

Appendix 4d
NCT006 & NCT007
Lithology Summary Logs

(See Digital File EL9_2005_200605_09_Appendix4d.pdf)



Newcrest Mining Limited

File note

FROM: Nicholas Fitzpatrick

CC: Irvine Hay

DATE: 26th February 2005

SUBJECT: NCT006 summary log

0 - 371m Red-brown-green kspar-he-chl-cb ± alb-ser altered m.g. mod. Feld-phyric moderately foliated rhyolite volcanics. Variations in coherency from coherent to breccia/conglomerate. Alteration moderate and pervasive dominated by reddening (kspar-he), with patchy chl-cb. Common qtz-cb-chl-kspar veins: suspect Devonian.



Photo 1: Example of unit 0 – 371 m

221 - 226m Cream-green ser-weak chl-he altered zone. Core broken suspect fault driven alteration. Weak leached textures suspect after cb.



Photo 2: Example of unit 221 – 226 m

250 - 254m Pale grey-green si-ser-?alb altered zone. Up to 1%py and trace gal, analogous to Henty style. Volcanic textures preserved.



Photo 3: Example of unit 250 – 254 m

321 - 326m Cream-green ser-weak cb-chl altered zone. Core broken suspect fault driven alteration. Includes zone of cb-ser alteration with spherical cb clasts??



Photo 4: Example of unit 31 – 326 m

371 - 405m Green-cream chl-kspars-he altered massive matrix supported monomict lithic rich volcanoclastic conglomerate and lesser sandstone with subangular clasts. Strongly foliated. Alteration typically aligned along foliation. Trace disseminated pyrite.

405 - 443m Red-green kspars-he-chl ± ser altered massive clast supported polymictic volcanoclastic conglomerate with subrounded clasts. Clasts typically reddened feld-phyric juvenile rhyolite volcanics and lesser chl altered mafic ?dacite/andesite volcanics. Trace disseminated pyrite.



443 – 533m Grey-brown chl-he altered aphyric to weakly porphyritic (chl alt. spots) very f.g. rhyolite to ?dacite volcanics or volcanoclastic sandstone. Rare cb-py veins and disseminated py-sph-gal.

- 533 - 541m Brown-cream ser-(cb-chl) altered m.g. volcanoclastic sandstone. Well developed leached textures suspect after cb. Spotty cb alteration. Broken core suspect fault.
- 541 – 562m Red-brown He-chl altered aphyric to weakly porphyritic (chl alt. spots), weakly foliated massive rhyolitic volcanics. Predominantly coherent, minor bx zones. Possible subtle wash of si alteration due to cherty appearance. Common mafic dykes ~30cm with chilled margins, undeformed, suspect syn-post Devonian. Trace disseminated pyrite.
- 562 – 581m Dark grey-green mod. pervasive si-alb-chl-ser altered massive f.g. volcanoclastic ?sandstone. 2 zones (~30cm) of intense almost texturally destructive si alt. containing variable amounts of py-gal-sph. Mod-weak foliation. Cb veins containing sph-gal Devonian? Alteration analogous to Henty style.



Photo #: Example of unit 562 – 581 m. Scale bar is 1cm.

- 581 – 683m Green-grey-brown weakly chl-kspars-he altered very f.g. rhyolitic-dacitic volcanics. Cut by qtz-cb-ser-kspars veins: Devonian. Patchy stronger reddening. Chl alteration spots (~5mm x ~1cm) aligned with cleavage.



Photo #: Example of unit 58 – 683 m

- 663 – 669m Common py-sph-gal in veins and disseminated. Py ~1%. No variation in alteration, weak foliation.
- 683 – 786 Similar or above, slightly more fragmental. Red-brown mod. pervasive kspars-he-chl altered massive matrix supported poorly sorted monomict lithic rich volcanoclastic conglomerate with subrounded

clasts. Clasts of kspar-he altered rhyolitic volcanics. Moderate cleavage preserved. Common qtz-cb-chl veins, irregular and disrupted. Intervals of above coherent volcanics also present. Trace disseminated py.



