

RIO ALGOM EXPLORATION INC.

DIAMOND DRILL LOG

PROPERTY: Gullbridge

HOLE No.: GR-140

Collar Eastings: 275.00

Collar Northings: 5675.00

Collar Elevation: 0.00

Grid: Main

Purpose: Test Northern Extension of Gullbridge mineralized horizon.

Collar Inclination: -60.00

Grid Bearing: 100.00

Final Depth: 599.54 metres

Logged by: S.Sears/M.H.Lenters

Date: Aug. 23 to Sept. 4, 1990

Down-hole Survey: Tropari

FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS				
							Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba (ppm)	
3	4.57	OVERBURDEN									
4.57	101.22	PRECIPITATED RHYOLITE AND QUARTZ-SERICITE SCHIST (SHEAR FOLIATED RHYOLITE)									
		- variably coloured light to medium grey schist to brownish red-orange to purplish rhyolite									
		- the rhyolite is massive, very fine-grained to fine-grained and commonly contains up to 5% small (1-2 mm) feldspar phenocrysts and rare quartz phenocrysts in a very fine-grained matrix									
		- dominantly rhyolite sections: 48-78 m; 95-137 m; 145.3-162.5 m; 166.5-196 m; 211-216.5 m; 227.5-235 m; 269-283.5 m									
		- dominantly qtz-ac schist sections: 4.57-48 m; 78-95 m; 137-145.3 m; 162.5-166.5 m; 196-211 m; 216.5-227.5 m; 235-269 m; 283.5-301.22 m									
		- the qtz ac schists are weakly to strongly foliated and boundaries with bordering rhyolite range from gradational over 0.5-1 m to sharp knife-edged contacts									
		- overall, the foliation within the qtz-ac schist is consistently below $\approx 45^\circ$ CA; the top ≈ 280 m has a foliation that ranges from $0-5^\circ$ CA to $30-35^\circ$ CA; $30-35^\circ$ CA is the dominant foliation direction but foliations subparallel to the CA are fairly common; the lower ≈ 20 m has a moderate to strong foliation at $\approx 45^\circ$ CA; locally throughout the unit, the foliation is crenulated									
		- the unit is non-magnetic									
		- overall, the rhyolites are generally unaltered but can be locally weakly sericitized especially in gradational contact zones with schist sections; the rhyolites are cut by thin (1 mm to 1 cm) epidote veinlets (0-20%) - the top ≈ 100 m, the ep veinlets sometimes have a 1 mm to 1 cm pinkish-orange halo on either side - possibly a k-spar rich zone; the ep									

		ASSAYS					
FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	Ni (ppm)	Cu (ppm)
		veinlets below ~ 100 m have rare k-spar halos; some sections of the rhyolite that are orange in colour may also be weakly k-spar altered				Pb (ppm)	Zn (ppm)
		- the qtz-sc schists are variably altered overall, ranging from moderately to strongly sericitic (upper and bottom sections of the unit) to weakly chloritic to occasionally cordierite altered - the most prominent alteration zones within the unit are as follows:				Ba (ppm)	
		- 26.50-31.50 m - weak to moderately sericitic zone with weak, vague (3-10%) cordierite spotting					
		- 37-37.50 m - contact zone between qtz-sc schist and rhyolite containing ~ 5-8% small (<0.5 mm) black blebs (chlorite?) disseminated through the rock (around this zone there are other isolated areas with the same alteration, but not always at contacts between schists and rhyolites)					
		- 50-70 m - section of purplish rhyolite containing 5-10% thin (hairline to 1 cm) sp veinlets, some with pink-orange (k-spar) alteration halos around them; orientation range from subparallel to subvertical to CA					
		- 82.50-85.00 m - a weakly chloritic zone within the qtz-sc schist containing 0.5-2 cm elongate ovoid crystals or fragments; most fragments? are sc-rich with an elongate qtz core (axiolitic texture) whereas some are pinkish in colour and appear to be a felsic volcanic; the increase in abundance down the thin zone (10-15%) near top to ~ 60-70% near the bottom; none of the fragments? are linked by a thin sc bridge; possibly an altered crystal-lithic tuff section - more abundant fragments near the lower part may indicate that top is uphole?					
		152.75-153.55 m - moderate to strongly sericitic rhyolite; this section is unfoliated (i.e. not a qtz-sc schist)					
		202.10 m - a 1-1.5 cm wide amphibole and qtz vein with a variable (0.5-2 cm) k-spar halo (this is within a rhyolite within a qtz-sc section)					
		219-223 m - a mixed qtz-sc schist and rhyolite zone that contains 1-5% vague light brown to dark green, up to 6-7 mm wide cordierite spots; some spots may be tiny remnants of					

