material: Short serpentine veins concentrate in pyroxenes.
ADDITIONAL COMMENTS: Unit continues from Section 149-897D-23R-2 to Section 149-897D-25R-6.

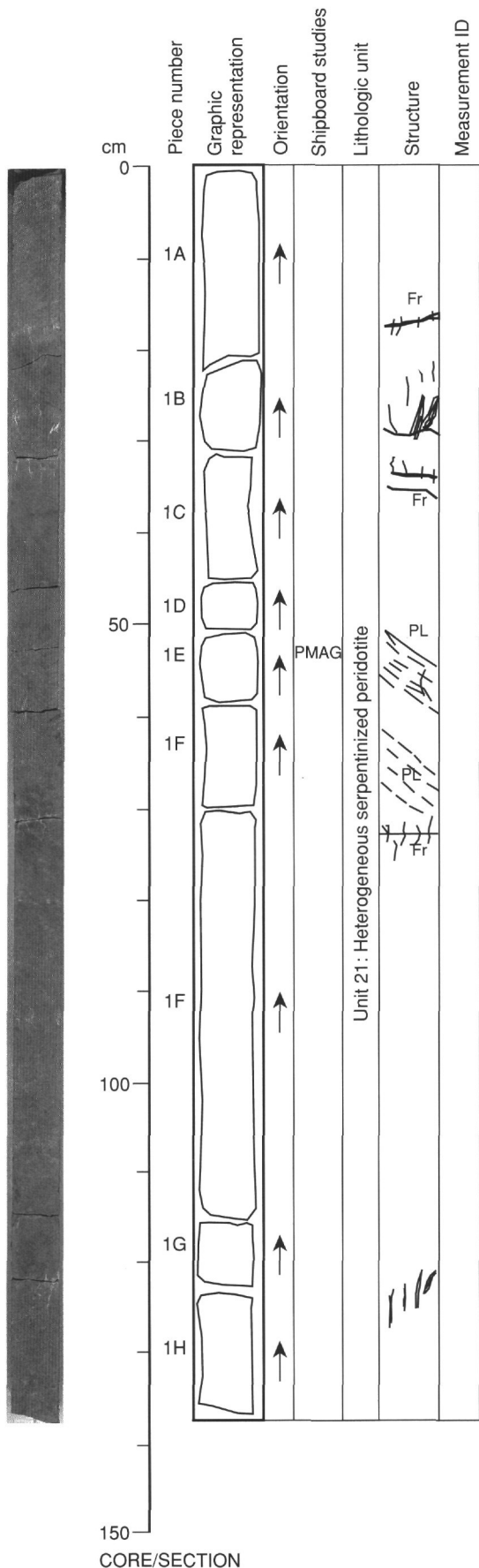


149-897D-25R-4

UNIT 21: HETEROGENEOUS SERPENTINIZED PERIDOTITE

Pieces 1A to 1H

COLOR: Dark gray (N3).
LAYERING: Primary layering marked by bands of aligned pyroxene crystals.
DEFORMATION: No obvious ductile deformation. Late brittle deformation defined by serpentine filled fractures.
PRIMARY MINERALOGY: Pyroxenes are elongated being 0.2 to 0.5 cm wide and near 1 cm long. Pyroxene is not homogeneously distributed. Pieces 1B-1D (20-52 cm), Pieces 1E-1F (59-68 cm), and Piece 1G (118-126 cm) are dunite.
 Olivine - Mode: 80 %-99%.
 Crystal size: ?.
 Crystal shape: ?.
 Crystal orientation: ?.
 Percent replacement: 100%.
 Pyroxene(s) - Mode: 0 %-20%.
 Crystal size: 0.2-1 cm.
 Crystal shape: Anhedral.
 Crystal orientation: None.
 Percent replacement: ?.
 Spinel - Mode: <1%.
 Crystal size: <0.1 cm.
 Crystal shape: Anhedral.
 Crystal orientation: None.
 Percent replacement: 0%.
SECONDARY MINERALOGY: Secondary serpentinite has largely obscured primary mineralogy.
 Total percent: >95%.
 Texture: Mesh serpentinite.
 Vein material: Short serpentine veins concentrate in pyroxenes.
ADDITIONAL COMMENTS: Unit continues from Section 149-897D-23R-2 to Section 149-897D-25R-6.



