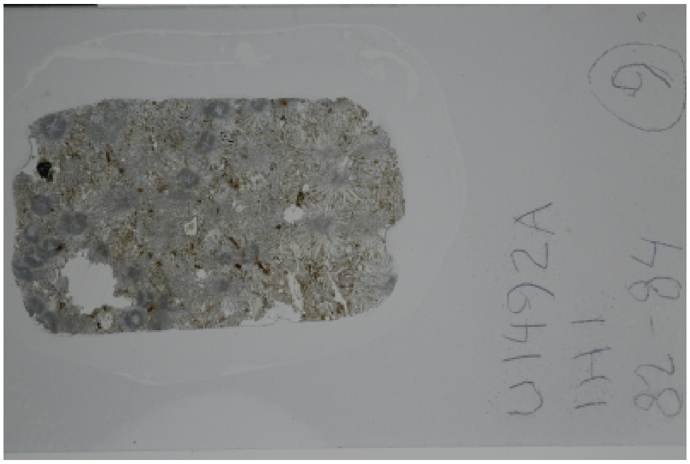
THIN SECTION LABEL ID: **366-U1492A-1H-1-W 82/84-TSB-TS_09**

TS no.: 9

Thin Section Summary Description

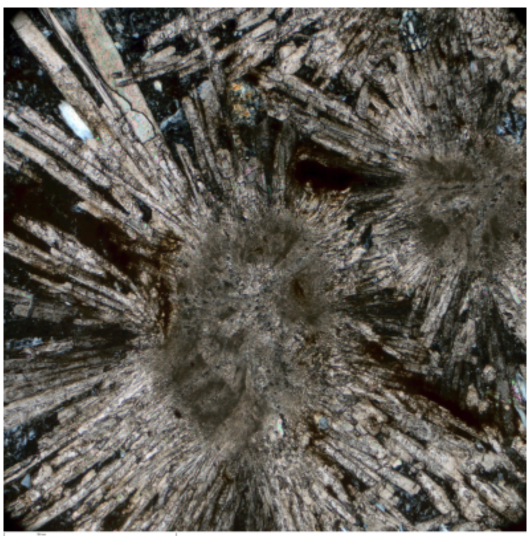
Observer(s): JP/BD

Lithified serpentinite mud with radial aragonite crystals



LIMS image no.: 39524901 Plane-polarized. Slide width 27mm

LIMS image no.: 39734941 Cross-polarized. Slide width 27mm



39526001

Radial aragonite crystals in a lithified serpentinite matrix.
Scale bar 1mm.

Sediment

Interval domain no: 1 Domain rel. abundance (%): 30 Domain name: matrix

Domain/Rock comment: lithified serpentinite mud

Lithology: serpentinite mud with aragonite crystals Observer: JP/BD

Matrix composition	Present (%)
Other minerals	100

Interval domain no:	2	Domain rel. abundance (%):	70	Domain name:	carbonate clast
Domain/Rock comment:	Radial aragonite crystal				
Lithology:	**aragonite crystal**			Observer:	JP/BD

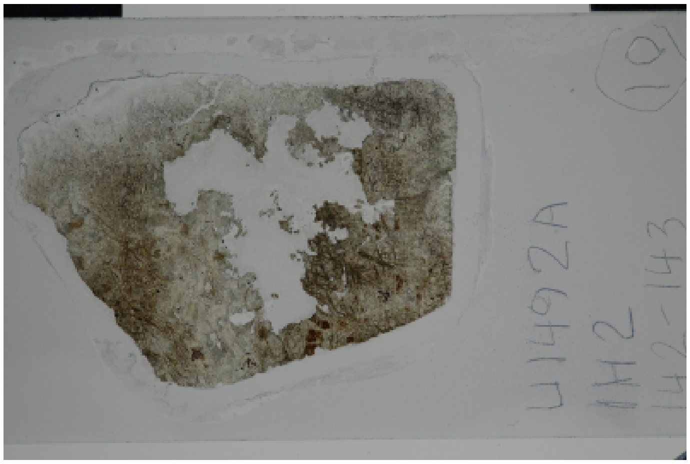
THIN SECTION LABEL ID: **366-U1492A-1H-2-W 142/143-TSB-TS_10**

TS no.: 10

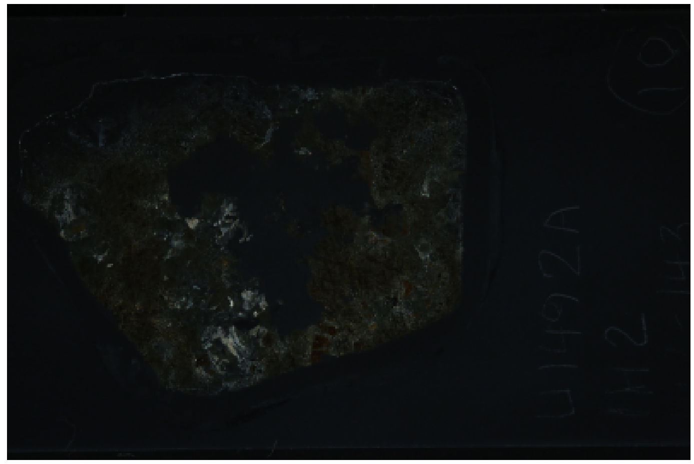
Thin Section Summary Description

Observer(s): JP/BD/DYH/JS

Massive serpentinized harzburgite with mesh textured serpentine. Orthopyroxene is converted to bastite. Serpentines are overprinted by reddish alteration minerals. Several Cr-spinel grains can be recognized.



LIMS image no.: 39525401 Plane-polarized. Slide width 27mm



LIMS image no.: 39734961 Cross-polarized. Slide width 27mm

Intrusive Mantle

Lithology: **serpentinized harzburgite**

Observer: JP/BD/JS

Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	80	0	100			mesh		
Serpentine	NA	100	NA	NA			pseudomorphic	
Orthopyroxene	20			1.2	NA		bastite	Opx concentrated in single domain - part of pyroxenite vein?

THIN SECTION LABEL ID: **366-U1492A-1H-3-MBIO2(115-135)-TSB-TS_14** TS no.: 14

Thin Section Summary Description Observer(s): JP/BD

Massive serpentinized harzburgite with mesh textured serpentine. Porphyroclastic orthopyroxene is converted to bastite. Vermicular spinel occur in association with bastite.

LIMS image no.: 39528341 Plane-polarized. Slide width 27mm

LIMS image no.: 39735081 Cross-polarized. Slide width 27mm

Intrusive Mantle

Lithology: **serpentinized harzburgite** Observer: JP/BD

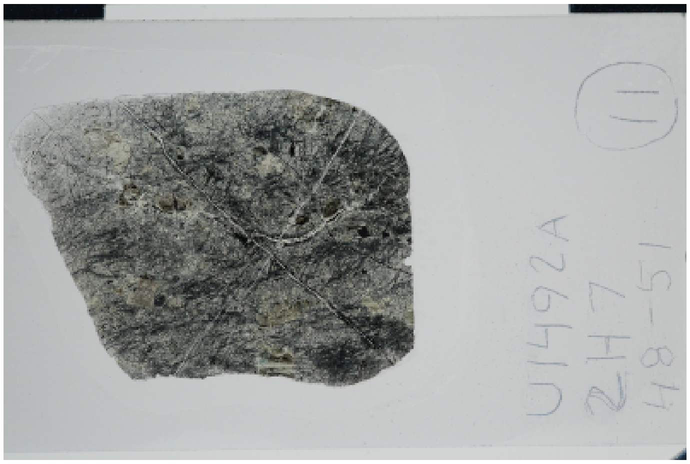
Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	90	0	100			mesh		
Serpentine	NA	100	NA	NA			pseudomorphic	
Orthopyroxene	9.8				NA		bastite	
Spinel	100			0.15	NA		vermicular	NA

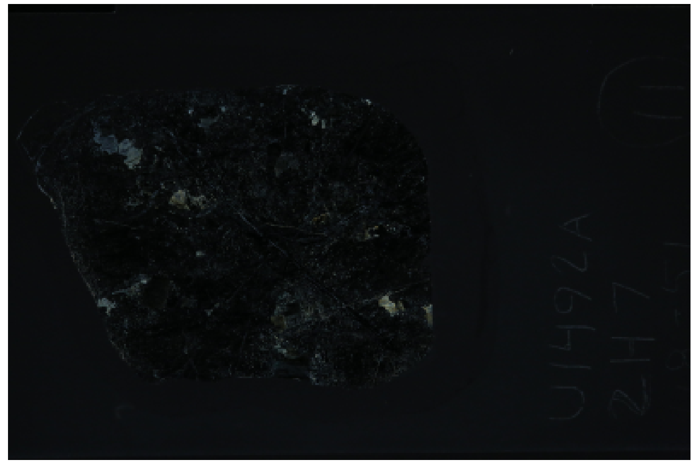
THIN SECTION LABEL ID: **366-U1492A-2H-7-W 48/51-TSB-TS_11** TS no.: 11

Thin Section Summary Description Observer(s): JP/BD/JS

Massive serpentinized harzburgite crosscut by serpentinite-magnetite veines. Serpentines are mostly mesh textured or bastite, but mesh serpentines are recrystalized into non-pseudomorphic interpenetrating textured serpentine in some parts. Opx porphyroclasts 2.4 to 1.2 mm long, aspect ratio about 2:1 or 2.5:1. Primary texture probably porphyroclastic.



LIMS image no.: 39528281 Plane-polarized. Slide width 27mm



LIMS image no.: 39735001 Cross-polarized. Slide width 27mm

Intrusive Mantle

Domain/Rock Comment: Opx porphyroclasts 2.4 to 1.2 mm long, aspect ratio about 2:1 or 2.5:1. Primary texture probably porphyroclastic.

Lithology: **serpentinized harzburgite** Observer: JP/BD

Texture: pseudomorphic

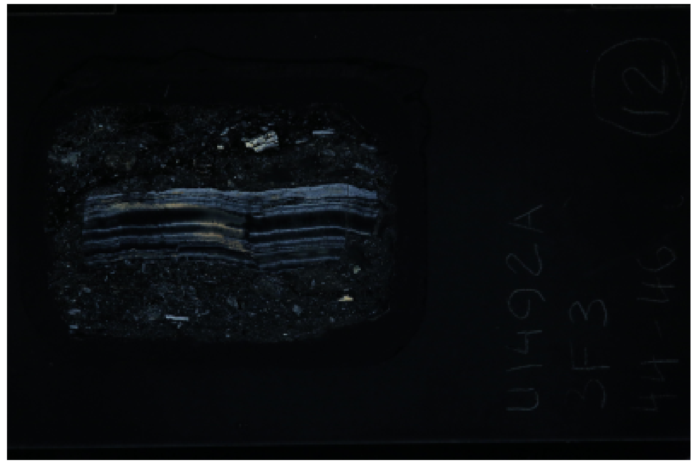
Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	90	0	100			mesh		
Serpentine	NA	100	NA	NA			pseudomorphic	
Orthopyroxene	9.8			1.6	NA		bastite	Opx porphyroclasts 2.4 to 1.2 mm long, aspect ratio about 2:1 or 2.5:1.
Spinel	100			0.1	NA			NA

THIN SECTION LABEL ID: **366-U1492A-3F-3-W 44/46-TSB-TS_12** TS no.: 12

Thin Section Summary Description Observer(s): JP/BD

Serpentine mud with lithic clasts. The clasts consist of a large vein of crackseal and serpentinized harzburgite.

LIMS image no.: 39525441 Plane-polarized. Slide width 27mm



LIMS image no.: 39735021 Cross-polarized. Slide width 27mm

39525981

Bastite and serpentine mud. Scale bar 1mm.

Intrusive Mantle

Interval domain no: **2** Domain rel. abundance (%): 10 Domain name: ultramafic clast

Lithology: Observer: BD/JP

Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Serpentine	NA	100	NA	NA			pseudomorphic	

Interval domain no: **3** Domain rel. abundance (%): 40 Domain name: ultramafic clast

Lithology: **serpentinite** Observer: JP/BD

Texture: fibrous

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Serpentine	NA	100	NA	NA			crack-seal	

Sediment

Interval domain no: 1 Domain rel. abundance (%): 50 Domain name: matrix

Domain/Rock comment: Serpentinite mud

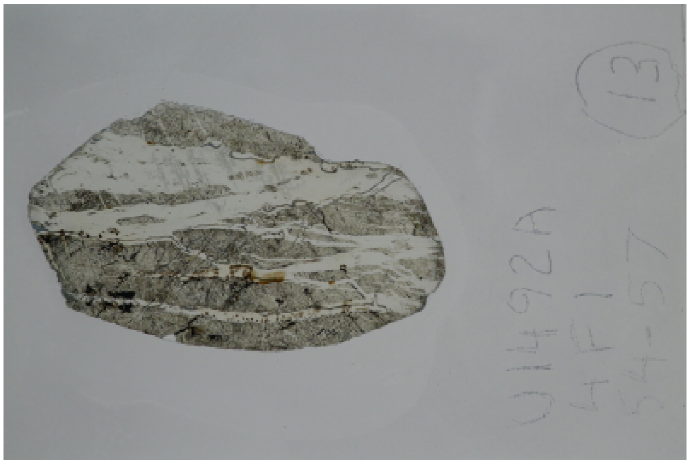
Lithology: **serpentinite mud** Observer: JP/BD

Matrix composition	Present (%)
Other minerals	100

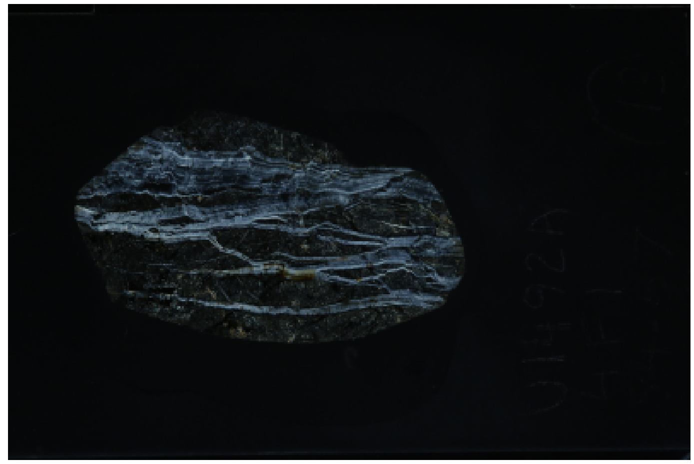
THIN SECTION LABEL ID: **366-U1492A-4F-1-W 54/57-TSB-TS_13** TS no.: 13

Thin Section Summary Description Observer(s): JP/BD

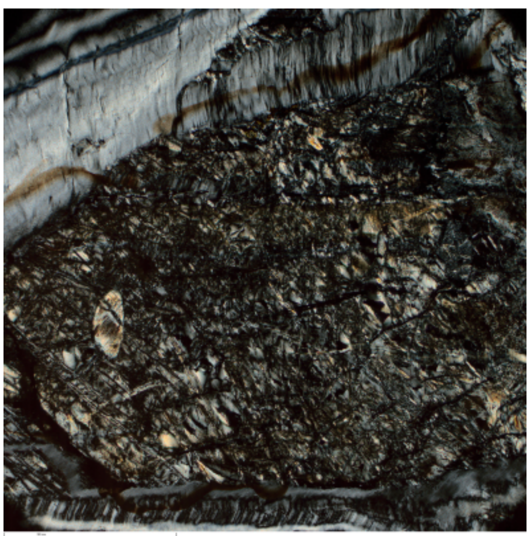
Massive completely serpentinized harzburgite crosscut by greenish and fibrous serpentine veins



LIMS image no.: 39525841 Plane-polarized. Slide width 27mm



LIMS image no.: 39735041 Cross-polarized. Slide width 27mm



39523851

interlocking textured serpentine cut by serpentine veins.
Scale bar 1mm.