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						WIDTH	Co (ppm)	Pb (ppm)	Zn (ppm)	Ba (ppm)
		rhyolitic rock								
		275-283 m - zone of weakly to weak-moderate k-spar? alteration within a rhyolite section; the zone contains 10-20% qtz and/or ep veinlets and is moderately brecciated and locally sheared subparallel to CA								
		283-381.22 m - section of qtz-sc schist which is moderately to strongly sericitic; the top ~ 10 m contains very little chlorite whereas the lower ~ 9-18 m contains weak to moderate chlorite alteration in conjunction with the sc								
		- the unit as a whole contains ~ 5-15% qtz:ep:calcite:amphibole veinlets; the veinlets are generally planar and range from subparallel to subvertical to CA; they range in thickness from hairline to 2-3 cm wide; the rhyolite sections contain the bulk of the veining (10-20%) whereas the schist contains ~ 6 to locally 10%; the rhyolite is much more brittly fractured, possibly accounting for the more abundant veining; there are also a few large (up to 20-40 cm) granitic? veins cutting this unit								
		- local possibly autobrecciated zones are visible within some of the rhyolitic sections (i.e. ~ 8-10 m, 14-15.8 m, 156-157 m)								
		- there are some fault breccia and gouge zones within the unit - at ~ 42.70 m there is a rubbly zone (~ 50 cm) with numerous qtz-calcite veins cutting subparallel to CA, and the fractures are slightly sericitic and chloritic; this gouge separates a sericitic schist section from a rhyolitic section								
		- 61.50-61.60 m - 10 cm fault gouge, epidotized with qtz fragments; contacts @ ~ 45-50° CA								
		- 172.00-172.35 m - fault gouge with rhyolite and qtz-sc schist fragments in a qtz:ep-rich matrix; both the upper and lower contact of the gouge are @ ~ 45° CA								
		181-186.50 m - weak to intensely brecciated zone containing mostly rhyolite with minor qtz-sc schist; the rock within the brecciated zone is still fairly competent even in the intensely brecciated area; the breccia is healed by thin qtz:ep veinlets; ~ 2m above this zone is a k-spar altered schist								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS				
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba (ppm)
		- no visible amphiboles throughout the unit - the core is generally quite competent with the core retrieved generally as 10-50 cm pieces; few rubbly zones over 5-10 cm - lower contact with a fault zone is faulted and sheared @ = 10-15' CA; the overlying schist appear to be gradational into the underlying chloritic fault zone.								
301.22	302.72	FAULT (SHEAR BRECCIA) ZONE								
		- dark green to greyish green; fine-grained chloritic matrix containing discontinuous cherty bands and/or fragments; also within this zone are rhyolite fragments or veins which parallel the foliation - the unit is shear foliated and brecciated; foliation is @ = 10-15' CA and is defined by numerous chloritic fractures (slips); the bottom half is more brecciated than sheared - the unit is moderately magnetic where cherty fragments occur and non-magnetic elsewhere - the unit is strongly chloritic and contains weak to moderate epithermal alteration (as veinlets and matrix component) especially within the bottom half; possible cordierite spotting in a large rhyolite fragment? = 10 cm above the lower contact - trace to minor py and trace chalcopryrite as thin flakes along some shear surfaces - top half of unit is extremely broken and the lower half is relatively competent - lower contact is sharp @ = 20' CA with the underlying crystal tuff.								
302.72	307.08	CRYSTAL TUFF								
		- medium grey to greenish grey; fine-grained ash matrix containing 10-20%, 1-3 mm quartz eyes; the quartz eyes are rounded and bluish and set in a matrix of qtz-m: chl and bi; the unit is weakly to moderately sheared @ = 20-30' CA - the unit is non-magnetic								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS				
						WTDN	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba (ppm)
		- the unit is moderately pervasively sericitized comprising most of the matrix (along with f.g. qtz) around the bluish qtz eyes; there is also weak to weak-moderate biotite and chlorite alteration; possible weak cordierite spotting over ~ 10 cm at the upper contact - minor thin (hairline to ~ 1 mm) discontinuous reddish-orange Fe-carb? veinlets and rare thin calcite veinlets (both are more prominent near the upper contact) - no visible sulphides - core is very competent - lower contact is somewhat gradational and difficult to discern; possibly at a high angle to CA (~ 75° CA) but because the foliation in underlying unit is subparallel to CA, the contact may parallel this foliation.								