UNIT 21: HETEROGENEOUS SERPENTINIZED PERIDOTITE

Pieces 1A to 1C

COLOR: Dark gray (N3).

LAYERING: No obvious layering.

DEFORMATION: No obvious ductile deformation. Late brittle deformation defined by serpentine filled fractures. The lower two pieces of Piece 1C have split along fibrous serpentine slickensides.

PRIMARY MINERALOGY: Pyroxenes are elongated being 0.2 to 0.5 cm wide and 1 to 2 cm long.

Pieces 1B-1C (55-90 cm) are pyroxene poor.

Olivine - Mode: 80 %-90%.

Crystal size: ?.

Crystal shape: ?.

Crystal orientation: ?.

Percent replacement: 100%.

Pyroxene(s) - Mode: 10 %-20%.

Crystal size: 0.2-2 cm.

Crystal shape: Anhedral.

Crystal orientation: None.

Percent replacement: ?.

Spinel - Mode: <1%.

Crystal size: <0.1 cm.

Crystal shape: Anhedral.

Crystal orientation: None.

Percent replacement: ?.

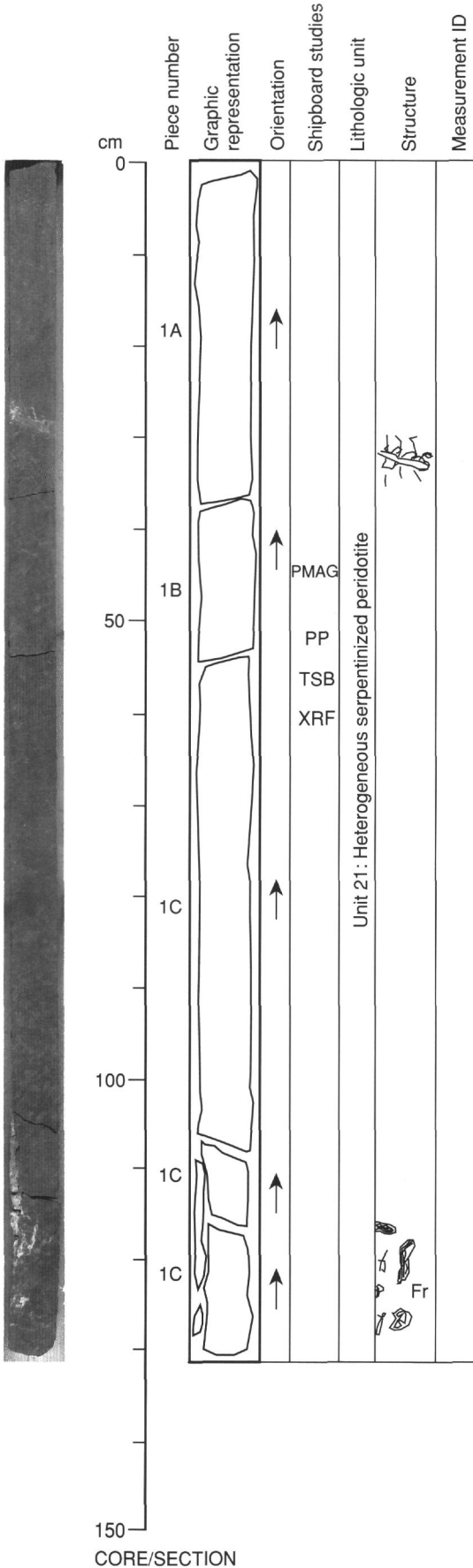
SECONDARY MINERALOGY: Secondary serpentinite has largely obscured primary mineralogy.

Total percent: >95%.

Texture: Mesh serpentinite

Vein material: A few short thin serpentine veins.

ADDITIONAL COMMENTS: Unit continues from Section 149-897D-23R-2 to Section 149-897D-25R-6.