Intrusive Mantle

Interval domain no: **1** Domain rel. abundance (%): 70 Domain name: ultramafic clast

Lithology: serpentinized dunite Observer: JP/BD

Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	100		100			hourglass		
Serpentine	NA	100	NA	NA			pseudomorphic	

Interval domain no: **2** Domain rel. abundance (%): 30 Domain name: vein

Lithology: **serpentinite vein** Observer: JP/BD

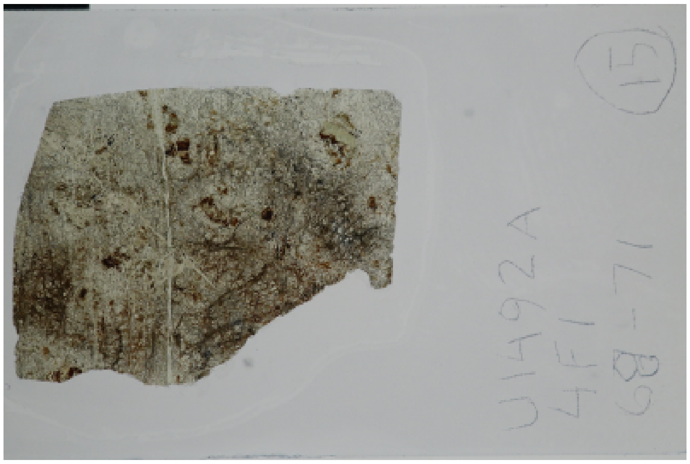
Texture: fibrous

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Serpentine	NA	100	NA	NA			fibrous	

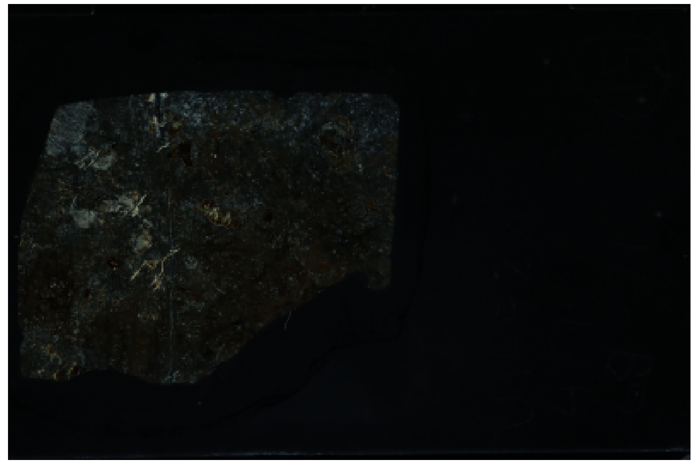
THIN SECTION LABEL ID: **366-U1492A-4F-1-W 68/71-TSB-TS_15** TS no.: 15

Thin Section Summary Description Observer(s): JP/BD/JS

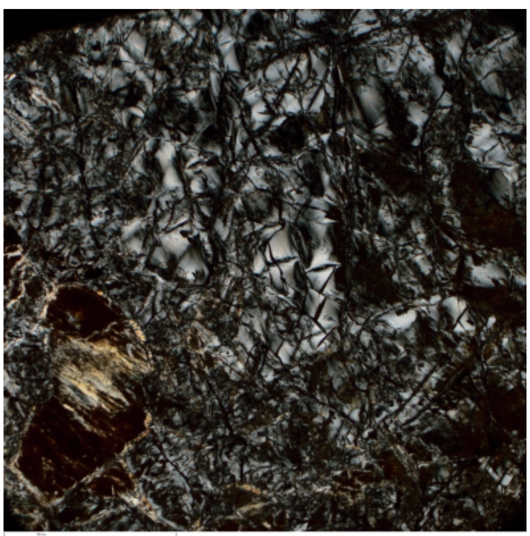
Massive serpentinized harzburgite crosscut by multiple serpentinite veins. Serpentines show non-pseudomorphic texture and partly altered to reddish alteration minerals. About 20% bastite = pyroxene originally.



LIMS image no.: 39525881 Plane-polarized. Slide width 27mm



LIMS image no.: 39735101 Cross-polarized. Slide width 27mm



39523871

Serpentine with interlocking texture and bastite altered to a red mineral. Scale bar 1mm.

Intrusive Mantle

Lithology: **serpentinized harzburgite** Observer: JP/BD/JS

Texture: nonpseudomorphic

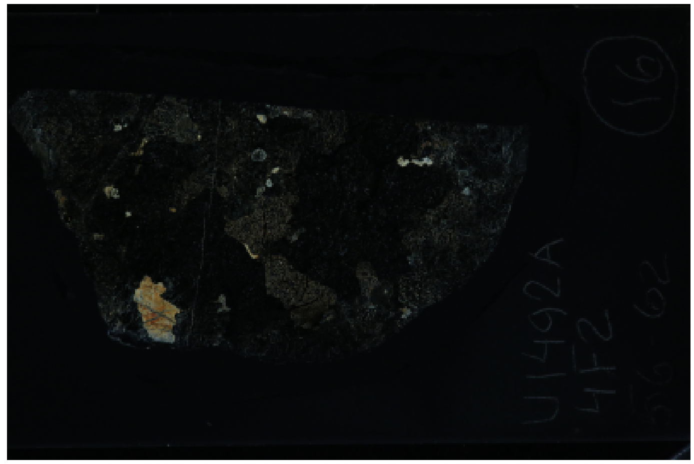
Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	80		100					
Serpentine	NA	100	NA	NA			interpenetrating	
Orthopyroxene	20			2	NA		bastite	Undulatory extinction

THIN SECTION LABEL ID: **366-U1492A-4F-2-W 56/62-TSB-TS_16** TS no.: 16

Thin Section Summary Description Observer(s): BD/JS

Serpentinized harzburgite (100% serpentinized) displaying pseudomorphic mesh and bastite textures replacing olivine and orthopyroxene respectively. The rock is crossed by small (< 50 microns width) brownish veins. JS: Opx elongate (4 x 2 mm in biggest) but with minimal deformal internally. Spinel inside Opx, like PG texture. Opx has strange lobate form against olivine, like melt filling pore spaces. Not PC or PG texture. Something new - coarse grained foliated, with melt enrichment (?).

LIMS image no.: 39541341 Plane-polarized. Slide width 27mm



LIMS image no.: 39735121 Cross-polarized. Slide width 27mm

Intrusive Mantle

Lithology: **serpentinized harzburgite** Observer: BD/JS

Texture: pseudomorphic

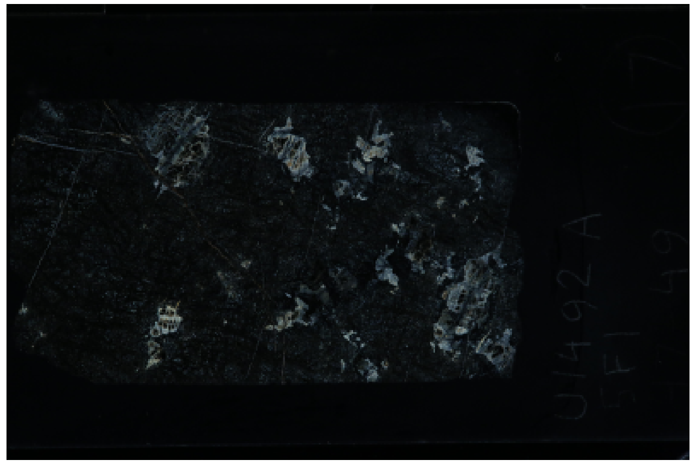
Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	80	0	100			mesh		
Serpentine	NA	100	NA	NA			pseudomorphic	
Orthopyroxene	20			2.5	NA		bastite	Opx elongate (4 x 2 mm in biggest) but with minimal deformal internally. Spinel inside Opx, like PG texture. Opx has strange lobate form against olivine, like melt filling pore spaces. Not PC or PG texture. Something new - coarse grained foliated, with melt enrichment (?).

THIN SECTION LABEL ID: **366-U1492A-5F-1-W 47/49-TSB-TS_17** TS no.: 17

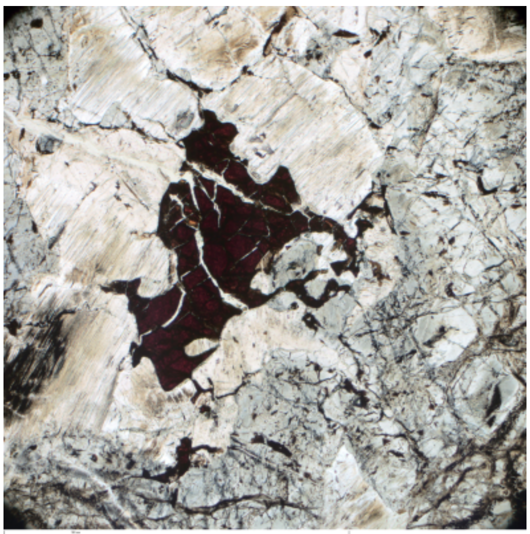
Thin Section Summary Description Observer(s): JP/BD/JS

Massive serpentinized harzburgite. Serpentine mostly shows mesh texture. Porphyroclastic orthopyroxene is metamorphozed by bastite. Vermicular spinel occurs in association with bastite. JS: Opx highly elongate, but with minimal deformal internally. Opx has strange lobate form against olivine, like melt filling pore spaces. Not PC or PG texture. Something new - coarse grained foliated, with melt enrichment (?).

LIMS image no.: 39525481 Plane-polarized. Slide width 27mm



LIMS image no.: 39735181 Cross-polarized. Slide width 27mm



39525961

Spinel intergrown with orthopyroxene altered to bastite.
Scale bar 1mm.

Intrusive Mantle

Lithology: **serpentinized harzburgite** Observer: JP/BD/JS

Texture: pseudomorphic

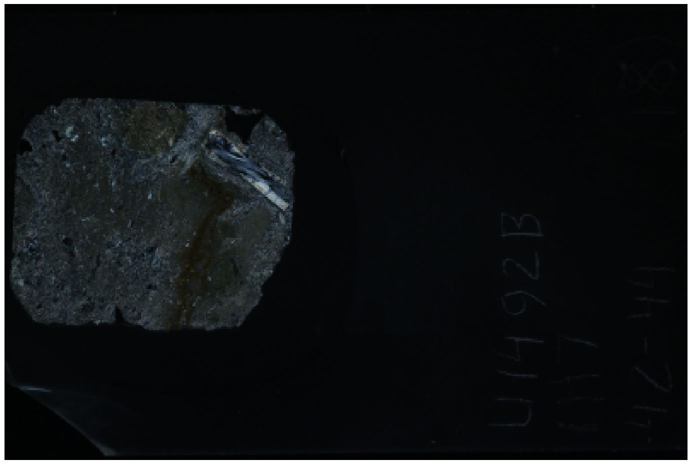
Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	80	0	100			mesh		
Serpentine	NA	100	NA	NA			pseudomorphic	
Orthopyroxene	19.5			2.5	NA		bastite	Opx highly elongate, but with minimal deformal internally. Opx has strange lobate form against olivine, like melt filling pore spaces. Not PC or PG texture. Something new - coarse grained foliated, with melt enrichment (?).
Spinel	100			0.1	NA		vermicular	NA

THIN SECTION LABEL ID: **366-U1492B-1H-7-W 42/44-TSB-TS_18** TS no.: 18

Thin Section Summary Description Observer(s): BD

Serpentine muds composed of thinely recrystallized matrix of serpentine lamellae containing fragments of serpentine fibrous veins and serpentinite clasts with mesh textures.

LIMS image no.: 39541381 Plane-polarized. Slide width 27mm



LIMS image no.: 39735161 Cross-polarized. Slide width 27mm

39545941

Serpentine mud embedding a fragment of a serpentine vein. Scale bar 1mm.

Intrusive Mantle

Interval domain no: **1** Domain rel. abundance (%): 70 Domain name: matrix

Lithology: serpentinite Observer: BD

Texture: nonpseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Serpentine	NA	100	NA	NA			interpenetrating	

Interval domain no: **2** Domain rel. abundance (%): 10 Domain name: ultramafic clast

Lithology: **serpentinite vein** Observer: BD

Texture: fibrous

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Serpentine	NA	100	NA	NA			fibrous	

Interval domain no: **3** Domain rel. abundance (%): 20 Domain name: ultramafic clast

Lithology: **serpentinized harzburgite** Observer: BD/JS

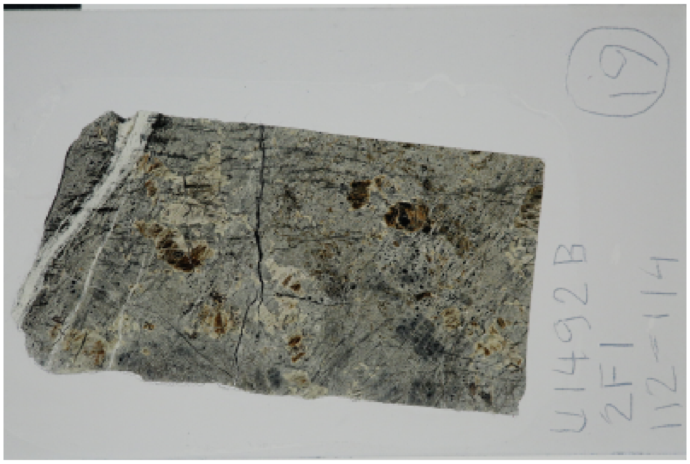
Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	90	0	100			mesh		
Serpentine	NA	100	NA	NA			pseudomorphic	
Orthopyroxene	10				NA		bastite	

THIN SECTION LABEL ID: **366-U1492B-2F-1-W 112/114-TSB-TS_19** TS no.: 19

Thin Section Summary Description Observer(s): JP/BD/JS

Serpentinized harzburgite with porphyroclastic bastite and mesh serpentine. Small veins of serpentine with interpenetrating textures are observed. JS: Harzburgite with about 18% Opx. Opx forms pseudomorphs in harzburgite. Odd lobate texture fills space between olivines. Resembles post-cumulus texture in cumulate rock, or melt infiltration texture, with Opx as melt phase (not Cpx).