Photo #: Example of unit 683 – 786m

786 – 792.1 m (EOH) ‘Red Hills’ rhyolite lava, Red-green mod. pervasive kspar-he-ch altered moderately brecciated rhyolitic lava. Kspar alteration of clasts and chl alteration of matrix. Upto and greater than 1% disseminated and qtz-cb-chl vein hosted cpy and much lesser py. NB: cpy>>py.



Photo #: Example of unit 786 – 792 m. Scale bar is 1cm

The most notable feature of this hole is the lack of definitive bedded clastic material. Much of the hole was logged by myself and judged by Ken Morrison as predominantly coherent rhyolitic volcanics with variable degrees of coherency and minor juvenile clastics derived from coherent rhyolitic volcanics. Difficulties arose in differentiating between brecciated coherent facies and a clastic facies due to the strength of alteration and penetrative cleavage. The hole failed to intersect the massive sulphide horizons as well as any black shale as present in the holes above. This may be in part due to more complex structures not yet contained and/or that the horizons simply pinch out and are therefore not present at depth.

DATE: 26 May 2006
TO: Irvine Hay
FROM: Nicholas Fitzpatrick
SUBJECT: Summary Log – NCT007

- 0 – 168m: Thick package of red-cream, kspar-he-chl altered, feld-phyric massive rhyolitic lavas and lesser conglomerates. Feldspar phenocrysts typically medium in size (1-5mm) and moderately abundant. Appear to have varying degrees of coherency, however, predominantly classified as coherent facies. Clasts typically composed of identical material to host. Moderate pervasive alteration occurs locally intensified by veining and/or faulting. Trace amounts of disseminated and cb-qtz vein hosted py-gal-sph.

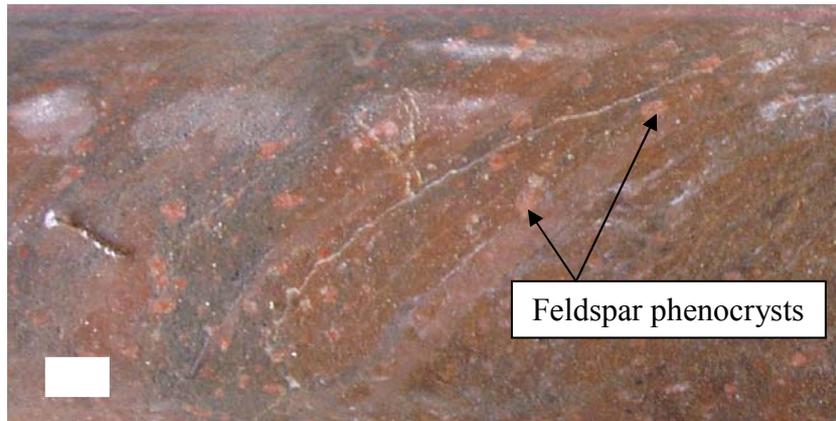


Photo 1: Example of unit 0 – 168 m. Scale bar is 1cm

- 168 – 309m: Dark green-red, mod chl-kspar-he \pm cb altered, massive matrix supported, moderately sorted, juvenile lithic rich, monomict volcanoclastic pebble conglomerates with subangular clasts. Includes intervals of volcanoclastic sandstones and breccias. Suspect derived from coherent source, i.e. unit above. Moderate pervasive alteration occurs with rare patchy cb-ser-alb with no apparent control. Trace (<0.5%) amounts of disseminated and cb-qtz vein hosted py-gal-sph.

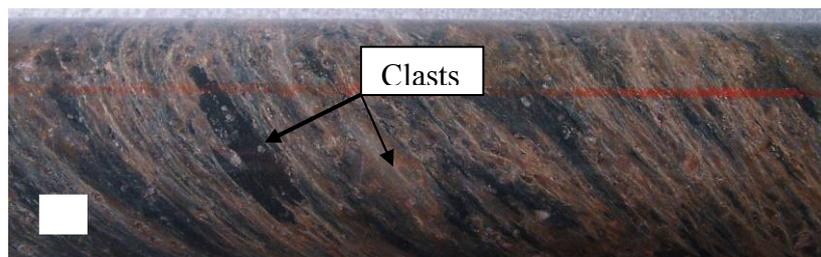


Photo 2: Example of unit 168 – 309 m. Scale bar is 1cm.