107.00	109.00	INTERBEDDED CHLORITIC PELVIC TUFF AND RED CHERT	200357	108.00	109.00	1.00	75	34	100	400
		- medium to dark grey to green to reddish green (in cherty areas); fine-grained with locally ~ 100 1-3 mm cordierite? crystals; the rock is banded (i.e. red chert layers) at ~ 0-10" CA - the upper and central section of this unit also contains sc-rich bands which parallel the banding - the chloritic section is probably an altered tuff due to the presence of cordierite; the red chert occurring in the last ~ 80 cm is probably just one 1-2 cm wide cherty band close banding subparallel to the CA - the rock is non-magnetic within the chloritic tuff sections but moderately to strongly magnetic around the thin red chert section - the rock is strongly chloritic except the red chert bands are not chloritic; the upper 1.2 m contains sericitic bands (which may be associated with the quartz veining) contain 5-20% cordierite porphyroblasts which now appear to be sericitized; as the porphyroblast move into the chloritic zones, the cordierites are altered to chlorite - few 1-3 cm wide qtz veins paralleling the foliation in the upper 1 m - the chloritic tuff section contain no visible sulphides but								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS				
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)	Fe (ppm)
		the thin chert layers may contain up to ~5% v.f.g. disseminated py and/or po								
		- the core is broken, generally parallel to the banding								
		- lower contact is sharp and conformable @ ~5-10' CA with the underlying schistose crystal tuff.								
109.00	335.20	CRYSTAL TUFF								
		- medium to dark greyish green upper half and light to medium greenish grey lower half; fine-grained to medium-grained crystal fragments up to 1-2 mm in width								
		- top half (down to ~323 m) is weakly to moderately foliated @ 0-10' CA with avg 10-15' CA; 1-3 cm red chert band (@ ~25' CA) at 419.43 m; the chert is moderately to strongly magnetic; the lower half (from 323 m to end of the unit) is non to weakly foliated @ similar angles to the foliation as within the upper half								
		- overall, the unit contains up to ~5% 1-3 mm blue qtz eyes and lesser light brown feldspar crystals; the crystals are more "nebulous" (vague boundaries) in the upper half but more obvious in the lower half								
		- the unit is non-magnetic except for few small sections which are very weakly magnetic; the thin chert is moderately to strongly magnetic								
		- up to ~323 m the rock is weak to moderately chloritic and sericitic with weak biotite alteration; sericite is the dominant alteration mineral but they all act as matrix to the minor qtz crystal fragments that are present; there is also some possible weak cordierite spotting within the upper ~10 m								
		- the lower section (below ~323 m) contains only weak chloritic and sericitic alteration; there is minor epidote alteration; epidote occurs as veinlets up to 2-3 mm wide; the lowermost 10-40 cm contains 5-10% cordierite spots; the cordierites have ragged ends and appear to be chlorite altered; they are up to 0.5-0.8 cm wide								
		- overall, there is 5-7% planar, up to 2 cm wide, qtz veining; the last ~5 m contains up to 15-20% qtz veining (flooding); the								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS				
						WIDTH	Co (ppm)	Pb (ppm)	Sn (ppm)	Ba (ppm)
		veins are commonly irregular and broken; within this zone, there are also minor reddish orange Fe-carb veinlets and thin ap veinlets								
		- no visible sulphides - the core is very competent - lower contact is obscured by a 7-8 cm qtz flooded section which truncates the banding in the underlying chert(?); the weak foliation in the crystal tuff parallels that in the underlying chert on the underside of the obscured contact.								
335.20	340.02	BRECCIATED FELSIC ROCK (RHYOLITE OR CHERT AND MINOR TUFF)								