LIMS image no.: 39541421 Plane-polarized. Slide width 27mm

LIMS image no.: 39735201 Cross-polarized. Slide width 27mm

Intrusive Mantle

Domain/Rock Comment: Harzburgite with about 18% Opx. Opx forms pseudomorphs in harzburgite. Odd lobate texture fills space between olivines. Resembles post-cumulus texture in cumulate rock, or melt infiltration texture, with Opx as melt phase (not Cpx).

Lithology: **serpentinized harzburgite** Observer: JP/BD

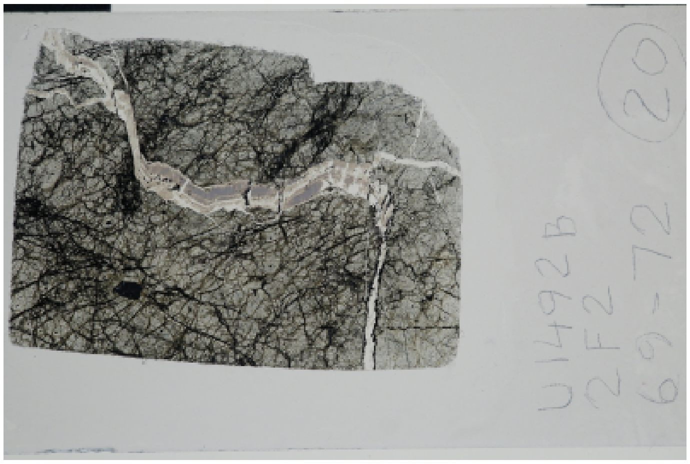
Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	82	0	100			mesh		
Orthopyroxene	18			2.2	NA	amoeboid-irregular	bastite	Opx pseudomorphs in harzburgite. Odd lobate texture fills space between olivines. Resembles post-cumulus texture in cumulate rock, or melt infiltration texture
Spinel	0.5			0.1	NA	isometric		NA

THIN SECTION LABEL ID: **366-U1492B-2F-2-W 69/72-TSB-TS_20** TS no.: 20

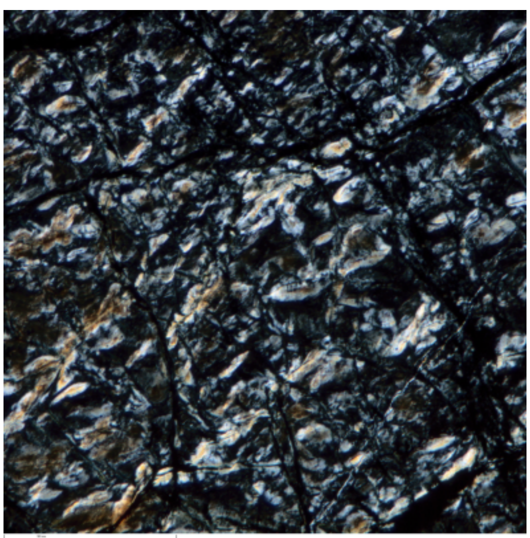
Thin Section Summary Description Observer(s): JP/BD/JS

Massive serpentinized dunite (100% serpentinized). The serpentine display pseudomorphic textures that are crosscut by serpentine veins with fibrous aspect.



LIMS image no.: 39489021 Plane-polarized. Slide width 27mm

LIMS image no.: 39735221 Cross-polarized. Slide width 27mm



39489731

Interpenetrating textured serpentine. Scale bar 1mm.

Intrusive Mantle

Interval domain no: **2** Domain rel. abundance (%): 10 Domain name: vein

Lithology: **serpentinite vein** Observer: JP/BD

Texture: fibrous

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Serpentine	NA	100	NA	NA			fibrous	

Interval domain no: **1** Domain rel. abundance (%): 90 Domain name: matrix

Lithology: **serpentinized dunite** Observer: JP/BD/JS

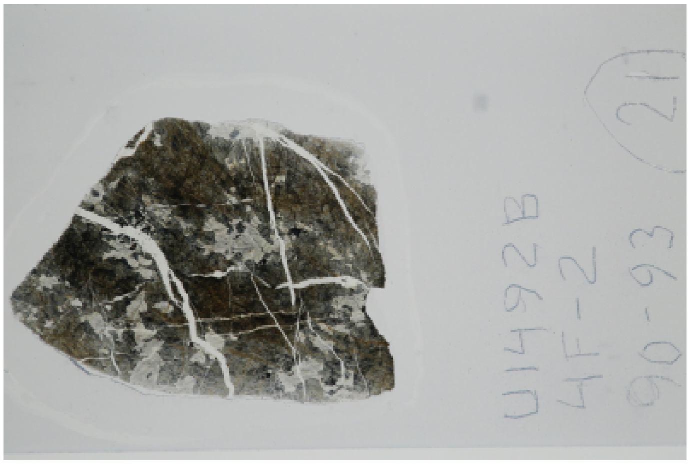
Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	99.5	0	100			mesh		
Serpentine	NA	100	NA	NA			pseudomorphic	
Spinel	0.5			1.2	NA	isometric		NA

THIN SECTION LABEL ID: **366-U1492B-4F-2-W 90/93-TSB-TS_21** TS no.: 21

Thin Section Summary Description Observer(s): JP/BD/JS

Massive completely serpentinized harzburgite. The serpentine displays mesh and interlocking textures that is crosscut by fibrous serpentine and magnetite veins. Harzburgite with about 20% Opx. Opx pseudomorphs in harzburgite. Odd lobate texture fills space between olivines and olivine inclusions in Opx. Resembles post-cumulus texture in cumulate rock, or melt infiltration texture. with Opx as melt phase (not Cpx).



LIMS image no.: 39523191 Plane-polarized. Slide width 27mm

LIMS image no.: 39735241 Cross-polarized. Slide width 27mm

Intrusive Mantle

Domain/Rock Comment: Harzburgite with about 20% Opx. Opx forms pseudomorphs in harzburgite. Odd lobate texture fills space between olivines, and olivine inclusions in Opx. Resembles post-cumulus texture in cumulate rock, or melt infiltration texture, with Opx as melt phase (not Cpx).

Lithology: **serpentinized harzburgite** Observer: JP/BD/JS

Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	80	0	100			mesh		
Serpentine	NA	100	NA	NA			pseudomorphic	
Orthopyroxene	20			2	NA	amoeboid-irregular	bastite	Opx pseudomorphs in harzburgite. Odd lobate texture fills space between olivines. Resembles post-cumulus texture in cumulate rock, or melt infiltration texture
Spinel	0.5			0.4	NA	isometric		NA

THIN SECTION LABEL ID: **366-U1492B-4F-4-W 56/59-TSB-TS_22** TS no.: 22

Thin Section Summary Description Observer(s): BD

Massive serpentinized harzburgite (100% serpentinized) displaying pseudomorphic mesh and bastite textures. The rock is crosscut by numerous fibrous veins of serpentine. Vermicular spinels have been observed.

LIMS image no.: 39547341 Plane-polarized. Slide width 27mm

LIMS image no.: 39735261 Cross-polarized. Slide width 27mm

Intrusive Mantle

Lithology: **serpentinized harzburgite** Observer: YI/BD/JS

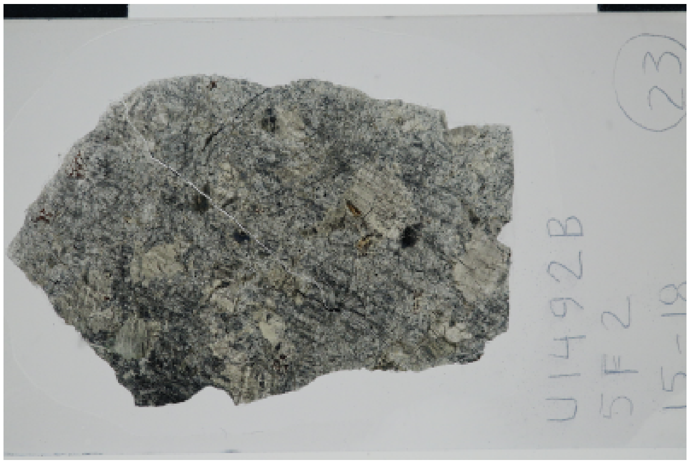
Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	80	0	100			mesh		
Serpentine	NA	99.9	NA	NA			pseudomorphic	
Orthopyroxene	19.9				NA		bastite	
Spinel	0.1			0.1	NA		vermicular	NA

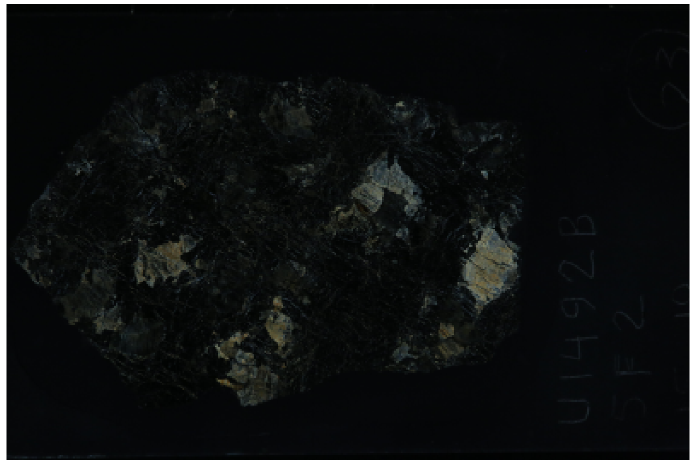
THIN SECTION LABEL ID: **366-U1492B-5F-2-W 15/18-TSB-TS_23** TS no.: 23

Thin Section Summary Description Observer(s): BD/JS

Massive serpentinized harzburgite (100% serpentinized) displaying mesh and bastite textures. The serpentine minerals are associated with a brownish alteration. Few vermicular small spinels are observed. Opx pseudomorphs in harzburgite have odd lobate texture that fills space between olivines. Resembles post-cumulus texture in cumulate rock, or melt infiltration texture. Also vermicular exsolution of spinel from Opx - protogranular? But why melt infiltration textures?



LIMS image no.: 39547361 Plane-polarized. Slide width 27mm



LIMS image no.: 39735281 Cross-polarized. Slide width 27mm

Intrusive Mantle

Lithology: **serpentinized harzburgite** Observer: YI/BD/JS

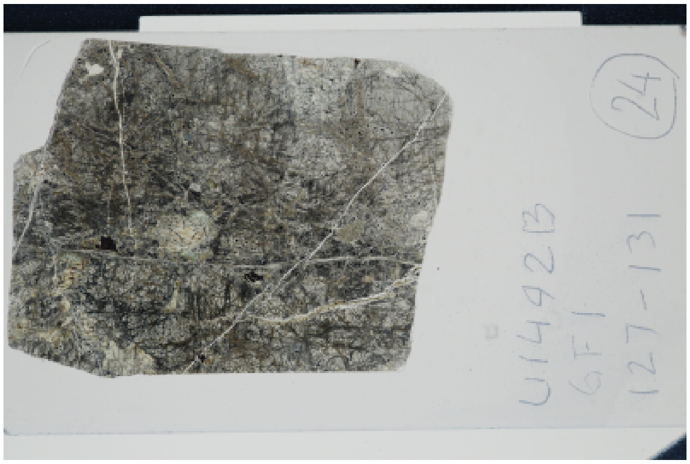
Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	70	0	100			mesh		
Serpentine	NA	99.7	NA	NA			pseudomorphic	
Orthopyroxene	29.7			2.2	NA	amoeboid-irregular	bastite	Opx pseudomorphs in harzburgite. Odd lobate texture fills space between olivines. Resembles post-cumulus texture in cumulate rock, or melt infiltration texture. Vermicular exsolution of spinel from Opx.
Spinel	0.3			0.1	NA		vermicular	NA

THIN SECTION LABEL ID: **366-U1492B-6F-1-W 127/131-TSB-TS_24** TS no.: 24

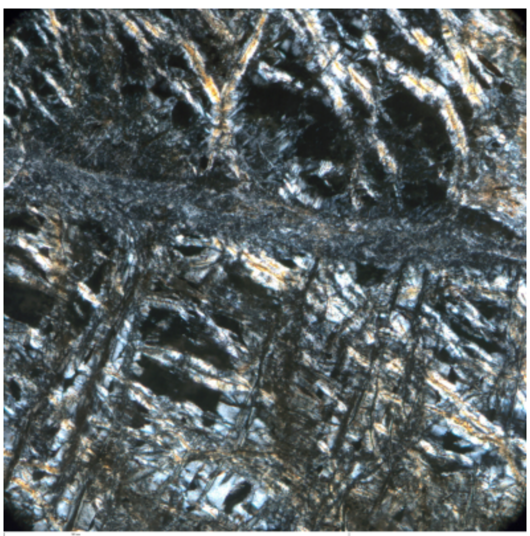
Thin Section Summary Description Observer(s): BD/JS

Massive serpentinized harzburgite (100% serpentinized) displaying pseudomorphic mesh and bastite textures. The mesh is crosscut by several generations of small veins (about 100 microns width) displaying interpenetrating and fibrous textures. JS: Harzburgite with about 20% Opx. Opx pseudomorphs in harzburgite have odd lobate texture that fills space between olivines. Resembles post-cumulus texture in cumulate rock, or melt infiltration texture. Vermicular exsolution of spinel from Opx. Some bastite-spinel clusters have bright green chlorite, suggesting former Cpx.



LIMS image no.: 39547401 Plane-polarized. Slide width 27mm

LIMS image no.: 39735301 Cross-polarized. Slide width 27mm



39553481

Mesh textures crosscut by a serpentine vein with interpenetrating texture. Scale bar 1mm.

Intrusive Mantle

Domain/Rock Comment: Harzburgite with about 20% Opx. Opx pseudomorphs in harzburgite have odd lobate texture that fills space between olivines. Resembles post-cumulus texture in cumulate rock, or melt infiltration texture. Vermicular exsolution of spinel from Opx. Some bastite-spinel clusters have bright green chlorite, suggesting former Cpx.

