

NEWMONT PETROLOGY REPORT CATALOGUE

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Report #	Author	Date	Work	Geo	Prospect				Notes	Arthur Hills
Petrology #	Count	ID		Type	NFMSample #	From	To	Easting	Northing	Description

Arthur Hills

P8042	PO	0/10/2000	SH	Arthur Hills						
P06671	1	AHAC16	DC	78	81	213600	7665702	Not transported overburden as defined but consists of 3 chips of coarse to very coarse hydrothermal quartz with minute fluid inclusions, also rare small inclusions of tourmaline and muscovite.		
P06672	2	AHAC16	DC	42	45	213000	7605702	25% limonitic cement, Grains - average size 0.5mm (range 0.1-3mm), 30% quartz, 30% K-spar, 5% plagioclase, 7% detrital muscovite, 10% composite feldspar-quartz.		
P06673		AHAC25	DC	27	30	793998	7630495	35% limonitic cement. Grains av 0.25mm (range 0.1-3), 30% quartz, 25% K-spar, 5% plagioclase, 4% detrital muscovite, <5% composite feldspar-quartz. Finer, Better sorted equivalent of P06672.		
P06674	4	AHAC26	DC	75	78	793995	7634750	40-60% lateritic, minor kaolin cement. Grains av 0.2mm (range 0.1-1.5). 15-20% quartz, early lateritic nodules in later lateritic cement. Essentially laterite.		
P06675	5	AHAC27	DC	18	21	775000	7636300	Completely weathered/supergene altered in-situ bedrock (regolith). No quartz. Essentially smectite +/- carbonate replicas after coarse random former amphibole or pyroxene, within a matrix of ultrafine, indefinite kaolin-minor admixed carbonate replacing ex-plagioclase. Veinlets of supergene carbonate, accessory disseminated opaque oxides, with original primary distribution seen on polished section to be oxidised primary magnetite. Interpreted as original dolerite (undeformed) completely supergene-altered.		
P06676	6	AHAC28	DC	3	6	775000	7636850	Intensely ferruginised massive kaolinitic rock, minor scattered fine residual micas, including decussate masses, nil/negligible quartz. Basically laterite. Not within normal sandy overburden, but possibly a laterised ferruginised supergene clay layer.		
P06677	7	AHAC31	DC	3	6	775000	7642500	In-situ bedrock (regolith). Massive medium to coarse grained aggregate of primary or metamorphic quartz mosaic (50-60%), minor, random muscovite and oxidised biotite (10-15%), minor completely kaolin-altered feldspar in one chip up to 10%. Accessory tourmaline, trace zircon. Possible granitoid but fibrous sillimanite in quartz in one chip to suggest a possible high grade metasediment (No equivalent elsewhere in this Baron Prospect suite, but may compare with P06682 at Atlee Creek.		
P06678	8	AHAC34	DC	6	9	775000	7644900	Kaolin matrix in 2 chips, 60%. Laterite matrix in 1 chip 60%. Grains av 0.4 (range 0.2-1 mm), 35% quartz, 1-2% detrital muscovite.		
P06679	9	AHAC34	DC	9	12	775000	7644900	80-85% matrix. Grains av 0.8mm (range 0.1-2.5), 15-20% quartz. Very extensive (clear) kaolin matrix (of several generations). Included quartz grains very corroded.		
P06680	10	AHAC36	DC	15	18	775000	7645100	70-80% matrix. Grains av 0.5mm (range 0.1-1mm), 25-30% quartz. Like P06679 but more quartz grains, less kaolin matrix.		
P06681	11	AHAC46	DC	27	30	775000	7645700	Cement 25% coarse decussate limonitic (ex-micaceous). Grains av 1.0mm (range 0.1-0.25mm) 50% quartz (many composite grains), 10-15% detrital muscovite, high concentration of quartz and muscovite (now kaolinised). Probably very close to bedrock, but ex-feldspar completely altered.		
P06881	12	AHAC1	DC	72	75	192025	7591250	40% limonitic cement. Grains av 0.35 (range 0.1-1mm), 40% quartz, 5-7% K-spar, 1-2% plagioclase, 3-5% detrital muscovite, 5% quartz-muscovite composites, 5% laterite particles. Oxide grains variably limonitic/leucoxenitic, haematitic.		
P06882	13	AHAC2	DC	57	60	191960	7592500	Cement 10-15% limonitic. Grains av 0.5mm (range 0.1-1.5mm), 60% quartz, 15%K-spar, 5% plagioclase, 3% detrital muscovite, 5% fragments of sericite. Kaolin cement notably minor.		
P06883	14	AHAC3	DC	57	60	192035	7593500	Cement 15-60%. Grains av 0.5mm (range 0.1-0.8mm), 10-50% quartz, 5-15% K-spar, 1-5% plagioclase. 2 chips, very silty kaolin also fine muscovite-rich. One chip like P06882.		

