311157

Hole No: TCD7
Prospect: Thomas Creek
Section: 369600mE
Co-ordinates: 369600 mE 5815 mN ~220 mRL
Azimuth: 180 °G 167 °M Inclination -45°
EOH: 123.4m
Logged by: Robert Reid
Date commenced: 20/06/96 Date completed: 25/06/96

0.00-17.55m
light green feldspar-augite-porphyritic Diorite. (phenocryst crowded, 1 to 3mm size). Feldspars are locally sericitised with augite being chloritised. Zones of sil(vw)-ks(vw) increase towards the base of the interval. The basal contact is abrupt, however the end of the interval may simply reflect a change in alteration intensity with the following fg/mg appearing microdiorite simply being a reflection of increasing silicification . Py(<1%) overall throughout. Cpy trace overall but greatest concentration reacted in sil-ks altered zones. Late bright light green smectite veining is typically diffuse and matrix pervasive, not phenocryst altering, 3% overall.
Minor Interval
8.60-8.75m cpy(0.5%), dss, py(1%)
13.90-14.70m pervasive ks(w)-sil(m), cpy(tr-0.5%), py(<1%) dss.

17.77-38.90m
light green and pink unit of fg/mg equigranular Microdiorite? (non-porphyritic). Textures largely destroyed by pervasive silicification? Groundmass is fuzzy. Pyrite is variable from trace to 4% over the short intervals. Zones of green tourmaline?-py-cpy occur locally (2%, overall). Generally sil(w?) with ks(w) locally. Epidote veins (4%, overall) are evident on fracture planes, mostly outside areas of tour-py-+/-cpy veining and silicification. Base of interval is a transitional alteration boundary front.
Minor Intervals
26.00-27.10m zone of green (tour/act)-py(5%)-cpy(2%) veining constituting <10%, cpy(<0.5%, overall).
30.00-38.90m ks-sil alteration intermittent(30%) increasing to the end of interval.

38.90-50.20m
pink ks-sil altered feldspar-augite-porphyritic Diorite. Primary textures are largely overprinted by alteration. Minor moderately feldspar-augite-phyric Andesite(/micro-monzo-diorite?), displaying a dark grey groundmass and euhedral lath-like feldspars is evident locally. ks(m), sil(m/s), cpy(<0.5%), py(1%) mostly as disseminated sulphides. Sulphides, especially chalcopyrite, frequently occur in green fibrous(tour/act?) patches/irregular veins. mag(w) to locally moderate. Note ks-sil alteration appears to pre-date cpy-py-tour veining. ks-sil altered zones are not always mineralised.

50.20-61.84m
light green mg/cg Diorite, feldspar-augite crystal bearing. Groundmass texture is near equigranular but still maintains a minor fine grained component(2%). Feldspar crystals(50+%) are 2 to 4mm in size and are commonly sericitised, while augite(30%) forms 3 to 5mm diameter, weakly chloritic and sometimes pyrite replaced crystals. A weak silica overprint at the interval margins is pervasive and feldspar destructive but augite appears little altered by silicification(ch and py altered only). Feldspars in the core of the interval are sericitised. Pyrite (1%) and cpy(tr) occur in disseminated and sulphidic veinlet(<0.5%) form. Interval terminates at an intrusive contact with Andesite/Microdiorite.

61.84-69.57m
light green/grey weakly silicified fg/mg porphyritic Diorite? and minor Andesitic(/micro-monzodiorite?) intrusive. Suspect unit is a feldspar-augite-phyric phenocryst crowded Diorite with a texture destructive silica alteration overprint. Overall sil(w/m) with ks(vw), py(tr-0.5%), cpy(tr), mag(w) Mid part of interval especially contains narrow (<10cm) intense ks-sil(w)-ep(w/m) pervasive domainal alteration zones constituting 3% overall.
Minor intervals
61.84-62.11m dark grey augite-feldspar-phyric Andesitic(/micro-monzodiorite?) intrusive, moderately porphyritic with sharp contacts. Augite is evident as weak to moderately chloritised phenocrysts of 2-6mm, whereas cream feldspars are 1-2mm in size.
62.11-62.81m ks(w), sil(m), py(1%), cpy(0.5%) pervasive ks-sil alteration weakens away from contact.

69.57-70.40m
light green mg Diorite(/microdiorite) intrusive. A near equigranular/close packed diorite texture is evident from 69.65 to 70.40m. Displays probable chilled, weakly augite-phyric margin with groundmass grading to fg over the basal 15cm. However both contacts are difficult to discern. Mag(w/m) in disseminated grains to 2mm with py. Sericitised (w) feldspars. Contains light brown mineral flecks(siderite?). Py(1-2%), cpy(0.5-1% overall) dss.

70.40-77.71m
ks-sil altered porphyritic Diorite?. ks(w)-sil(m) is pervasive texture destructive. cpy(tr-0.5%), py(0.5%), Disseminated sulphides have intermittent distribution. Ks strongest near upper contact.

77.71-81.05m
light green mg Diorite(/Microdiorite) intrusive. weakly augite-phyric. mag(s). Sil(s) with no ks within interval above at sharp basal margin. Chilled to fg over basal 10cm. Down hole margin is ks -sil altered with unit probably continuous up to contact with brown Microdiorite. Overprinting alteration styles are apparent. Silicification appears to be associated with diorite intrusion (+/-cpy?) whereas Microdiorite has associated ks-sil alteration at the margins overprinting the diorite. potassic to weak phyllic overprint.