Lithology: **serpentinized harzburgite** Observer: YI/BD/JS

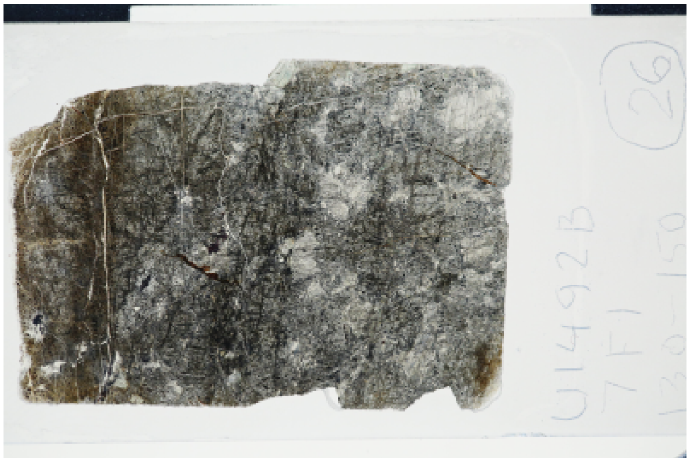
Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	80	0	100			mesh		
Serpentine	NA	99.7	NA	NA			pseudomorphic	
Orthopyroxene	19.7			2.4	NA	embayed	bastite	Opx pseudomorphs in harzburgite have odd lobate texture that fills space between olivines. Resembles post-cumulus texture in cumulate rock, or melt infiltration texture. Vermicular exsolution of spinel from Opx. Some bastite-spinel clusters have bright green chlorite, suggesting former Cpx.
Spinel	0.3			0.1	NA		vermicular	NA

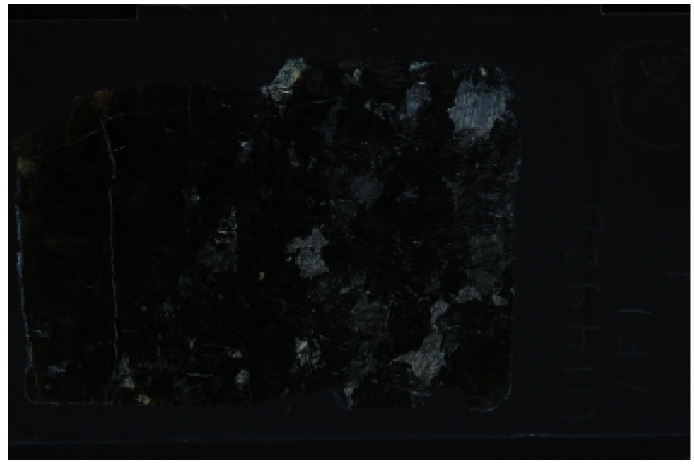
THIN SECTION LABEL ID: **366-U1492B-7F-1-MBIO2(130-150)-TSB-TS_26** TS no.: 26

Thin Section Summary Description Observer(s): BD/JP/JS

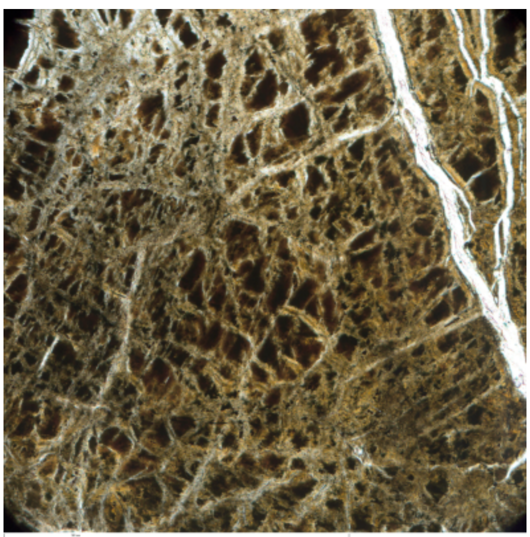
Massive serpentinized harzburgite (100% serpentinized) composed of mesh and bastite textures (MBIO wholeround). Large anhedral spinels of 300 microns width are observed. The serpentine can display a brown colour (late alteration?). The sample is crosscut by several fibrous veins. JS: Ragged interstitial looking Opx, plus some big Opx. Intermediate between true lobate and Coarse tabular



LIMS image no.: 39547481 Plane-polarized. Slide width 27mm



LIMS image no.: 39735361 Cross-polarized. Slide width 27mm



39548521

Mesh textures displaying a brown color (late alteration?). Scale bar 1mm.

Intrusive Mantle

Domain/Rock Comment: Ragged interstitial looking Opx, plus some big Opx. Intermediate between true lobate and Coarse tabular.

Lithology: **serpentinized harzburgite** Observer: YI/BD/JP/JS

Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	80	0	100			mesh		
Serpentine	NA	99.7	NA	NA			pseudomorphic	
Orthopyroxene	19.7			2.5	NA		bastite	Lobate Opx in places, ragged grains, interstitial to blocky.
Spinel	0.3			0.3	NA	anhedral		NA

THIN SECTION LABEL ID: **366-U1492B-7F-1-W 99/101-TSB-TS_25** TS no.: 25

Thin Section Summary Description Observer(s): BD/JP/JS

Serpentinized dunite (100% serpentinized) with pseudomorphic mesh textures. The serpentine has a brown colour. Large euhedral spinels of 300 microns and vermicular anhedral spinel of 1.4 mm are observed. The rock is crosscut by serveral small veins of fibrous serpentine.

LIMS image no.: 39547441 Plane-polarized. Slide width 27mm

LIMS image no.: 39735321 Cross-polarized. Slide width 27mm

Intrusive Mantle

Lithology: **serpentinized dunite** Observer: YI/BD/JP/JS

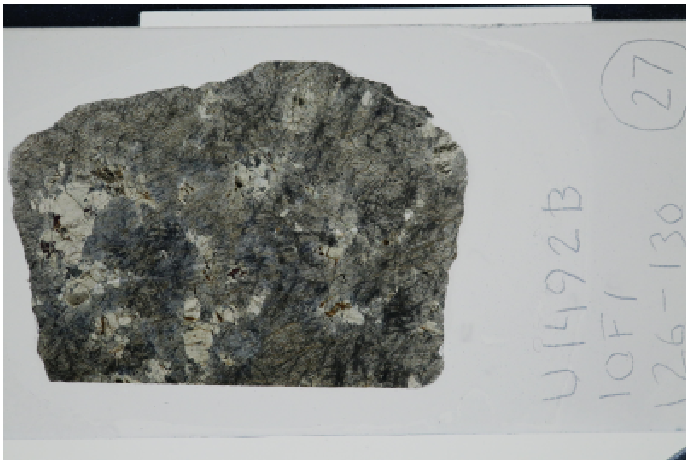
Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	95	0	100			mesh		
Serpentine	NA	99.5	NA	NA			pseudomorphic	
Orthopyroxene	4.5				NA		bastite	
Spinel	0.5			0.2	NA	euhedral to anhedral		NA

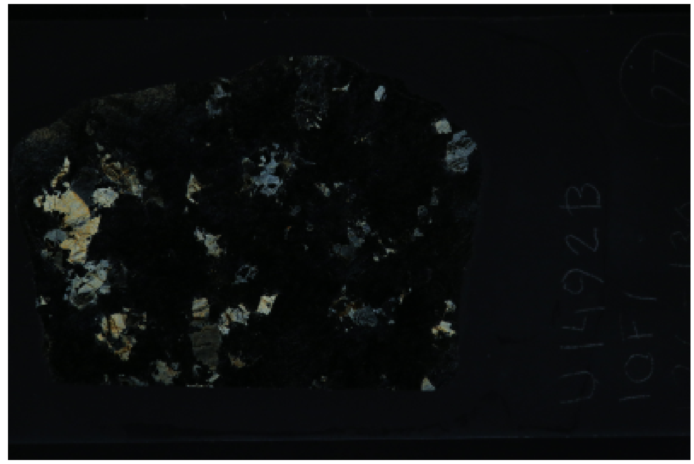
THIN SECTION LABEL ID: **366-U1492B-10F-1-W 126/130-TSB-TS_27** TS no.: 27

Thin Section Summary Description Observer(s): JP/BD/JS

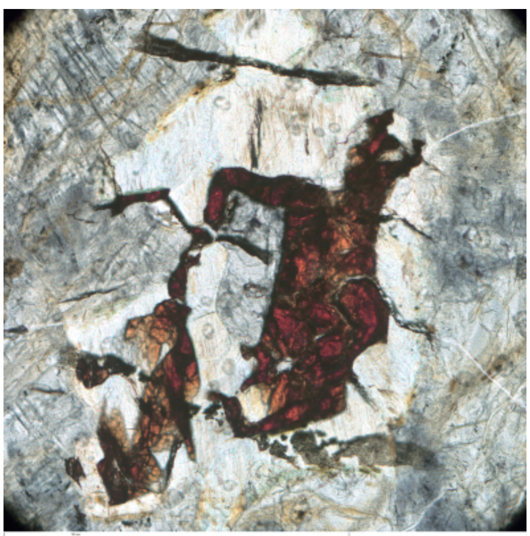
Massive serpentinized harzburgite (100% serpentinized). Mesh and bastite textured serpentine. Vermicular or holly-leaf chromian spinel embedded within bastite textures. JS: Harzburgite with large blocky Opx, smaller Opx have smooth lobate contacts with olivine; "melt infiltration texture"?. Spinel exsolved from Opx. Texture looks protogranular except for lobate areas. Minor strain: large Opx have kink folds and undulatory extinction, but are not flattened, no foliation obvious in Px fabric.



LIMS image no.: 39548281 Plane-polarized. Slide width 27mm

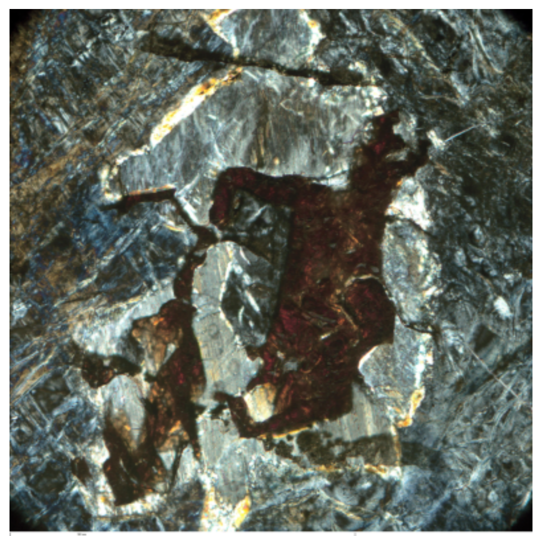


LIMS image no.: 39735381 Cross-polarized. Slide width 27mm



39554301

Plane polarized light microphotograph of a chromian spinel embedded into bastite textures. Scale bar 1mm.



39554721

Cross polarized light of a chromian spinel embedded into bastite textures. At the contact of the bastite the mesh display a dark blue and brown birefringence suggesting the presence of chlorite. Scale bar 1mm.

Intrusive Mantle

Domain/Rock Comment: Harzburgite with large blocky Opx, small lobate ones. Spinel exsolved from Opx, looks protogranular except for lobate areas.

Lithology: **serpentinized harzburgite** Observer: JP/BD/JS

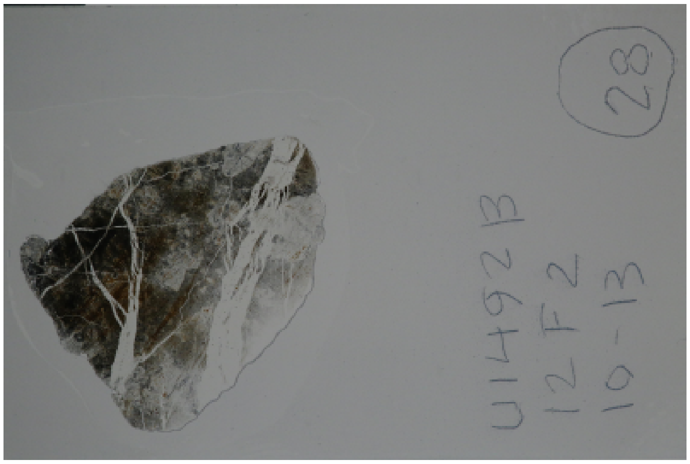
Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	80	0	100			mesh		
Serpentine	NA	99.7	NA	NA			pseudomorphic	
Orthopyroxene	19.7			2.6	NA		bastite	Large blocky Opx with spinel intergrowths. Almost all spinel in Px. Smaller Opx have lobate contacts with Olviine, fill space (melt infiltration)?
Spinel	0.3			0.5	NA		vermicular	NA

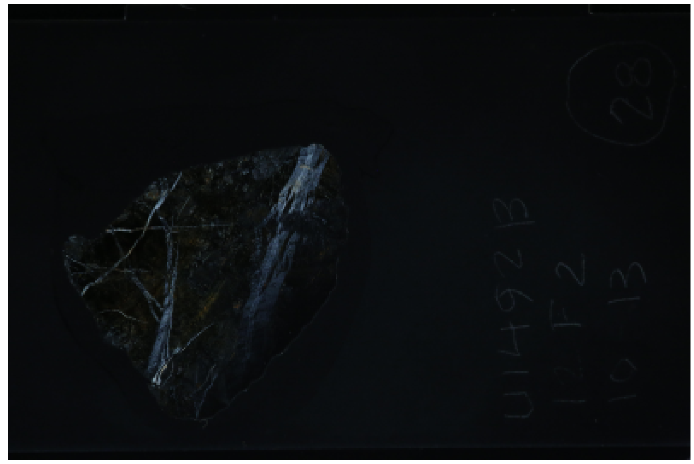
THIN SECTION LABEL ID: **366-U1492B-12F-2-W 10/13-TSB-TS_28** TS no.: 28

Thin Section Summary Description Observer(s): JP/BD/JS

Massive serpentinized harzburgite (100% serpentinized) crosscut by fibrous serpentinite veins. Serpentine in matrix show both mesh texture and non-pseudomorphic interlocking texture. Orthopyroxene is altered to bastite. Primary grains up to 4.4 mm long, most 2.4 mm avg.