		- light to medium greyish purple to gray; fine-grained; very felsic in composition - mostly qtz and ac; thin red chert @ 335.45 m (= 2 cm wide) - the unit is locally banded (laminated) from 0-45° CA with the more dominant banding @ = 35-40° CA; - the more sericitic sections are weakly foliated @ = 30-35° CA with some of the foliation being contorted and folded; the banding and foliation are more continuous in the upper 2 m where the unit is less brecciated - the unit is non-magnetic except for the thin reddish chert band near the upper contact - weak to locally moderate sericite alteration and possibly a very weak chloritic alteration; the lower ~ 3 m is quite brecciated (more so than the upper section) and contains 5-15% 0.5-3 cm wide discontinuous qtzchrl (± calc, Fe-carb) veins; also some thin (hairline to 1 mm) ap veinlets - these ap veinlets cut across the qtz veins and across the brecciated texture; there are a few thin (up to 5 cm) "bands" of cordierite spots which appears to be associated with more cherty-looking intervals - no visible sulphides - fairly competent core - lower contact is sharp and intrusive @ = 35° CA.								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS				
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba (ppm)
348.82	349.10	MAFIC DYKE								
		- medium to dark green to greyish green; fine-grained; becomes slightly more grainy in the interior of the dyke; massive - moderately to strongly magnetic - the unit is hard and possibly weakly silicified; it is also weakly chloritized as evident by the chloritic fractures; there is 5-8% hairline to ~ 1 cm epidote:qtz veining; they range from planar to irregular in shape and most commonly cut the core @ large angles to the CA; the vein systems frequently contain angular wallrock fragments - minor py occurring as f.g. dissems and as crystals along some chlorite fractures - core is fractured but moderately competent; few 5-10 cm rubbly zones - lower contact with rhyolite is sharp but highly epidotized @ ~ 30° CA; the upper ~ 40-50 cm of rhyolite is intensely epidotized.								
349.10	379.10	RHYOLITE AND SHEAR FOLIATED RHYOLITE (QUARTZ-SERICITIC SCHIST)								
		- rhyolite sections are light to medium pinkish grey to greyish orange and the schists are generally medium to dark grey to purplish to greenish grey; this unit is very similar to 4.57-301.22 m; in a gross sense, the top ~ 15 m is dominantly rhyolite and the lower ~ 15 m is dominantly qtz-sc schist; the unit is fine-grained and ranges from massive to weakly foliated (rhyolite) to moderately to strongly wavy foliated (qtz-sc schist); foliation ranges from ~ 10-40° CA with avg ~ 30-35° CA; the unit also has local discontinuous banded sections (alternating dark and light; up to 1 cm wide bands) which parallels the local foliation - possible thin fault gouge @ 368.92 m (~ 4 cm oriented ~ 30° CA) - the unit is non-magnetic - the unit is variably sericitized; weakly to non-sericitic in the fresher rhyolite sections and moderately to strongly sericitized in the qtz-sc schist sections; the rhyolites are cut by 5-7% epidote:qtz veinlets 1 mm to 1 cm wide whereas the schist contains 1% epidote:qtz veining								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS			
						WIDTH	Co (ppm)	Pb (ppm)	In (ppm)
		- the top 45 cm below the upper contact within the rhyolite is an intensely epidotized brecciated rhyolite zone containing rounded to angular qtz and rhyolite fragments; the lower contact of the epidotized zone with the rhyolite is sharp and ep veining generally decreases down-hole from this lower contact; there is weak chlorite alteration mainly confined to the schists but thin intervals (± 10 cm) of rhyolite contain weak chlorite alteration; from ± 378.40-378.60 m, there is a moderately to strongly chloritic zone with red hematite along chloritic slips; also a few qtz veins present in this zone; this zone is oriented parallel to the foliation - overall there is ± 2-5% ep veining, (generally within the rhyolite); veins are irregular to planar and 1mm-1cm in width; ± 1-5% irregular qtz veining with veins up to 1-2 cm wide; few qtz veins contain a pinkish-orange mineral, possibly k-spar; also minor thin (hairline to 1 mm) reddish orange veinlets - possibly Fe-carbonate; ep veining commonly cuts across qtz veining - no visible sulphides - competent core with few 10-50 cm rubbly and shear broken sections - lower contact is fairly sharp but possibly gradational into the underlying sericitic rocks and red cherts; probable contact @ ± 25-30° CA.							