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P06884	15	AHAC5		DC		6	9	192075	7596000	Cement 20%. Grains av 0.5mm (range 0.1-2.5mm), 40% quartz, 35% K-spar, 5% plagioclase, 2% detrital muscovite, 5% quartz-sericite fragments. Anomalously feldspar-rich. Sericite alteration in some coarse quartz may be hydrothermal.
P06885	16	AHAC5		DC		30	33	192075	7596000	One chip of overburden (same as P06681 - abundant residual angular quartz grains in kaolin cement which is quite intensely limonitised. Two chips of coarse vein quartz, apparently hydrothermal, randomly inequigranular, microbrecciated, strongly stressed and irregularly recrystallised, incorporating minor, shredded-schistose fine muscovite.
P06886	17	AHAC6		DC		84	87	192297	7597300	30% limonitic cement. Grains av 0.5mm (range 0.1-2.5mm), 50% quartz, 15%K-spar, 3%plagioclase, 3% detrital muscovite, 5% sericitic fragments, quartz-muscovite fragments.
P06887	18	AHAC6		DC		87	90	192297	7597300	40-50% limonitic cement. Grains av 0.4mm (range 0.1-1mm), 40% quartz, 10-15% K-spar, 5% plagioclase, 1-2% detrital muscovite.
P06888	19	AHAC8		DC		24	27	192045	7611630	One chip 15% limonitic cement. Grains av 0.8mm (range 0.1-5mm), 30% quartz, 35% K-spar, 7-0% plagioclase, 10% quartz-feldspar-quartz-muscovite composites. Second chip, matrix 75% of patchy micro-cryptocrystalline supergene calcite (calcrete) with minor intricately mixed kaolin. Minor angular, residual quartz grains (15%) to 1.5mm randomly scattered. Identified as kaolin-rich calcrete. Unique in this Kaiser suite.
P06889	20	AHAC9		DC		39	42	192001	7613397	35% cement. Grains av 0.4mm (range 0.1-1.5mm), 20% quartz, 15% K-spar, 3% plagioclase, 15% detrital muscovite, 15% numerous quartz feldspar composites. Abundant fine muscovite in kaolin cement.
P06890	21	AHAC15		DC		27	30	212998	7604000	Two chips - Massive, apparent primary igneous fine (0.3mm) to medium grained (1-2mm) mosaic. Dominant quartz (50%) subordinate and generally finer K-spar (30%), minor plagioclase (5-10%) and numerous scattered extremely fine (0.1mm) accessory grains of biotite, tourmaline, opaque oxide, apatite. Tentatively classified as (potassic) micro-aplitite. Unique in this suite. One chip - of transported overburden, loose packed aggregate of fine to coarse quartz grains (rare feldspar), ubiquitous intergranular limonite permeation but not distinctly kaolinitic as in other chips of typically transported overburden. Somewhat unique (sic) within the whole suite.
P06891	22	AHAC17		DC		54	57	212996	7608700	Two chips composed entirely of massive recrystallised quartz. One apparent hydrothermal vein quartz, very coarse has protomylonitic stress fabric, subparallel fissures healed by stringers of very fine recrystallised quartz. The other chip possibly a former quartzite, equigranular, relict very stressed grains as residuals within intergranular, extremely fine recrystallised quartz. Alternatively may be an ex-quartz rich gneiss, with any other former minerals obliterated (some similarities with mylonitic P06898).
P06892	23	AHAC18		DC		48	51	213008	7610100	Two chips - 50-60% cement. Grains av 0.25mm (range 0.1-1.5mm), 10-20% quartz, 5% K-spar, 5-30% fine detrital muscovite in matrix. Compares with P06883. Four chips - 20-35% limonitic cement 30% quartz, 15% K-spar, 5% plagioclase, 5% detrital muscovite, 10-15% sericitic fragments. Finer and better sorted equivalent of P06884 and others.
P06893	24	AHAC19		DC		87	90	204030	7607201	Three chip - 35-40% limonitic cement. Grains av 0.25mm (range 0.1-1.5mm), 25-30% quartz, 7% K-spar, 3% plagioclase, 3% detrital muscovite. Like P06893. One chip - 15% unoxidised kaolin matrix. Grains av 0.25mm (range 0.1-1.5mm), 35-40% quartz, 30% K-spar, 5% plagioclase, 10% detrital muscovite (some in fine matrix), quartz-feldspar composites. Fine equivalent of P06882.
P06894	25	AHAC20		DC		18	21	203997	7605097	25% cement. Grains av 0.4mm (range 0.1-0.6mm) 30% quartz, 30% K-spar. 3% plagioclase, 10% detrital muscovite integrated in kaolin matrix. Similar to P06882-884 and P06893, unusually well sorted.
P06895		AHAC22		DC		81	84	794000	7602900	50-60% limonitic cement. Grains av 0.4mm (range 0.1-1mm), 30-35% quartz, <5% K-spar. Clay matrix commonly with undulating foliae texture.