LIMS image no.: 39528381 Plane-polarized. Slide width 27mm



LIMS image no.: 39735401 Cross-polarized. Slide width 27mm

Intrusive Mantle

Interval domain no: **2** Domain rel. abundance (%): 20 Domain name: ultramafic clast

Lithology: **serpentinite vein** Observer: JP/BD

Texture: fibrous

Interval domain no: **1** Domain rel. abundance (%): 80 Domain name: ultramafic clast

Lithology: **serpentinized harzburgite** Observer: JP/BD/JS

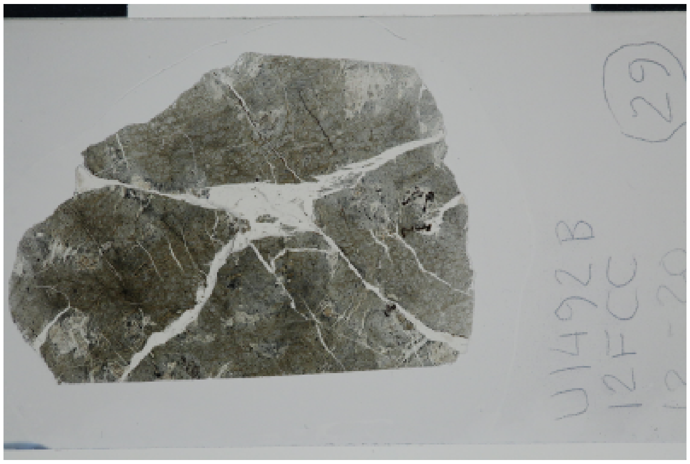
Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	80	0	100			mesh		
Serpentine	NA	100	NA	NA			pseudomorphic	
Orthopyroxene	20			2.4	NA		bastite	

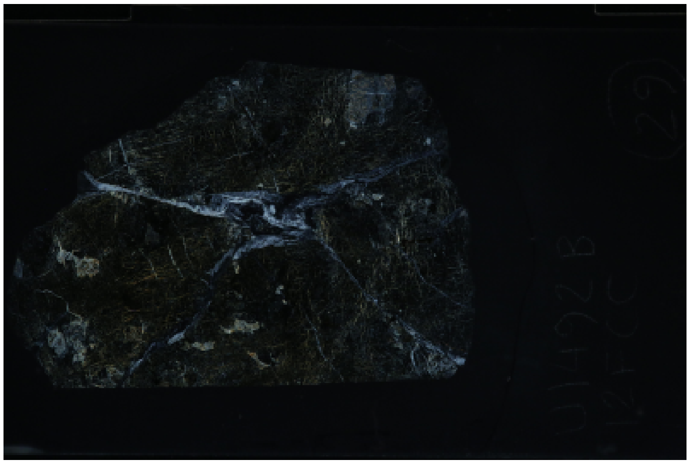
THIN SECTION LABEL ID: **366-U1492B-12F-CC-W 12/20-TSB-TS_29** TS no.: 29

Thin Section Summary Description Observer(s): JP/BD/JS

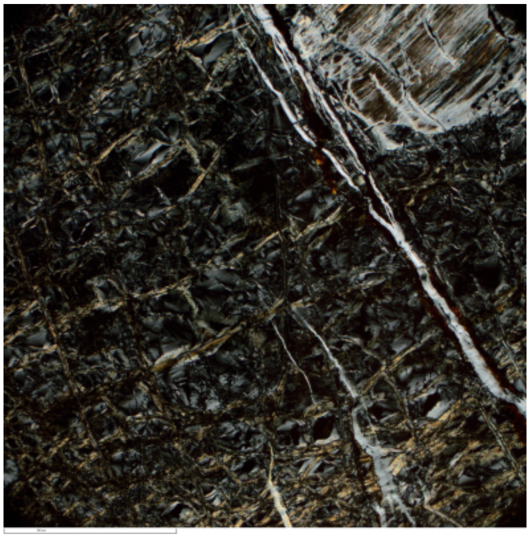
Massive completely serpentinized harzburgite crosscut by multiple serpentine veins. The serpentines mostly show mesh texture and orthopyroxene porphyroclasts are altered into bastite. JS: The Opx displays lobate space-filling textures, and spinel forms graphic exsolution intergrowths with Opx. The spinel exsolution suggests PG texture, but the lobate Opx contrasts with that. Not a normal texture.



LIMS image no.: 39523291 Plane-polarized. Slide width 27mm



LIMS image no.: 39735421 Cross-polarized. Slide width 27mm



39523511

Interlocking serpentine crosscut by multiple serpentine veins, upper right: bastite. Scale bar 1mm.

Intrusive Mantle

Interval domain no: **2** Domain rel. abundance (%): 10 Domain name: ultramafic clast

Lithology: **serpentinite vein** Observer: JP/BD

Texture: fibrous

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Serpentine	NA	100	NA	NA			fibrous	

Interval domain no: **1** Domain rel. abundance (%): 90 Domain name: ultramafic clast

Lithology: **serpentinized harzburgite** Observer: JP/BD/JS

Texture: pseudomorphic

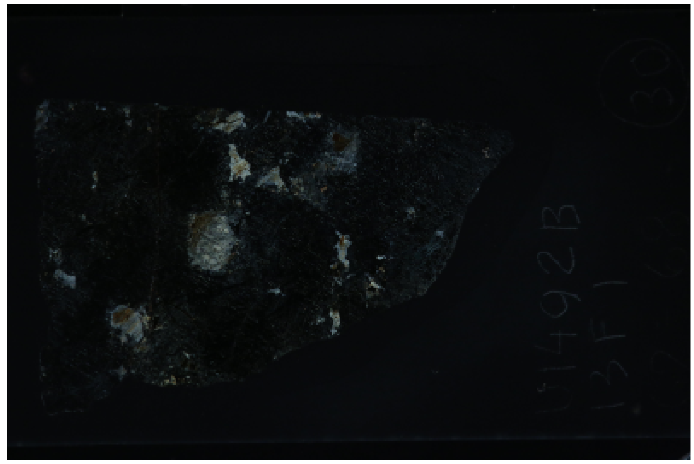
Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	80	0	100			mesh		
Serpentine	NA	100	NA	NA			pseudomorphic	
Orthopyroxene	9.5			1.8	NA		bastite	Opx pseudomorphs in harzburgite have odd lobate texture that fills space between olivines. Resembles post-cumulus texture in cumulate rock, or melt infiltration texture. Graphic exsolution of spinel from Opx.
Spinel	0.5			0.1	NA			NA

THIN SECTION LABEL ID: **366-U1492B-13F-1-W 62/68-TSB-TS_30** TS no.: 30

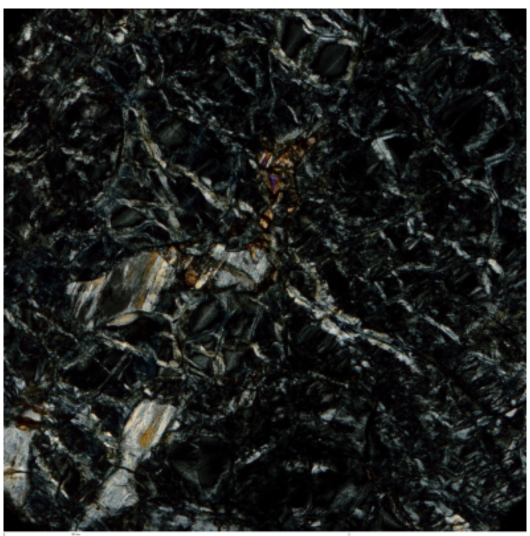
Thin Section Summary Description Observer(s): JP/BD/JS

Massive serpentinized harzburgite (100% serpentinized). Primary interstitial clinopyroxene occurs within mesh textured serpentine. The opx grains are altered into bastite. JS: Opx pseudomorphs in harzburgite have odd lobate texture that fills space between olivines. Resembles post-cumulus texture in cumulate rock, or melt infiltration texture. Cpx almost all associated with Opx bastite; likely granule exsolution from Opx. Original content may have been higher; talc/amphibole alterations suggest form Cpx grains.

LIMS image no.: 39523331 Plane-polarized. Slide width 27mm

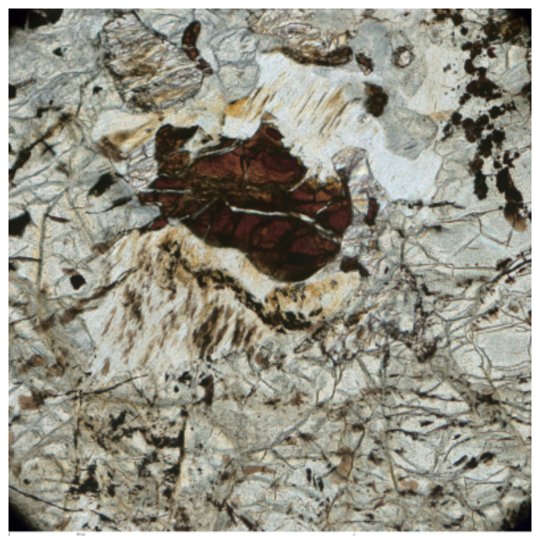


LIMS image no.: 39735461 Cross-polarized. Slide width 27mm



39523891

Interstitial cpx and bastite within mesh textured serpentine. Scale bar 1mm.



39525941

Lobate spinel associated with bastite enclosed by mesh textured erpentine. Scale bar 1mm.

Intrusive Mantle

Lithology: **serpentinized harzburgite** Observer: JP/BD/JS

Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	90	0	100			mesh		
Serpentine	NA	98	NA	NA			pseudomorphic	
Clinopyroxene	2			0.3	NA	NA	interstitial [BJ84]	Cpx almost all associated with Opx bastite; likely granule exsolution from Opx. Original content may have been higher; tacl/amphibole alterations suggest form Cpx grains.
Orthopyroxene	7.5			2	NA	embayed	bastite	Opx pseudomorphs in harzburgite have odd lobate texture that fills space between olivines. Resembles post-cumulus texture in cumulate rock, or melt infiltration texture. One large Opx is normal porphyroclast.
Spinel	0.5			0.05	NA		lobate	NA

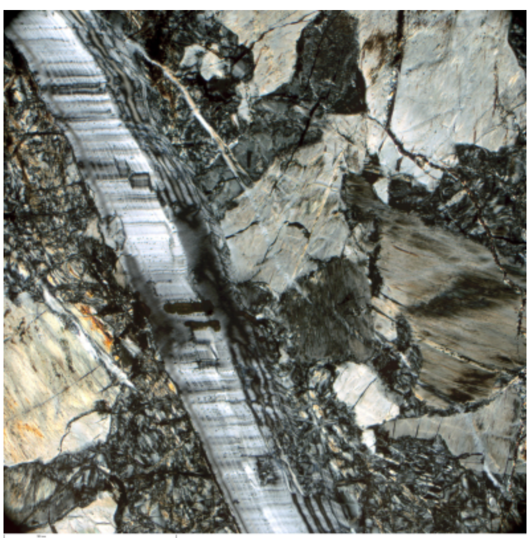
THIN SECTION LABEL ID: **366-U1492C-1H-4-W 87/90-TSB-TS_31** TS no.: 31

Thin Section Summary Description Observer(s): JP/BD/JS

Massive serpentinized harzburgite (100% serpentinized) crosscut by fibrous serpentine veins with crackseal textures. Vermicular chromian spinel (trace). Texture mildly porphyroclastic, with large PC Opx, deformed with kink folds.

LIMS image no.: 39548321 Plane-polarized. Slide width 27mm

LIMS image no.: 39735481 Cross-polarized. Slide width 27mm



39555141

Cross polarized light of a crackseal vein crossing mesh and bastite textures. Scale bar 1mm.

Intrusive Mantle

Lithology: **serpentinized harzburgite** Observer: JP/BD/JS

Texture: pseudomorphic

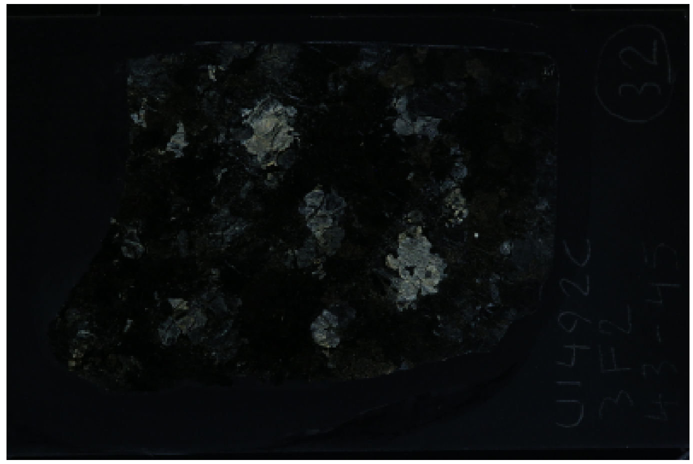
Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	80	0	100			mesh		
Serpentine	NA	99.5	NA	NA			pseudomorphic	
Orthopyroxene	19.5			2.4	NA	porphyroclas ts	bastite	Deformed porphyroclasts up to 5 mm; some clusters may have been larger single grains.
Spinel	0.25			0.7	NA		vermicular	NA

THIN SECTION LABEL ID: **366-U1492C-3F-2-W 43/45-TSB-TS_32** TS no.: 32

Thin Section Summary Description Observer(s): JP/BD/JS

Massive serpentinized harzburgite (100% serpentinized). Mesh and bastite serpentine. Vermicular chromian spinel associated with bastite. JS: Embayed lobate Opx, partly deformed with kinks. Vermicular spinel clusters in pyroxene. Protogranular / melt infiltration texture. Melt infiltration less well developed this section.

LIMS image no.: 39548381 Plane-polarized. Slide width 27mm



LIMS image no.: 39735501 Cross-polarized. Slide width 27mm

Intrusive Mantle

Lithology: **serpentinized harzburgite** Observer: JP/BD/JS

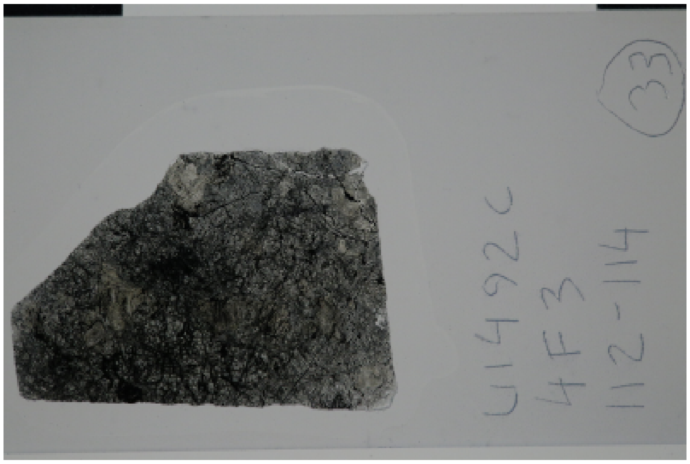
Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	75	0	100			mesh		
Serpentine	NA	99.5	NA	NA			pseudomorphic	
Orthopyroxene	24.5			2.2	NA	embayed	bastite	Embayed lobate Opx, partly deformed with kinks. Vermicular spinel clusters in pyroxene. Protogranular / melt infiltration texture.
Spinel	0.5			1	NA		vermicular	NA

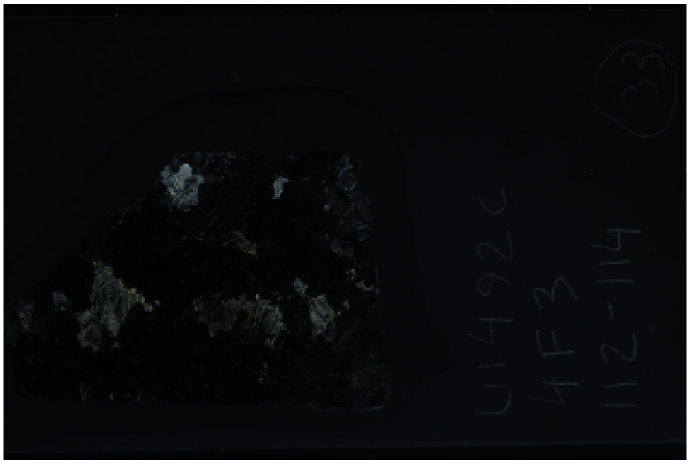
THIN SECTION LABEL ID: **366-U1492C-4F-3-W 112/114-TSB-TS_33** TS no.: 33

Thin Section Summary Description Observer(s): JP/BD/JS

Massive serpentinized harzburgite (100% serpentinized). Mesh serpentine and bastite. Vermicular chromian spinel. Embayed lobate Opx, partly deformed with kinks. melt infiltration texture.



