

THIN SECTION LABEL ID: **366-U1494A-3F-2-W 27/29-TSB-TS_58**

TS no.: 58

Thin Section Summary Description

Observer(s): WK

serpentinite peridotite cataclasite, protocataclastic with ultracataclastic shear bands; shear bands completely serpentinized, isolated clasts within ultracataclastic shear bands, partly with chlorite,



LIMS image no.: 39730391

Plane-polarized. Slide width 27mm



LIMS image no.: 39730411

Cross-polarized. Slide width 27mm

Sediment**Lithology:** volcaniclastic breccia

Observer: YI

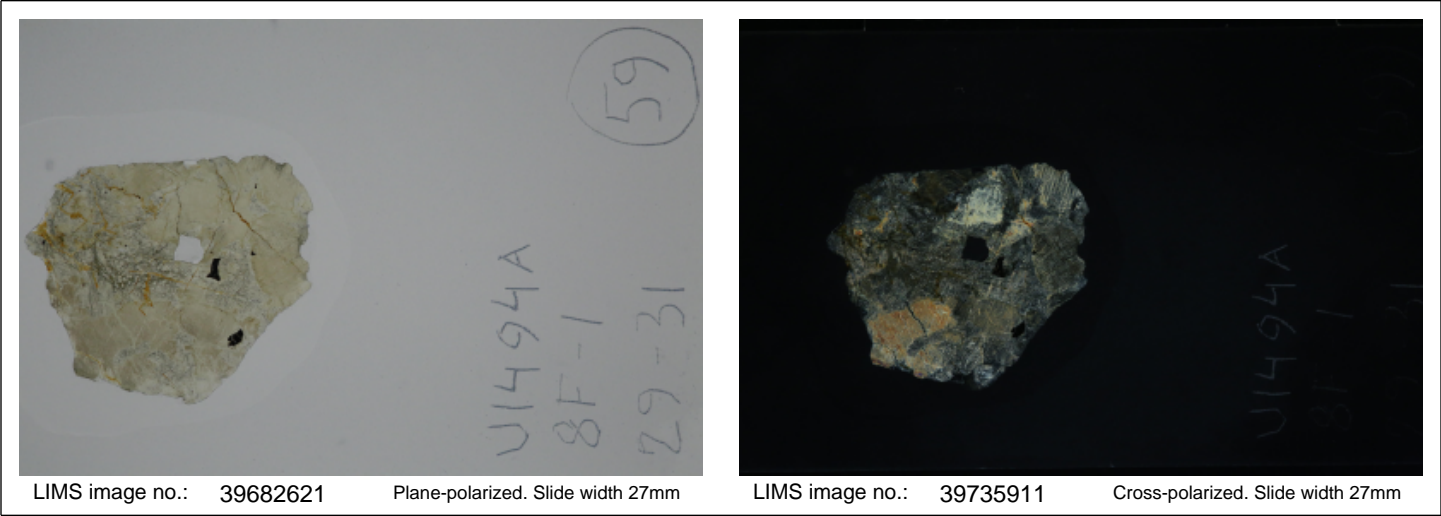
THIN SECTION LABEL ID: 366-U1494A-8F-1-W 29/31-TSB-TS_59

TS no.: 59

Thin Section Summary Description

Observer(s): YI/JS

Olivine-bearing Orthopyroxenite (100% serpentinized). Some large olivine ~3 mm, other fills space between giant Opx. Opx up to 7 mm, mode about 4 mm. Probably derived from vein or dike in harzburgite. The rock is highly recrystallized to serpentine with interpenetrating textures, relicts of pseudomorphic mesh textures and mantle spinel have been observed.