149-897D-25R-6

UNIT 21: HETEROGENEOUS SERPENTINIZED PERIDOTITE

Pieces 1 to 3

COLOR: Dark gray (N3).
LAYERING: No obvious layering.
DEFORMATION: No obvious ductile deformation. Late thin fractures filled with serpentine.
PRIMARY MINERALOGY: Pyroxenes are elongated being 0.2 to 0.5 cm wide and up to 1 cm long.
 Olivine - Mode: 80%.
 Crystal size: ?.
 Crystal shape: ?.
 Crystal orientation: ?.
 Percent replacement: 100%.
 Pyroxene(s) - Mode: 20%.
 Crystal size: 0.2-1 cm.
 Crystal shape: Anhedral.
 Crystal orientation: None.
 Percent replacement: ?.
 Spinel - Mode: <1%.
 Crystal size: <0.1 cm.
 Crystal shape: Anhedral.
 Crystal orientation: None.
 Percent replacement: 0%.

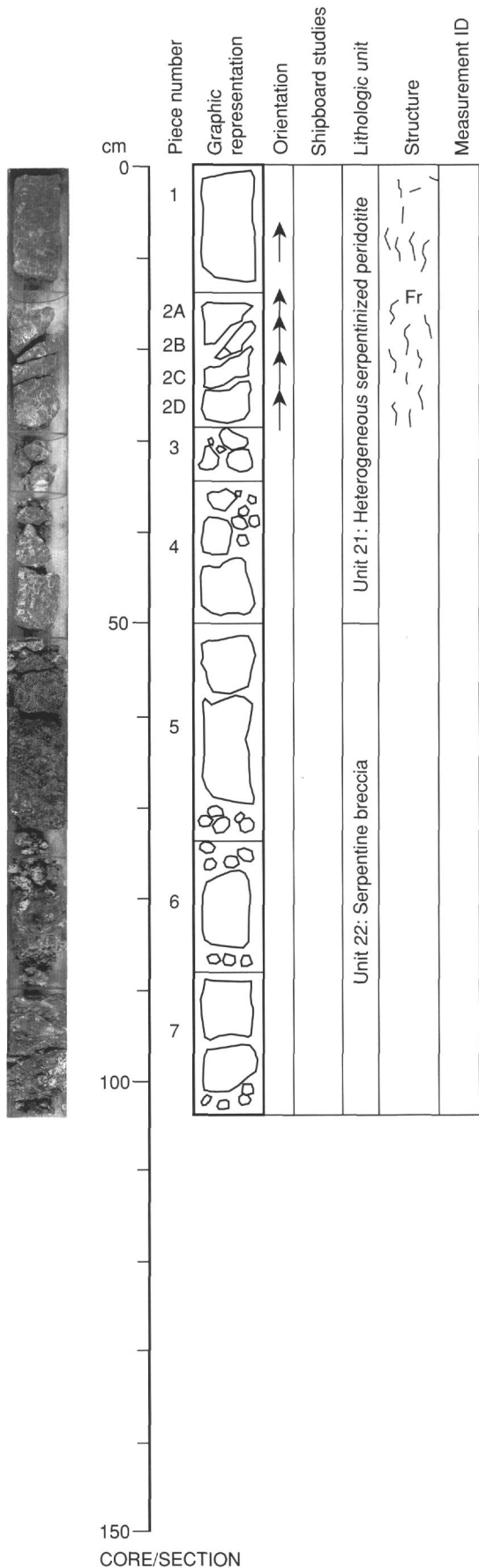
SECONDARY MINERALOGY: Secondary serpentinite has largely obscured primary mineralogy.
 Total percent: 99%.
 Texture: Mesh serpentinite.

ADDITIONAL COMMENTS: Unit continues from Section 149-897D-23R-2.

UNIT 22: SERPENTINE BRECCIA

Pieces 4-7

COLOR: Dark gray (N3).
LAYERING: No obvious layering.
DEFORMATION: This is a breccia.
PRIMARY MINERALOGY:
SECONDARY MINERALOGY: Secondary serpentinization and brecciation has obscured the primary mineralogy.
 Total percent: 100%.
 Texture: Breccia.



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CORE/SECTION