LIMS image no.: 39548401 Plane-polarized. Slide width 27mm



LIMS image no.: 39735521 Cross-polarized. Slide width 27mm

Intrusive Mantle

Lithology: **serpentinized harzburgite** Observer: JP/BD/JS

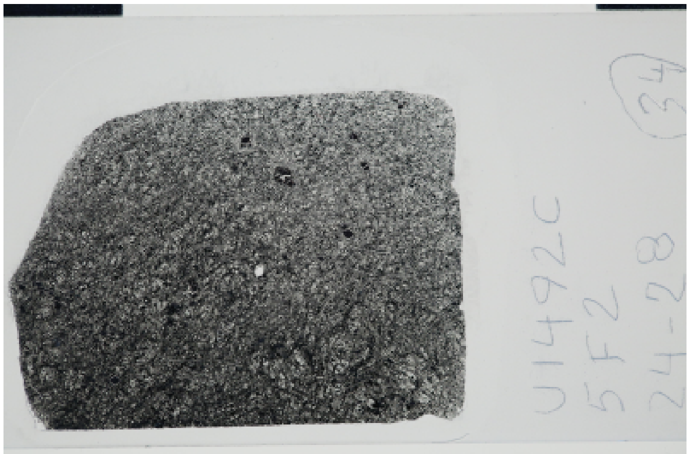
Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	85	0	100			mesh		
Serpentine	NA	99.5	NA	NA			pseudomorphic	
Orthopyroxene	14.5			2.4	NA	embayed	bastite	Embayed lobate Opx, partly deformed with kinks. melt infiltration texture.
Spinel	0.5			0.5	NA		vermicular	NA

THIN SECTION LABEL ID: **366-U1492C-5F-2-W 24/28-TSB-TS_34** TS no.: 34

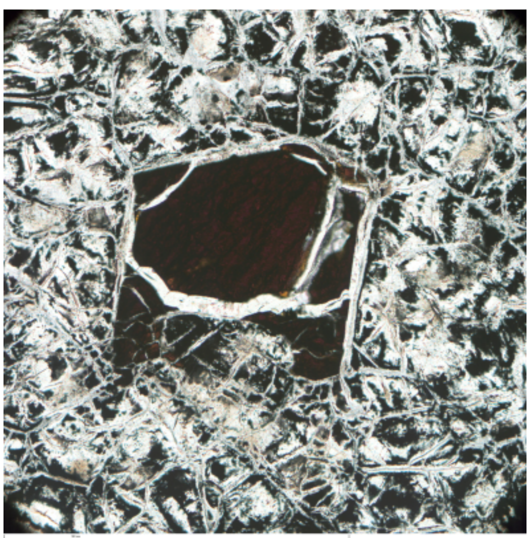
Thin Section Summary Description Observer(s): JP/BD

Serpentinized dunite (100% serpentinization) with euhedral-subhedral chromian spinel.



LIMS image no.: 39548441 Plane-polarized. Slide width 27mm

LIMS image no.: 39735541 Cross-polarized. Slide width 27mm



39548541

Subhedral chromian spinel. Scale bar 1mm.

Intrusive Mantle

Lithology: **serpentinized harzburgite** Observer: JP/BD/JS

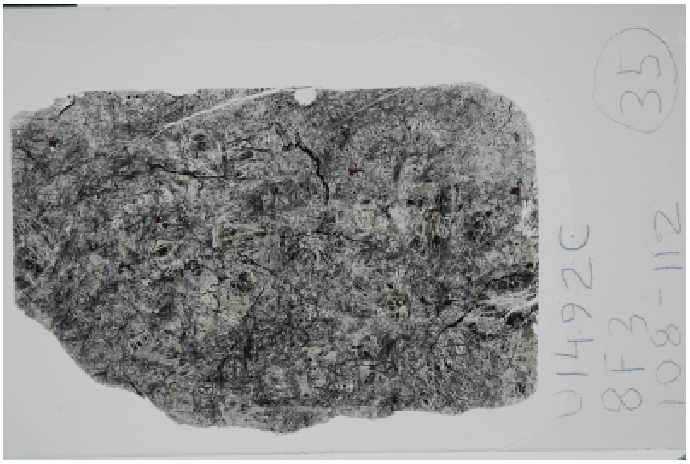
Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	98	0	100			mesh		
Serpentine	NA	98	NA	NA			pseudomorphic	
Orthopyroxene	0				NA			
Spinel	0.5			0.7	NA		euhedral-anhedral	NA

THIN SECTION LABEL ID: **366-U1492C-8F-3-W 108/112-TSB-TS_35** TS no.: 35

Thin Section Summary Description Observer(s): JD/JS

Massive serpentinized harzburgite (100% serpentinized) displaying pseudomorphic mesh and bastite textures, being crosscut by several generations of small serpentine veins. Vermicular or holly-leaf chromian spinels with size from 200 um to 800 um are embedded within bastite textures. Black opaque minerals (magnetite?) are quite common, filling in the small fractures or embedding within serpentine or bastite. Small grains of sulfide are also seen in the reflected light. JS: Embayed lobate Opx, partly deformed with kinks. melt infiltration texture.



LIMS image no.: 39570201 Plane-polarized. Slide width 27mm

LIMS image no.: 39735561 Cross-polarized. Slide width 27mm

39573661

Mesh textures crosscut by several serpentine veins. Dark opaque minerals are quite common interior of serpentine or bastite. One fresh olivine grain is observed. Scale bar 1mm.

39573701

Sulfide in the center. Scale bar 1mm.

Intrusive Mantle

Lithology: **serpentinized harzburgite** Observer: JD/BD/JS

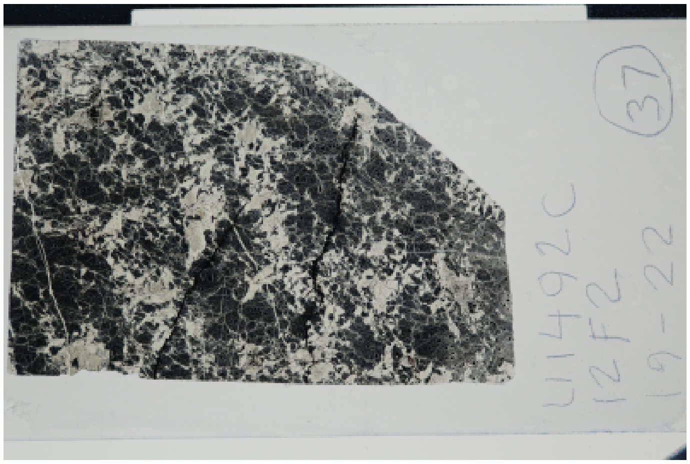
Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	70	0	100			mesh		
Serpentine	NA	80	NA	NA			pseudomorphic	
Orthopyroxene	30			2	NA	embayed	bastite	Embayed lobate Opx, partly deformed with kinks. melt infiltration texture
Spinel	0.5			0.2	NA		vermicular	NA

THIN SECTION LABEL ID: **366-U1492C-12F-2-W 19/22-TSB-TS_37** TS no.: 37

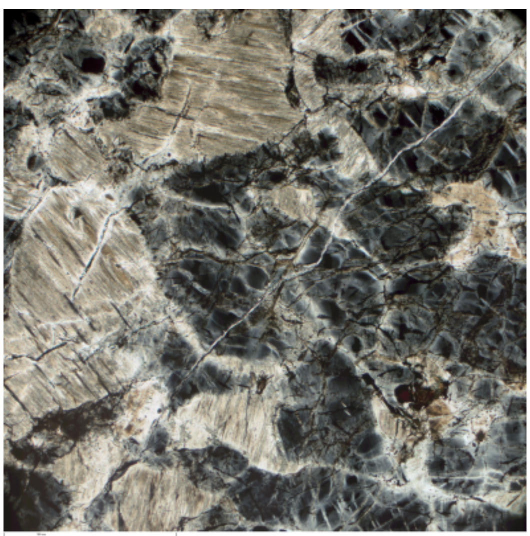
Thin Section Summary Description Observer(s): JP/JS

Serpentinized harzburgite. Mesh serpentine and bastite. Vermicular chromian spinel. Embayed lobate Opx, No deformation. Strong melt infiltration texture.



LIMS image no.: 39548481 Plane-polarized. Slide width 27mm

LIMS image no.: 39735601 Cross-polarized. Slide width 27mm



39573801

Mesh and bastite texture serpentine. Scale bar 1mm.

Intrusive Mantle

Lithology: **serpentinized harzburgite** Observer: JP/JD/JS

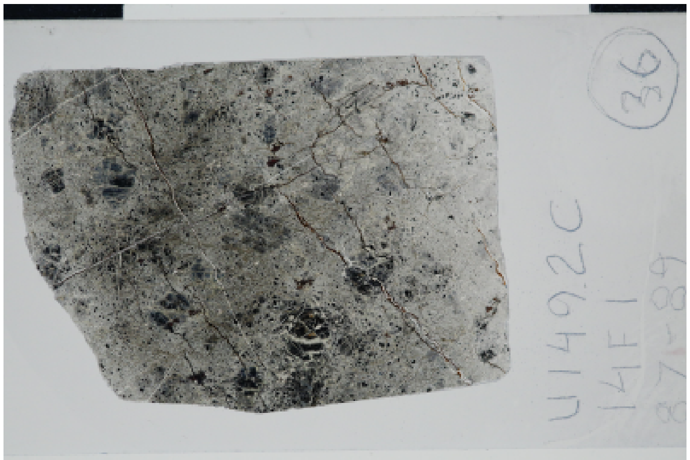
Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	60	0	100			mesh		
Serpentine	NA	95	NA	NA			pseudomorphic	
Orthopyroxene	40			1.6	NA	embayed	bastite	Embayed lobate Opx, No deformation. Strong melt infiltration texture.
Spinel	0.3			0.5	NA		vermicular	NA

THIN SECTION LABEL ID: **366-U1492C-14F-1-W 87/89-TSB-TS_36** TS no.: 36

Thin Section Summary Description Observer(s): BD/JS

Massive serpentinized harzburgite (100% serpentinized). Pseudomorphic textures with mesh and bastite formed from olivine and orthopyroxene respectively. The bastite is affected by a brown alteration. Mantle spinel displays euhedral shape. Several veins of fibrous serpentine have been observed. JS: Smaller Opx are embayed with lobate margins. Melt infiltration.



LIMS image no.: 39576201 Plane-polarized. Slide width 27mm

LIMS image no.: 39735581 Cross-polarized. Slide width 27mm

Intrusive Mantle

Lithology: **serpentinized harzburgite** Observer: BD/JS

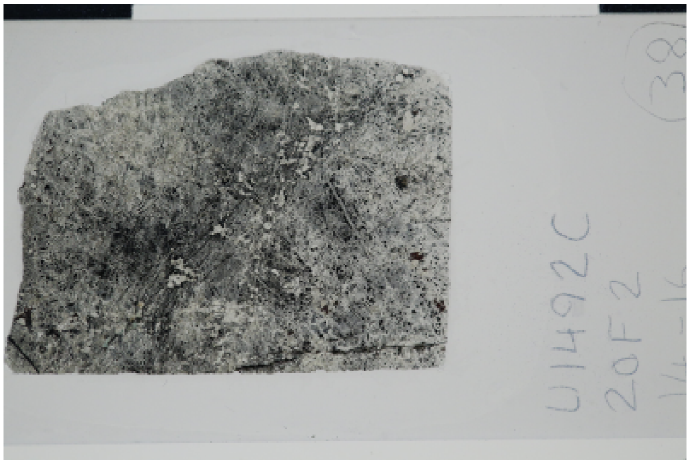
Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	80	0	100			mesh		
Serpentine	NA	100	NA	NA			pseudomorphic	
Orthopyroxene	18			2.2	NA	embayed	bastite	The bastite is associated with a brownish alteration. JS: Smaller Opx are embayed with lobate margins. Melt infiltration.
Spinel	2				NA		euhedral	NA

THIN SECTION LABEL ID: **366-U1492C-20F-2-W 14/16-TSB-TS_38** TS no.: 38

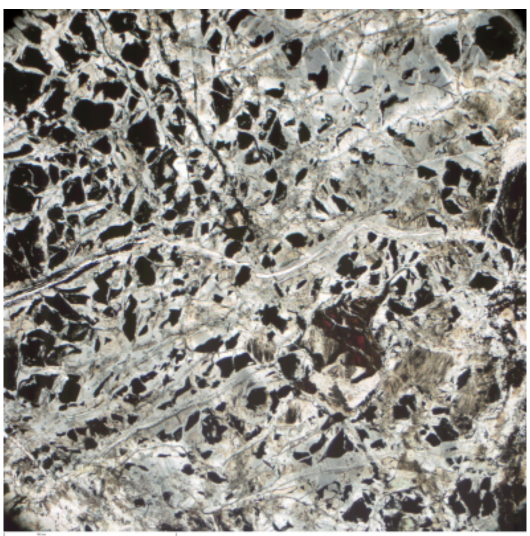
Thin Section Summary Description Observer(s): JD/JS

Massive serpentinized harzburgite (100% serpentinized) displaying pseudomorphic mesh and bastite textures, being crosscut by several small serpentine veins. Vermicular brownish chromian spinels with size from 0.2 mm to 1 mm are embedded within bastite textures. Black opaque minerals (magnetite?) are quite common, filling in the small fractures or embedding within serpentine or bastite. Chlorites are also observed in some part. JS: Spinel associated with pyroxene clusters - protogranular texture.



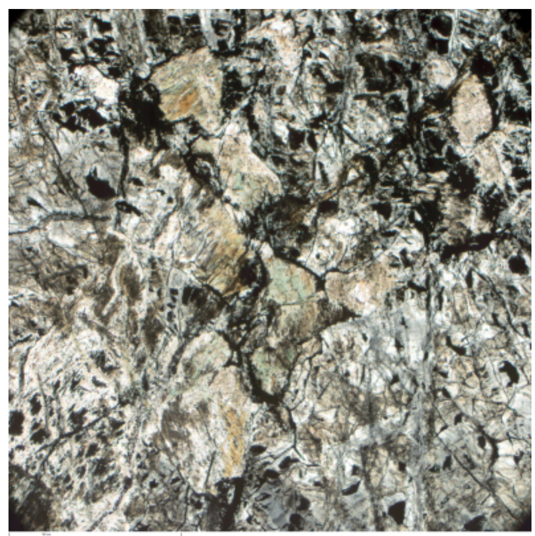
LIMS image no.: 39570241 Plane-polarized. Slide width 27mm

LIMS image no.: 39735621 Cross-polarized. Slide width 27mm



39573741

Massive serpentinite crosscut by several veins of serpentine. Dark magnetite is quite common, and dark brownish spinel is also observed. Scale bar 1mm.