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P06896	27	AHAC24		DC		81	84	794006	7618602	Chips of fresh but strongly stressed granitoid dominated by coarse unaltered microcline, composite with stressed, finer quartz, also stringers of apparent recrystallised and mobilised K-spar micromosaic. Minor associated very fine biotite.
P06897	28	AHAC25		DC		72	75	793998	7630495	Chips of completely altered granitoid gneiss (possibly tectonised granite). Has irregular lenses and incipient foliae of (recrystallised) quartz micromosaic (30%) as residuals within irregular grains of former feldspar (35%) which is pseudomorphically replaced by cryptocrystalline kaolin. Also former irregular lenses of pre-existing biotite (35%) completely altered to indefinite decussate oxidised ?hydromica/smectitic clay/kaolin.
P06898	29	AHAC25		DC		78	81	793998	7630495	Two chips - sheared and recrystallised quartz-rich (gneiss or quartzite). Consists of protomylonitic elongate quartz grains about 1mm average size (75080%), incorporating minor feldspar, lesser muscovite, as an integral part of the fabric, apparently relict from protolith. May be a metasediment. Possibly a former granitoid but with unknown explanation for quartz-enrichment/feldspar depletion.
P06899	30	AHAC26		DC		42	45	793995	7634750	40% limonitic cement. Grains av 04mm (range 0.1-1.5mm), 35% quartz, 5-7% K-spar, 5-7% detrital muscovite, 10% lateritic micronodules. Similar to Po6881, P06885 and P06895.
P06900	31	AHAC26		DC		87	90	793995	7634750	One chip - coherent and basically fresh fine quartz-muscovite schist with numerous accessory grains of metamorphic tourmaline up to 0.25mm size. Schistose muscovite through the fine metamorphic-micromosaic locally has a weak micro-crenulation. One chip - Coherent metaquartzite, grain size mostly about 1mm. This one chip has a small remnant of fine muscovite schist with a tourmaline crystal consistent with the other chip described above.