Intrusive Mantle								
Domain/Rock Comment: Opxite vein with accesorry olivine. Olivine fills space between some large Opx grains.								
Lithology: olivine orthopyroxenite serpentinized			Observer: BD/YI/JS					
Texture: nonpseudomorphic			coarse grained [366]					
Mineral	Estimated Original (%)	Present (%)	Altered (%)	Size Avg. (mm)	Shape	Habit	Texture	Comments/Special Features
Olivine	30	0	100	2	subhedral	interstitial		
Serpentine	NA	99	NA	NA			interpenetrating	
Orthopyroxene	69			3	NA	decussate	bastite	Giant Opx dwarfs olivine, only mildly deformed.
Spinel	1			0.2	NA	amoeboid-irregular		NA


THIN SECTION LABEL ID: 366-U1494A-8F-4-W 7/8-TSB-TS_60

TS no.: 60

Thin Section Summary Description


Observer(s): JP/JS, KJ

Plagioclase phenocryst-bearing altered volcanic rock (vitrophyre) crosscut by carbonate veins. The plagioclases are 200 to 900 micrometer in size and partly altered to sericite, phengite or pyrophyllite. Some plagioclase phenocrysts contain devitrified melt inclusions. Chromite occurs as an accessory mineral containing sulfide and melt inclusions. The cryptocrystalline to glassy groundmass contains quench microlites of plagioclase; both are now completely altered.



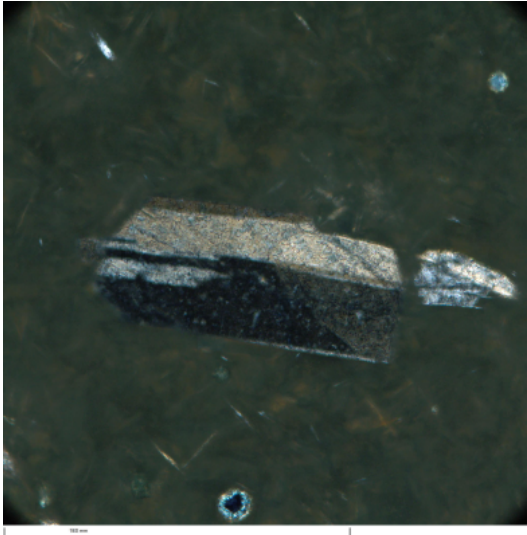
LIMS image no.: 39682861

Plane-polarized. Slide width 27mm



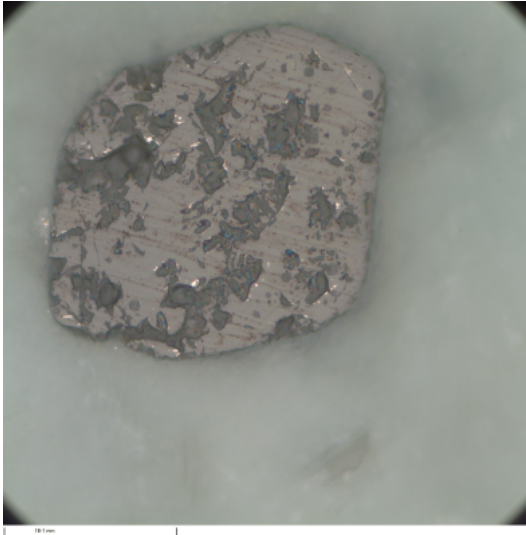
LIMS image no.: 39735931

Cross-polarized. Slide width 27mm



39685291

Tabular plagioclase phenocryst displaying albite twin in an altered fine grained matrix, cross-polarized. Scale bar 1mm.



39685511

Sulfide and melt inclusions in chromite. Scale bar 0.1mm.

Extrusive Hypabyssal

Lithology: sparsely plagioclase phyric basalt clast

Observer: JP, KJ, YI, JS

Texture: vitrophyric

Average grain size modal name: cryptocrystalline [366]

Phenocryst Mineral	Present (%)	Size (mm)	Shape	Habit	Comments
Olivine	1	0.7	subhedral	prismatic	completely altered
Plagioclase	3	0.5	euhedral	tabular	Altered to sericite, phengite or pyrophyllite.
Spinel	0.5	0.2	euhedral-subhedral	equant	Contains sulfide and melt inclusions

Groundmass Mineral	Original (%)	Replaced (%)	Size Mode (mm)	Shape	Habit	Comment
Plagioclase	4	100	0.1		tabular	Quench microlites in glass.