39573721

Chlorite with yellow to green pleochriosm. Scale bar 1mm.

Intrusive Mantle

Lithology: **serpentinized harzburgite** Observer: JD/JS

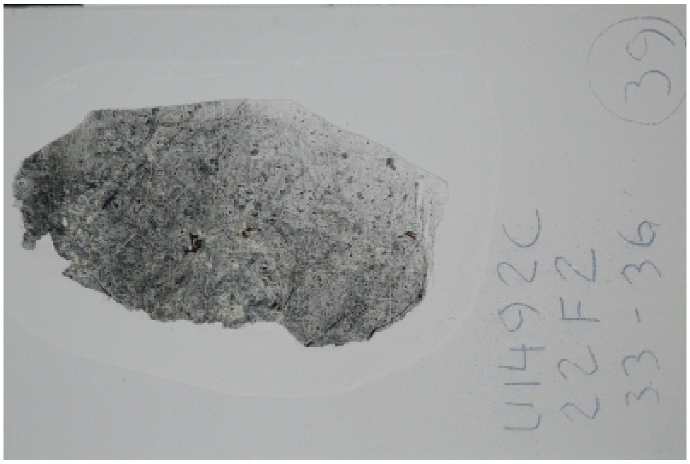
Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	80	0	100			mesh		
Serpentine	NA	80	NA	NA			pseudomorphic	
Orthopyroxene	20			1.2	NA	embayed	bastite	Embayed lobate Opx, No deformation. Strong melt infiltration texture. Spinel associated with pyroxene clusters - protogranular texture.
Spinel	0.5			0.2	NA		vermicular	NA

THIN SECTION LABEL ID: **366-U1492C-22F-2-W 33/36-TSB-TS_39** TS no.: 39

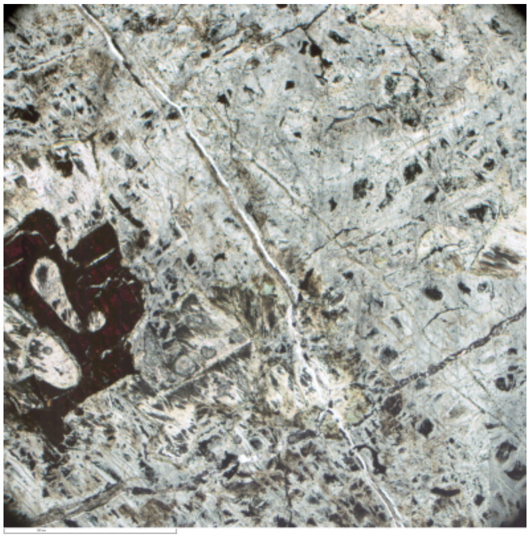
Thin Section Summary Description Observer(s): JD/JS

Massive serpentinized harzburgite (100% serpentinized) displaying pseudomorphic mesh and bastite textures, crosscut by several generations of small serpentine veins. Vermicular or holly-leaf chromian spinels are embedded within bastite textures. Black opaque minerals (magnetite?) are quite common, filling in the small fractures or embedding within serpentine or bastite. Protogranular with melt infiltration.



LIMS image no.: 39570281 Plane-polarized. Slide width 27mm

LIMS image no.: 39735641 Cross-polarized. Slide width 27mm



39574531

Massive serpentinite crosscut by several generation veins of serpentine. Opaque in the center of serpentine of bastite is quite common, and dark brownish spinel is also observed. Scale bar 1mm.

Intrusive Mantle

Lithology: **serpentinized harzburgite** Observer: JD/JS

Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	90	0	100			mesh		
Serpentine	NA	90	NA	NA			pseudomorphic	
Orthopyroxene	10			1.2	NA	embayed	bastite	Embayed lobate Opx, No deformation. Strong melt infiltration texture. Spinel associated with pyroxene clusters - protogranular texture
Spinel	0.3			0.4	NA		vermicular	NA

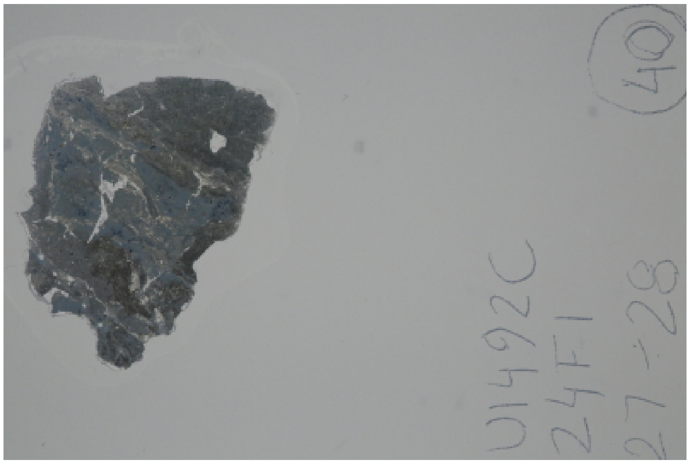
THIN SECTION LABEL ID: **366-U1492C-24F-1-W 27/28-TSB-TS_40**

TS no.: 40

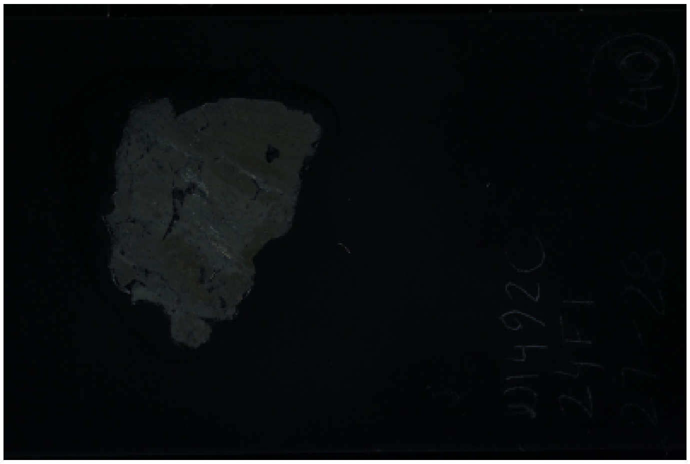
Thin Section Summary Description

Observer(s): YI

Completely altered aphyric basalt. Partly sheared.



LIMS image no.: 39541461 Plane-polarized. Slide width 27mm



LIMS image no.: 39735661 Cross-polarized. Slide width 27mm

Extrusive Hypabyssal

Lithology: **aphyric basalt**

Observer: YI

Texture:

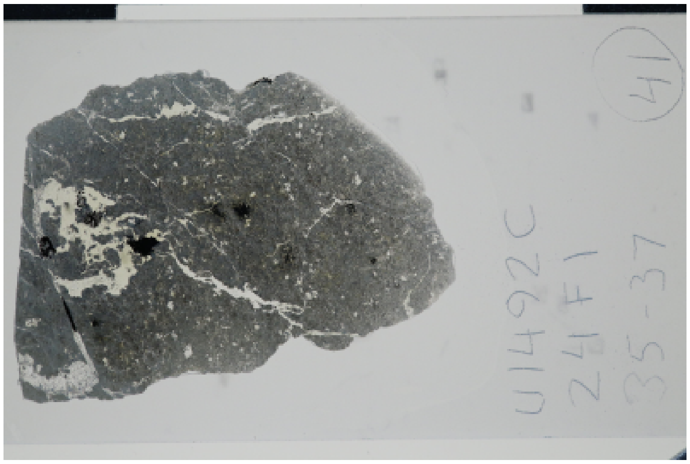
Average grain size modal name: fine grained [366]

Groundmass Mineral	Original (%)	Replaced (%)	Size Mode (mm)	Shape	Habit	Comment
Plagioclase	70	100	0.1	subhedral		completely altered
Clinopyroxene	29	100	0.1	anhedral		completely altered
Orthopyroxene		100				
Fe-TI Oxide	1	100	0.05	subhedral		completely altered

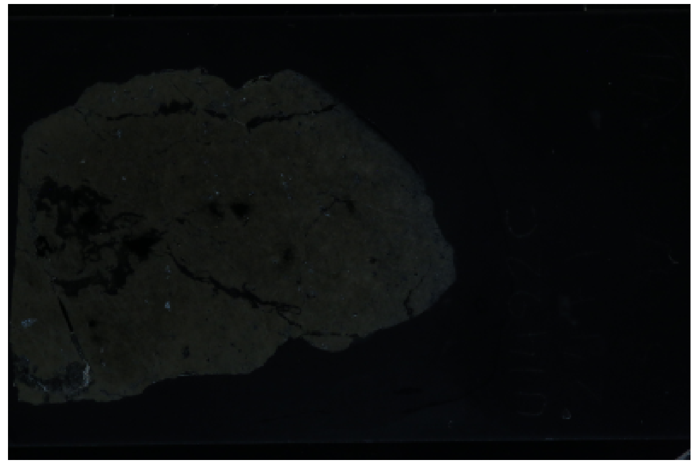
THIN SECTION LABEL ID: **366-U1492C-24F-1-W 35/37-TSB-TS_41** TS no.: 41

Thin Section Summary Description Observer(s): JD/YI

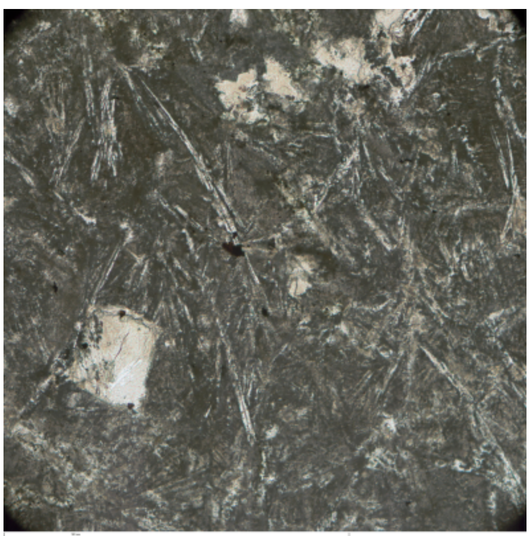
Completely altered aphyric basalt, with Cpx phenocrysts and acicular plagioclase in the groudmass, small grains (<0.05 mm)of brownish spinel are also common in the groundmass



LIMS image no.: 39570321 Plane-polarized. Slide width 27mm



LIMS image no.: 39735681 Cross-polarized. Slide width 27mm



39574601

Acicular plagioclase in the ground mass and euhedral altered Cpx phenocryst. Small spinel is common (black to dark brownish color). Scale bar 1mm.

Extrusive Hypabyssal

Lithology: **aphyric basalt** Observer: JD/YI

Texture: Average grain size modal name: fine grained [366]

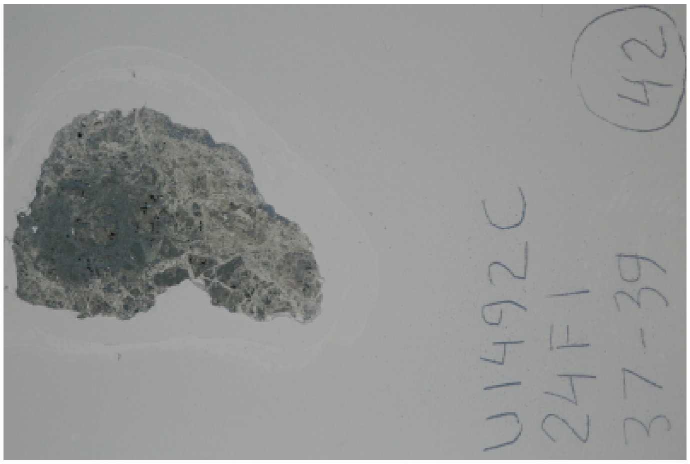
Phenocryst Mineral	Present (%)	Size (mm)	Shape	Habit	Comments
Plagioclase	5	0.5	euhedral		totally altered
Clinopyroxene	20	0.3	euhedral-subhedral		

Groundmass Mineral	Original (%)	Replaced (%)	Size Mode (mm)	Shape	Habit	Comment
Plagioclase	70	100	0.5	euhedral-subhedral		completely altered
Clinopyroxene	5	100	0.1	anhedral		completely altered
Orthopyroxene		100				
Spinel	0.2	n/a	n/a	euhedral-subhedral	n/a	

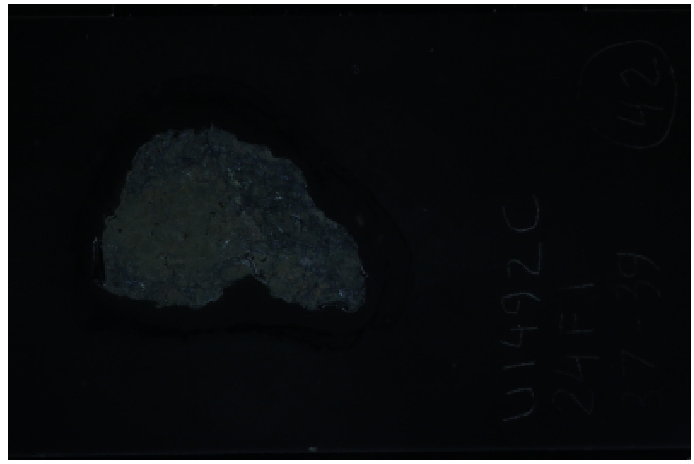
THIN SECTION LABEL ID: **366-U1492C-24F-1-W 35/37-TSB-TS_42** TS no.: 42

Thin Section Summary Description Observer(s): YI

Completely altered doleritic rock. Totally brecciated.



LIMS image no.: 39541501 Plane-polarized. Slide width 27mm



LIMS image no.: 39735701 Cross-polarized. Slide width 27mm

Extrusive Hypabyssal

Lithology: **brecciated dolerite** Observer: YI

Texture: subophitic Average grain size modal name: fine grained [366]

Phenocryst Mineral	Present (%)	Size (mm)	Shape	Habit	Comments
Plagioclase	70	0.5	euhedral-subhedral	tabular	altered
Clinopyroxene	30	0.5	euhedral-subhedral		

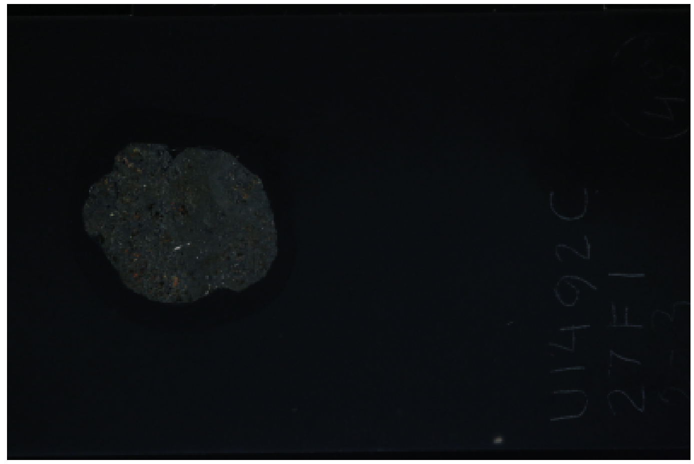
Groundmass Mineral	Original (%)	Replaced (%)	Size Mode (mm)	Shape	Habit	Comment
Plagioclase					tabular	

THIN SECTION LABEL ID: **366-U1492C-27F-1-W 2/3-TSB-TS_48** TS no.: 48

Thin Section Summary Description Observer(s): JP

Pink-brown clinopyroxene-bearing altered volcanic rock. Euhedral-aubhedral titanoaugites with 100-600 micrometer in size occur in association with altered plagioclase laths.