379.10 404.87 INTERLAYERED QUARTZ SERICITE SCHIST AND RED CHERT

- schist ranges in colour from a dark grey-green to a more common medium grey to greenish grey; fine-grained with minor large (up to 1 cm) cordierite porphyroblasts; the schist is moderately to strongly foliated @ an avg of ± 35-45° CA but ranges from locally subparallel to ± 65° CA
- the cherts are a dark purplish red colour, f.g. and are massive to banded; the banding arises from alternating purplish red layers and more chloritic green layers; the banding parallels the local foliation (i.e. ± 35-40° CA avg)
- up to ± 389 m, there is ± 5-10% interlayered red chert in with the qtz-sericit schist; the cherts are either planar bedded, and/or folded, or they are brecciated and cut by thin qtz veins; from ± 389 to end of the unit, there are minor (± 1%)

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS				
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba (ppm)
		interlayered cherts								
		- some of the more prominent chert layers, eg.:								
		379.50 m (= 3 cm @ 15° CA)								
		379.78 m (1-2 cm - possibly same chert as above)								
		380.75 m (2 cm folded red chert)								
		381.00 381.14 m (= 5 cm @ 10° CA)								
		382.55 382.95 m (several thin cherty bands & chl bands @ = 30° CA)								
		383.20 383.40 m (20 cm chert with upper contact cutting across foliation)								
		387.10 m (4-5 thin cherts over = 20 cm @ = 30-40° CA)								
		388.75 389.15 m (interlayered chert, chl layers, and qtz-sch schist)								
		396.98 397.07 m (@ = 35-45° CA)								
		397.22 397.75 m (numerous thin = 1 cm, some folded)								
		404.18 404.31 m (brecciated red chert)								
		404.60 404.87 m (thin chert subparallel to CA)								
		- the schist are non-magnetic and the cherts vary from non-magnetic to moderately to strongly magnetic; the cherts generally become more magnetic down hole								
		- the schist are moderately to strongly sericitic and generally weakly chloritic; there are several thin (s 20 cm) section of strongly to intensely chloritized schist in and around the many cherty intervals; these chloritic zones are sometimes highly fractured and may represent faulted zones (i.e. 379.40 m over = 20 cm)								
		- the more highly sericitic schist contain minor (1-5%) 0.3-2 cm cordierite porphyroblasts; the cordierite is now altered to chlorite, to a reddish-brown mineral (hematite?, Fe-carb?), and the cordierites are sometimes sericitized								
		- from = 398.50 to end of unit, the rock is less sericitic and weakly chloritic (dark grey-green in colour); appears to be more homogeneous								
		- the unit is cut by patches of 10-50 cm wide qtz-flooded zones; the zones are irregular in shape and contain up to 50% wallrock fragments = (generally qtz-sch-chl schist); @ = 397.90 there is an epidote qtz-calc-rich brecciated zone with numerous wallrock fragments caught up in the veined network; some thin qtz veining within these zones are contorted and folded; minor thin (1 mm) carbonate veinlets								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS			
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)

- trace to minor py occurring along chloritic fractures; trace py along sericitic fractures; possible trace to minor magnetite in the more magnetic red chert layers

- the core is variably competent - more competent in the moderately schistose zones and within most cherty unit, and less competent in the strongly sericitic and chloritic sections, especially the chloritic sections

- lower contact with felsic tuffs is gradational & subparallel to foliation and CA (contact taken @ last occurrence of red chert).

404.87 423.26 CRYSTAL AND FINE LAPILLI TUFF

- the crystal tuff sections are mottled bluish green-grey with a slight orange tint; the fine crystal-lithic tuff are med. to dark grey to green grey; the crystal tuff contain abundant (10-25%) blue qtz eyes and pinkish orange feldspar crystal fragments in a f.g. ash matrix; there is also locally 1-2% angular and commonly elongate reddish chert fragments; the matrix component to the crystal and lithic fragments is a f.g. assemblage of qtz-schchlorite

- the lower ~ 5 m has a slight weathered appearance, a "granitic" appearance

- the unit is non to weakly foliated @ ~ 20-45° CA with avg ~ 35-40° CA; some elongate cherty fragments in the crystal tuff are oriented 0-5° CA possibly defining a weak foliation or a primary bedding surface

- the crystal tuffs are non-magnetic but the f.g. ash & fine lapilli tuffs are non to weakly magnetic