- 309 – 562 m: Brown-grey, mod-wk pervasive chl-cb-ser \pm kspar-he altered, feld-phyric rhyolitic volcanics (lava). Feldspar phenocrysts typically medium in size (1-5mm) and moderately abundant in a fine grained groundmass. Included small intervals of juvenile lithic-rich volcanoclastic conglomerates and sandstones. Predominantly weak pervasive alteration. Includes patchy intense sil-ser \pm alb alteration (541-547m), associated with disseminated and qtz vein hosted py-gal and sph (analogous to Henty alteration style). Trace to almost 1% amounts of disseminated and cb-qtz vein hosted py-gal-sph including an occurrence of visible Au.



Photo 3: Example of unit 309 – 562 m. Scale bar is 1 cm

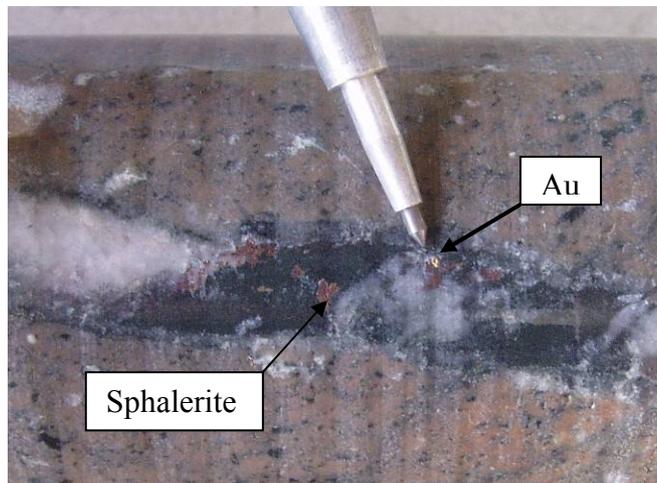
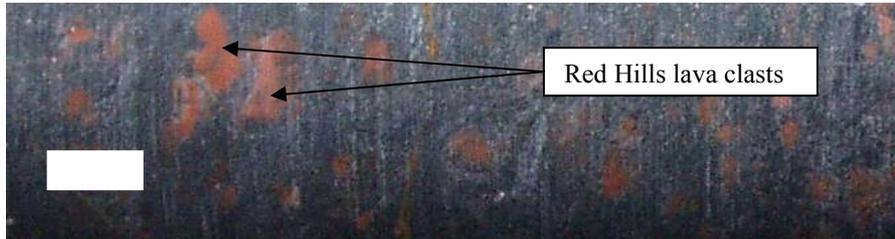


Photo 4: Quart-chlorite-carbonate-sphalerite-gold vein



Phot 5: intense sil-ser ± alb alteration zone (541-547). Note NQ3 core.

- 562 – ~630m: Grey-red, moderately pervasive chl-alb altered, massive aphyric rhyolite/dacite volcanics. Containing patchy irregular subrounded, red moderately kspar-he altered, rhyolite clasts. Suspect clasts of ‘Red Hills’ rhyolite lava. Trace to 0.5% amounts of disseminated and cb-qtz vein hosted py-gal-sph. ~0.5% cpy-py occurs in veins and disseminated adjacent to the contact with the ‘Red Hills’ lava.



Phot 6: Example of unit 562 - ~630 m. Scale bar is 1cm

- ~630 – 719.9m (EOH): Green-red mod-str pervasively chl-kspar-he altered mod. auto-brecciated ‘Red Hills’ rhyolite lava. Mod-strong chl alteration with locally intensified kspar-he alteration associated with milky qtz-cb-chl veins. ≤1% vein hosted and disseminated py-cpy around contact decreasing downhole to trace/none.



Photo 7: Example of unit ~630 – 719.9 m. Note NQ3 core.