LIMS image no.: 39576241 Plane-polarized. Slide width 27mm



LIMS image no.: 39735851 Cross-polarized. Slide width 27mm

THIN SECTION LABEL ID: **366-U1492C-27F-1-W 6/7-TSB-TS_43**

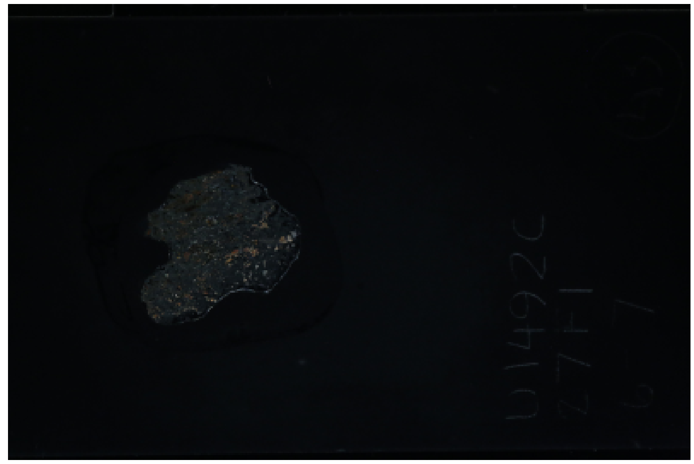
TS no.: 43

Thin Section Summary Description

Observer(s): JP/KJ

Pinkish brown clinopyroxene bearing altered dolerite. Abundant vermicular opaque mineral (ilmenite?)

LIMS image no.: 39541541 Plane-polarized. Slide width 27mm



LIMS image no.: 39735721 Cross-polarized. Slide width 27mm

Extrusive Hypabyssal

Lithology: **dolerite**

Observer: JP

Texture: subophitic

Average grain size modal name: fine grained [366]

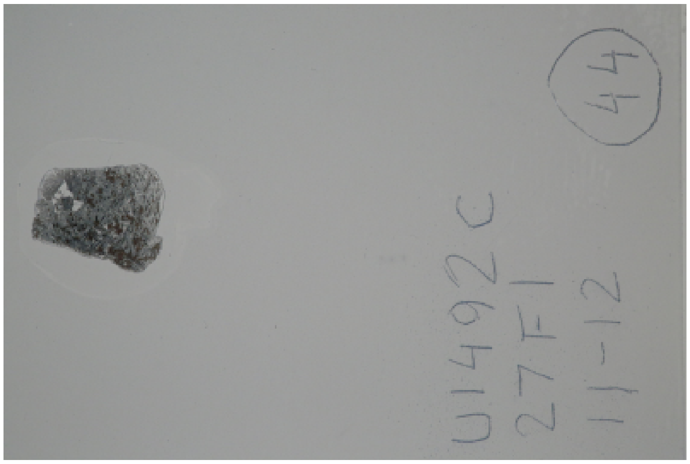
Phenocryst Mineral	Present (%)	Size (mm)	Shape	Habit	Comments
Plagioclase	70	0.6	euhedral-subhedral	tabular	altered
Clinopyroxene	30	0.8	euhedral-subhedral		

Groundmass Mineral	Original (%)	Replaced (%)	Size Mode (mm)	Shape	Habit	Comment
Plagioclase					tabular	

THIN SECTION LABEL ID: **366-U1492C-27F-1-W 11/12-TSB-TS_44** TS no.: 44

Thin Section Summary Description Observer(s): JP/YI/JS/KJ

Altered dolerite. Pinkish brown clinopyroxene is embedded by altered plagioclase laths. Abundant vermicular opaque mineral (ilmenite?)



LIMS image no.: 39541581 Plane-polarized. Slide width 27mm

LIMS image no.: 39735741 Cross-polarized. Slide width 27mm

Extrusive Hypabyssal

Lithology: **dolerite** Observer: JP/YI

Texture: subophitic Average grain size modal name: fine grained [366]

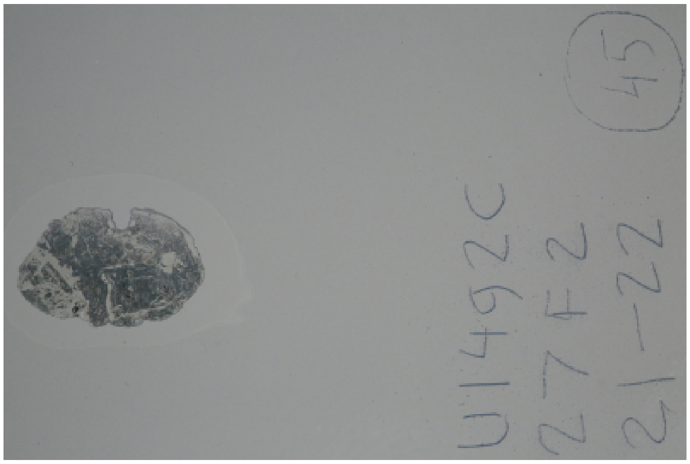
Phenocryst Mineral	Present (%)	Size (mm)	Shape	Habit	Comments
Plagioclase	70	0.4	euhedral-subhedral	tabular	altered
Clinopyroxene	30	0.4	euhedral-subhedral		

Groundmass Mineral	Original (%)	Replaced (%)	Size Mode (mm)	Shape	Habit	Comment
Plagioclase					tabular	

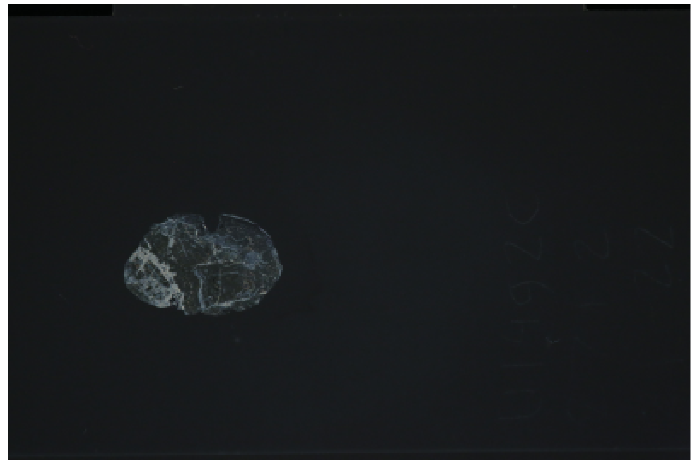
THIN SECTION LABEL ID: **366-U1492C-27F-2-W 21/22-TSB-TS_45** TS no.: 45

Thin Section Summary Description Observer(s): JP/YI/KJ

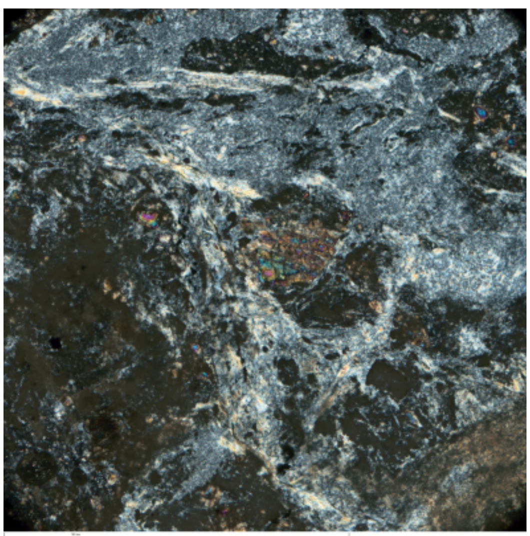
Altered doleritic rock containing clinopyroxene crosscut by veins filled with unidentified minerals. Partly cataclastic.



LIMS image no.: 39528421 Plane-polarized. Slide width 27mm



LIMS image no.: 39735761 Cross-polarized. Slide width 27mm



39531861

Clinopyroxene in an altered matrix. Scale bar 1mm.

Extrusive Hypabyssal

Lithology: **cataclastic dolerite** Observer: YI

Texture: subophitic Average grain size modal name: fine grained [366]

Phenocryst Mineral	Present (%)	Size (mm)	Shape	Habit	Comments
Plagioclase	50	0.3	euhedral-subhedral	tabular	altered
Clinopyroxene	50	0.2	euhedral-subhedral		

Groundmass Mineral	Original (%)	Replaced (%)	Size Mode (mm)	Shape	Habit	Comment
Plagioclase					tabular	

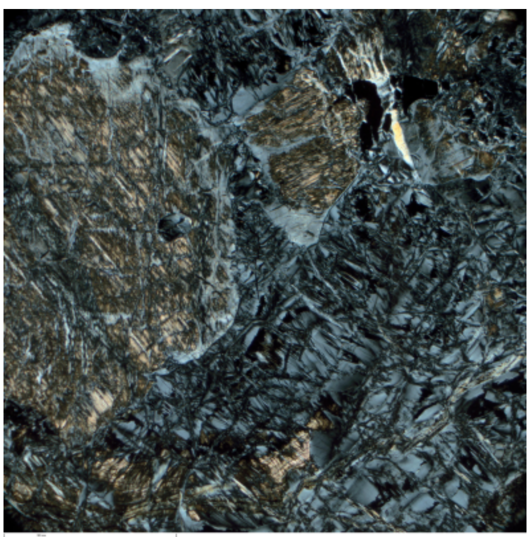
THIN SECTION LABEL ID: **366-U1492C-28G-1-W 0/5-TSB-TS_46** TS no.: 46

Thin Section Summary Description Observer(s): JD/JS

Massive serpentinized harzburgite (100% serpentinized) crosscut by a small vein of serpentine, displaying mesh and bastite textures. Vermicular Chromian spinels with size of observed. Opaque is quite common within the mesh serpentine or bastite. JS: Embayed lobate Opx, No deformation. Strong melt infiltration texture. Spinel associated with pyroxene clusters - protogranular texture

LIMS image no.: 39570361 Plane-polarized. Slide width 27mm

LIMS image no.: 39735791 Cross-polarized. Slide width 27mm



39574741

Mesh serpentine + bastite + opaque + spinel. Scale bar 1mm.

Intrusive Mantle

Lithology: **serpentinized harzburgite** Observer: JD/JS

Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	80	0	100			mesh		
Serpentine	NA	85	NA	NA			pseudomorphic	
Orthopyroxene	15			1.2	NA	embayed	bastite	Embayed lobate Opx, No deformation. Strong melt infiltration texture. Spinel associated with pyroxene clusters - protogranular texture
Spinel	0.5			0.5	NA		vermicular	NA

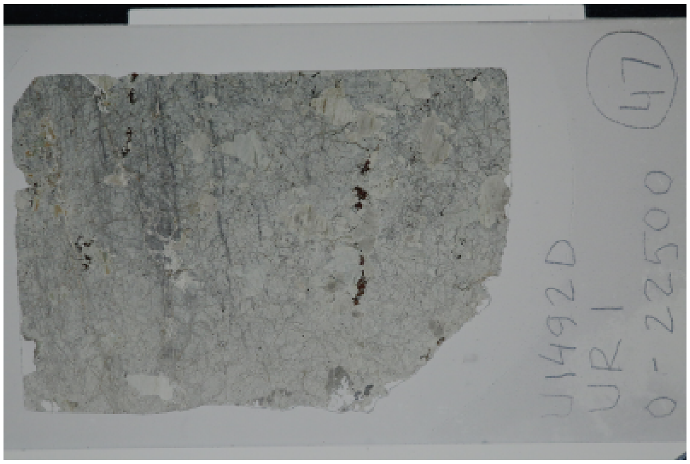
THIN SECTION LABEL ID: **366-U1492D-UR1-SED-TSB-TS_47**

TS no.: 47

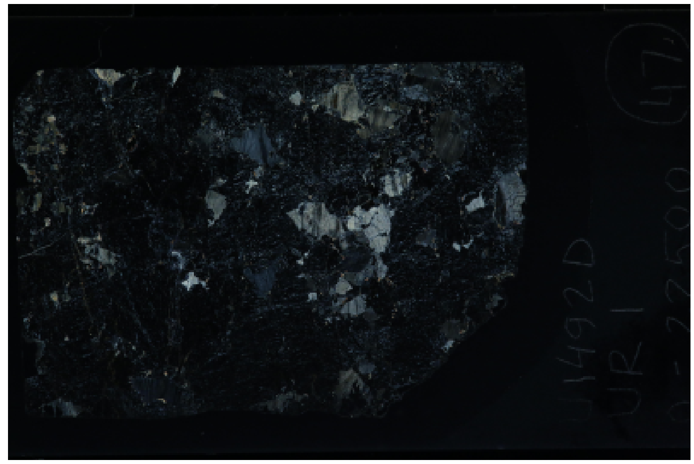
Thin Section Summary Description

Observer(s): BD/JS

Massive serpentinized harzburgite (100% serpentinized) displaying mesh and bastite textures. Some clinopyroxenes and spinels have been observed. JS: Protogranular harzburgite with minor Cpx. Cpx associated with Opx as granule exsolution. Spinel largely in Spinel-Pyroxene clusters. Large Opx seems to have rim of talc (?). Few lobate grains. Cpx-Spinel likely result from garnet breakdown.



LIMS image no.: 39576351 Plane-polarized. Slide width 27mm



LIMS image no.: 39735821 Cross-polarized. Slide width 27mm

Intrusive Mantle

Domain/Rock Comment: Protogranular harzburgite with minor Cpx. Cpx associated with Opx as granule exsolution. Spinel largely in Spinel-Pyroxene clusters. Large Opx seems to have rim of talc (?). Few lobate grains.

Lithology: **serpentinized harzburgite**

Observer: BD/JS

Texture: pseudomorphic

Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	80	0	100			mesh		
Serpentine	NA	100	NA	NA			pseudomorphic	
Clinopyroxene	2			0.15	NA	NA		Small granules on Opx margins, and sometimes within Opx. Granuale Exsolution. Garnet breakdown product?
Orthopyroxene	15			2.3	NA	porphyroclas t	bastite	Large Opx porphyroclasts, mild deformation (kinks, undulatory extinction). Spinel associated with pyroxene in clusters. Granule exsolution of Cpx.
Spinel	100			0.4	NA	holly-leaf	vermicular	NA