- the unit up to ~ 415 m is weakly chlorite altered; the last ~ 5 m which has a "weathered" appearance may be slightly K-spar altered; at the upper contact (top 15-25 cm) there is 5-10% vague cordierite spotting; also vague weak cordierite spotting at ~ 417.40 over 20-10 cm

- up to ~ 414 m there is 2-5% irreg qtz veining; veins are up to 2-3 cm wide with ± chlorite, magnetite?; below 414 m only minor thin (< 0.5 cm) qtz veining

LITHOLOGICAL DESCRIPTION			ASSAYS							
FROM	TO		SAMPLE No.	FROM	TO	WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba (ppm)
		- 1-24, up to 2 cm reddish orange vein; these veins sometimes contain qtz fragments and wallrock fragments; the reddish orange mineral is hard and is possibly k-spar (Fe-carb?); minor thin ep; qtz-calc veining (1-3 mm) - trace dissemin py - the core is fairly competent with a few fractured zones along chloritic slips within the weakly chloritized section - the lower contact is a network of ep veining containing both crystal tuff and underlying red chert fragments; contact @ = 36' CA								
423.26	432.70	PAULY BRECCIA ZONE (FELSIC METAVOLCANIC & CHERT)								
		- a variably brecciated (competent breccia to soft fault gouge) green to grey sequence of altered felsic metavolcanics and fresher cherty sections - the unit is variably silicified and chloritized; up to ~ 425 m the unit is weakly to moderately silicified and the silicification has apparently healed the brecciated rock; the rest of the unit weakly silicified over short intervals and is weakly to moderately chloritic and is weakly sericitized; contains several fault gouge zones, eg. 425.20-425.25 m, 427.00 m (= 1 cm), 427.65-427.94 m, 429.73-430.07 m - there are also some thin rubbly zones which are not gouges but highly brecciated rock - within this unit are ~ 3 purplish cherty units with contacts generally at shallow angles to CA; at the upper contact is a ~ 5-7 cm wide red chert band @ = 36' CA; the band is moderately magnetic; the other "chert" bands are non-magnetic; the largest "chert" (428.25-428.80 m) has an epidotized center and irregular qtz-veined contacts with the brecciated wallrock; a semi-continuous foliation around this "chert" is @ = 25-30' CA - the unit is cut by 10-15% combined qtz/k-spar, (Fe-carb) veins and thin epidot veinlets; minor hairline to 0.5 cm calcite-rich veinlets - trace py on few fracture surfaces - the core is extremely broken - lower contact is a gouge zone (~ 25 cm within the underlying								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba (ppm)
		chloritic fault zone) $\theta = 5^\circ$ CA.								
432.70	438.80	FAULT ZONE								
		- med to dark green to greyish green; fine-grained, intensely brecciated and gouged felsic metavolcanic and possible mafic metavolcanic (dyke?) - the interior of the fault zone contains some foliated felsic metavolcanics (crystal tuff) with the foliation $\theta = 20-25^\circ$ CA but wavy; the foliation is apparent only over distances of 10-20 cm; the last 2 m is more chloritic (moderately to intensely chloritic) than the upper 6 m (weak to moderately chloritic) - the last two m are possibly a mafic metavolcanic - no discernable Qtz or feldspar crystal fragments and there is no foliation as in the above felsics; the last 2 m also contains 10-20% 1 mm-1 cm ep + calc veinlets - both the upper and lower contacts have 25-30 cm wide gouge zones which range from rubbly gouge to clay gouge; internally, there are a few thin (1 cm) gouges - trace to locally 1% py as f.g. dissems and as f.g. crystals along fractures and within some Qtz veins - very brittle core - lower contact is faulted $\theta = 55-60^\circ$ CA with an underlying rhyolite.								
438.80	445.15	BRECCIATED TO MASSIVE RHYOLITE								
		- mottled greyish greenish to green to orange brecciated rhyolite with minor Qtz-ec schist sections; the foliation within the schistose sections is mainly θ shallow angles to CA, $\theta = 20-30^\circ$ CA; the rhyolite is massive - the schistose sections are moderately to strongly sericitized; some fractures are chloritic suggesting local weak illite alteration - the rhyolite is cut by 10-20% irregular Qtz veins up to 1 cm wide - possibly healing parts of brecciated rhyolite; there is also minor ep veining cutting the rhyolite; $\theta = 1-3^\circ$ thin (0.5 cm) reddish-orange veinlets cutting the rhyolite - they are hard and are possibly k-spar (Fe-carb or hematite), the Qtz-ec schist.								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS				
						Wt%	Cu (ppm)	Pt (ppm)	Sn (ppm)	Ba (ppm)
		are cut by all the above vein-types but to a much lesser extent								
		- no visible sulphides - the rock is brecciated but fairly competent (healed by qtz veining) - lower contact is a gouge zone within the underlying felsic metavolcanic; contact @ = 45° CA.								
445.15	445.18	CLAY GOUGE ZONE								
		- dark green, clayey material from underlying felsic meta-volcanic unit - gouge zone oriented @ = 45° CA.								
445.18	449.25	FELSIC METAVOLCANIC (CRYSTAL TUFF?) AND MINOR RED CHERT								
		- dark green; fine-grained with few 1-3 mm remnant qtz & fex crystals; weakly to weak-moderately foliated @ = 45° CA; the rock is more schistose over ~ 15 cm from 448.47-448.62 m (just above first cherty layer) - this schistose foliation is wavy, but avg. = 50-60° CA - from 448.62-449.04 m is a red-purple chert horizon consisting of 3 reddish purple bands separated by 2 dark purplish bands - the darker purple bands may represent slightly more clastic material present within the red chert horizon - the unit is non to locally weakly - weak-moderately magnetic; the chert horizons are non-magnetic - the unit (minus the chert horizon) is moderately to strongly chloritic; the rock is highly fractured and these fractures are not only chloritic, but also contain minor ep; a 15 cm section above the chert is strongly sericitic; there is minor ep along fractures within the chert horizon - only minor irregular to planar qtz veining; the thickest qtz-veins (~ 1-1.5 cm) are located in the schistose zone; minor ep veinlets up to 1-2 mm in width - no visible sulphides - very fractured and broken core								

