

Investigation of Drill Core from HJD001 and HFD001 @ Bass Metals Hellyer Yard

HJD001

0-34.5m Chromite bearing Dunites, possible Ni carbonate @ 13.1m



Contact @34.5m shown above

34.5-85m Chromite poor pale-medium green serpentinite with 3-8% amphibole-carbonate veining, some chl-mag veins @57.5m

85-107m Chromite rich serpentinite with 1-3% Amphibole-chlorite-carbonate veining and a little amphibole-carbonate veining (see below)



107-118.5m Variably chlorite-mag veined serpentinite eg: strongly veined with chl-mag @112-114m



118.5-141m Light-Med green 'sandy' serpentinite, weakly carbonate veined and trace silicification, trace chl-mag veins

141-152.2m Fault Zone with fibrous amphibole and shattered rock fragments (sheared serpentinite)



152.2-167.4m Pale-light green serpentinite with amphibole-chlorite-magnetite in veins and clotty 'magnetite possibly altering chromite?

167.4-176m Medium green less sheared serpentinite with trace amphibole-carbonate veins

176-235m Medium light green serpentinite, variably carbonate-amphibole veined and chlorite-amphibole-mag veined, strongly chloritic fault @218-221m

235-240m Dark khaki serpentinite with 2 vein sets, one at much higher angle (75-80 degrees) to core and one 5 degrees from LCA (see below)



240m-280m Variably carbonate-amphibole-mag veined serpentinite

280-291.5 Serpentinite with possible pyroxene phenocrysts, however unit is still chromite/disseminated magnetite bearing.

291.5-296.5m Fault zone within 'shattered' serpentinite with significant light brown amphibole-carbonate veining. EOH

Overall impression is that the rock unit is probably originally a Dunite that is variably sheared, faulted and veined with amphibole-carbonate +- chlorite +- magnetite, no sulphides were observed.

HFD001

0-12m Weathered brown-buff/pale green serpentinite with fine disseminated chromite



12-58m Serpentinite with variable magnetite and carbonate veining



58-65m Serpentinite with moderate magnetite development

65m-107m Alternatively dark brown (magnetic) and pale green (less magnetic) banded (2-6m) aphyric altered serpentinite? with 1-2% carbonate veining and carbonate alteration throughout the groundmass.



107-219.5m Core Unavailable - missing 'pentlandite bearing intervals including 180.9-182.4, 196.9-197.1, 209.5-209.55.



219.5-344m All apparently the same rock type, moderately-strongly silicified with abundant silica-magnetite and amphibole-carbonate veining. Carbonate alteration is ubiquitous in the matrix of the possibly plagioclase phyric ultramafic unit. Two small 'bronzitite' dykelets are non carbonate altered



Example of magnetite veining at 315m

Overall impression is that many zones have magnetite developed adjacent to the magnetite veined zones including zones away from the apparently EM anomalous 230-250m interval. The probable order of alteration is 1) pervasive serpentinisation, 2) magnetite veining with associated silicification, 3) carbonate veining cross cutting and overprinting and occasionally remobilising magnetite.