Minor intervals
77.71-80.25m cpy(tr-0.5%, locally), py(2%), dss
80.25-81.05m ks(w/m), sil(m), py(4%, dss), cpy(tr)

81.05-81.50m
brown feldspar-augite-moderately porphyritic Micro-monzodiorite. This unit is strongly magnetic, featuring a very fine grained groundmass with feldspar(25%) and augite(15%). Feldspar is pinkish in colour(ks altered?), evident as euhedral laths of 2 to 4mm. Augite phenocrysts of 2 to 5mm are often weakly glomerophyric and replaced by pyrite locally. Py(1%) often as sub-rounded disseminated aggregates of fine grained crystals to 3mm diameter. Both margins display broken core with ks-sil+/-ch altered host. mag(s)

81.50-93.80m
light green feldspar-augite-mod/str-phyric Diorite with w/m silicification throughout, reaching strong locally. Ks(vw) but locally strong where silicification is strong. Texture generally destroyed but locally evident, eg @~92.5m. The observed alteration distribution in the lower end of the interval may reflect zonation about the following Micro-monzodiorite intrusive, with ks-sil-mag then sil-ser zoned outward from the intrusives margin.
Minor intervals
81.50-82.52m ks(w), but moderate over upper 40cm where sil(m), cpy(0.5%), py(4%) disseminated.
86.00-86.70m cpy(tr-0.5%), py(0.5-1.0%), ks(w/m), sil(m)
87.25-87.85m dark grey mod-porphyritic feldspar-augite-andesitic intrusive? Gradational/unclear margin may simply represent mag alteration of the host. py(0.5%), mag(s).
90.60-92.30m pink(& light green) ks-sil-ser altered zone with moderately augite-feldspar-phyric andesitic texture visible locally and extending beyond this interval to >93m. Interval begins with ks(vs), overall ks(m). Sil(m/s) and ser(w/m) in mid interval. Py(1%)-cpy(~0.5%) disseminated in scattered zones, particularly at ends of interval. The sericitised mid part of the interval is sulphide poor.
93.56-93.80m ch(w/m)-ks(m)-sil(m/s) increasing to end of interval, py(1%, increasing to 3% at end).

93.80-96.37m
brown/pinkish feldspar-augite-mod-phyric Micro-monzodiorite. feldspar are 1-2mm, smaller than within the typical Micro-monzodiorite intrusive. Both margins are chilled over 15 to 20cm, but the lower margin is intruded by a coarser phenocryst size, feldspar-augite-phyric andesite intrusive with aphanitic groundmass (95.52-96.37m). Both contacts display ks-sil alteration within the host. Cpy appears to be concentrated at either end of the interval, being strongest where chilling becomes first apparent. At both ends cpy reaches 0.5-1% over 15cm. Overall cpy(<0.5%), py(1%), mag(s).

96.37-118.40m
light green feldspar-augite-mod/str porphyritic Diorite. Silicification is weak to moderate throughout with porphyry texture only weakly evident locally. Domainal patches of ks(w/m)-sil(m) are evident, particularly at interval ends where ks(m/s)-sil(s). Yellow smectite veinlets are sparse but two veins of 2cm and 10cm width are evident at 104.52 and 115.5m respectively. Outside minor intervals, cpy(tr), py(0.5%). A pink/crm clay? mineral is abundant as disseminations beyond 115.30m.
Minor intervals
96.76-98.38m ks(w/m) to ks(s) at start of interval. Cpy is intermittent in disseminated and vein form, with concentration <0.5%, but reaching 2% over 10cm near the upper contact. Late irregular green ch? veins constitute <1%. Late apple green ep-smectite? veins 3%, ep(w), overall mag(w).
98.88-106.60m cpy(tr) is intermittent and clearly late, often evident within tour-py veinlets on fracture planes and also as disseminations. Tour-py veins appear to increase lower in the interval.
@110.19m tour-sil vein displays slickensides with possible dextral movement indicated by very weak ramps.
@111.6m similar to above but clearly sinistral movement.
115.00-115.30m psuedobreccia texture with sil-green tourmaline irregular vein fill (40%) between pink ks-sil "clasts". Cpy is hosted by tour-sil alteration. cpy(<0.5%), py(0.5%)
116.80-118.40m cpy(0.5%), py(0.5%).

118.40-120.30m
brown feldspar-augite-phyric Micro-monzodiorite. Brown aphanitic groundmass. late green sil-ep veins constitute approximately 1% and crosscut pervasive/veined ks alteration zones locally. Chalcopyrite has variable disseminated distribution, locally reaching 1% over upper 20cm. Overall cpy 0.5%, py(0.5%). Zonation of sulphides is apparent with cpy:py ratio of 2:1 at margins and locally within, whereas elsewhere ratio is 1:3. Chalcopyrite occurs as disseminations and within light green ep-sil? veins that crosscut diffuse ks veins.

120.30-123.40m
pink and greyish/light green feldspar-augite-porphyritic Diorite. Silicification is w/m throughout with py 0.5% overall.
Minor interval
120.30-121.85m ks(m) grading to ks(w) down hole. sil(m), cpy(tr), py(0.5%).

EOH @ 123.40