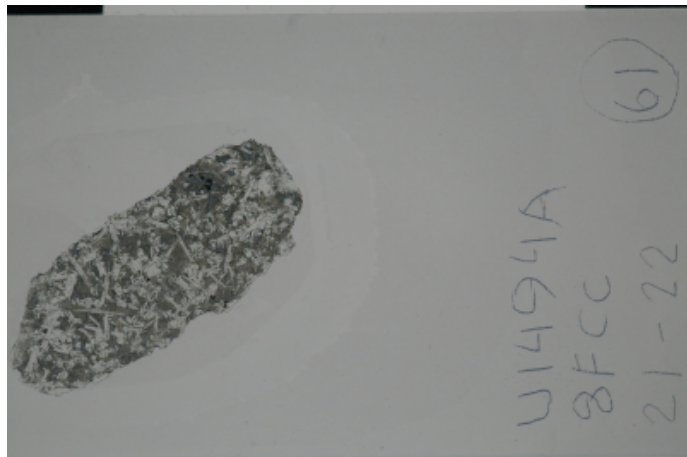
THIN SECTION LABEL ID: **366-U1494A-8F-CC-W 21/22-TSB-TS_61**

TS no.: 61

Thin Section Summary Description

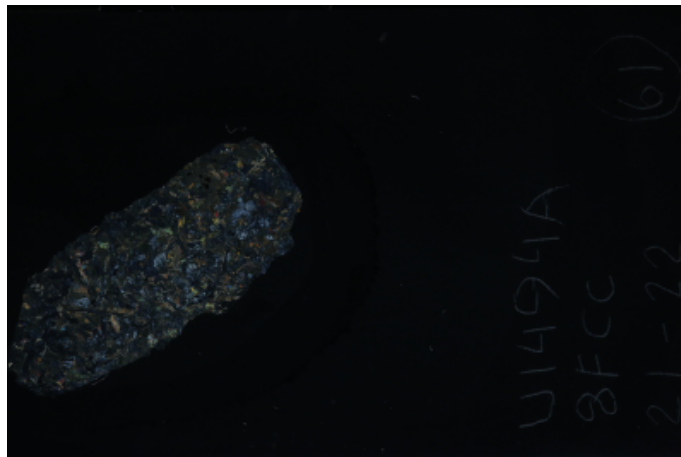
Observer(s): JP/JS, KJ

Serpentinized Olivine-Plag-phyric medium-grained basalt. Euhedral, skeletal olivine with melt inclusions, 0.3 to 1.2 mm across, completely altered to massive serpentine, Plagioclase laths up to 1.6 mm long and 0.1 to 0.4 mm across are completely altered to low Bf phase, possibly clay. Albite twins pseudomorphed by the alteration. Plag also contains melt inclusions. Interstitial Cpx is variolitic, partly altered to fibrous phase with lower Bf, probably amphibole. Oxides look like magnetite. Texture is intergranular to variolitic, intersertal in places (patches of glass now altered).



LIMS image no.: 39726771

Plane-polarized. Slide width 27mm



LIMS image no.: 39726791

Cross-polarized. Slide width 27mm

Extrusive Hypabyssal**Lithology:** moderately olivine-plagioclase phyric basalt clast

Observer: JS, YI, KJ

Texture: variolitic

Average grain size modal name: medium grained [366]

Phenocryst Mineral	Present (%)	Size (mm)	Shape	Habit	Comments
Olivine	10	0.8	euhedral	skeletal	Euhedral, skeletal olivine with melt inclusions, 0.3 to 1.2 mm across, completely altered to massive serpentine
Plagioclase	5	1	euhedral	tabular	completely altered.
Opakes	1	0.2			Magnetite.

Groundmass Mineral	Original (%)	Replaced (%)	Size Mode (mm)	Shape	Habit	Comment
Olivine	10	100	0.4	euhedral	embayed	
Plagioclase	20	100	0.4	euhedral-subhedral	tabular	
Clinopyroxene	50	40	0.6	subhedral-anhedral		Interstitial Cpx is variolitic, partly altered to fibrous phase with lower Bf, probably amphibole.
Orthopyroxene		40				
Fe-Ti Oxide	1	0	0.1	subhedral		

THIN SECTION LABEL ID: **366-U1494A-11X-CC-W 35/38-TSB-TS_62**

TS no.: 62

Thin Section Summary Description

Observer(s): WK

ultramylonite shear zone (talc ?) within serpentinized peridotite (?); shear bands crosscut ultramylonite and shear zone boundary.



LIMS image no.: 39761651

Plane-polarized. Slide width 27mm



LIMS image no.: 39761901

Cross-polarized. Slide width 27mm