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FROM	TO	LITROLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS				
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba (ppm)
		- the lower contact is sharp @ + 60' CA and intrusive; there is a thin chert band (s 0.5 cm) or chert fragment here also (broken and rubbly core at the contact and the chert is probably not in place).								
449.25	452.85	NAPIC DYKE								
		- dark green, fine-grained, massive								
		- has no discernable chill margin @ the top contact but there is a weak chill at the lower contact								
		- the unit is competent and hard yet it has a brecciated appearance defined by numerous chl fractures but the unit exhibits only a moderate chloritic alteration; also probably weakly silicified								
		- within the unit from + 451.15-451.45 m is a 30 cm xenolith? or screen of felsic metavolcanic and chert; the top + 20 cm of the fragment is red chert and possibly a felsic metatuff, whereas the lowest 10 cm appears rhyolitic; foliation within the fragment is @ + 45-60' CA								
		- minor (s 1%) thin (s 1 mm) ep veins and also minor thin (s 1 mm) reddish-orange veins: calcite (probably Fe-carb veinlets); trace qtz-veins								
		- the unit is moderately magnetic; the xenolith within the dyke is also magnetic except for the lower 10 cm rhyolite segment								
		- trace to minor disse py and minor hematite along some fractures								
		- the lower contact is placed @ 452.85 m but is actually subparallel to the CA; there is a slight chill margin and the dyke is hard and brecciated @ the contact								

452.85	463.98	QUARTZ SERICITE SCHIST (RHYOLITE & FELSIC CRISTAL TUFF)	200358	454.48	455.94	1.46	5	20	44	1260
		- medium to dark grey; fine-grained; strongly (sometimes wavy) foliated @ + 30-40' CA but contains a few 20-40 cm sections of unfoliated orangy-brown rhyolite. The schists adjacent to the rhyolite sections are compositionally banded (i.e. sericitic layers separated by sericitic-chloritic? layers) and are at the same angle to CA as the foliation								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS				
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ca (ppm)
		- the rock is generally a qtz-schist with locally = 5-10% elongate (= 3-4 cm long and 1-3 mm wide) black streaks (possibly stretched cordierites). The schistose nature of the rock makes it difficult to determine what the original rock may have been; the presence of unfoliated rhyolite suggests that the schist was originally a rhyolite but the schist is gradational into an underlying felsic crystal tuff - the unit is non-magnetic - the unit is strongly sericitic and weakly chloritic; there is = 5-10% elongate (i.e. stretched) dark grey streaks which may represent sheared cordierite crystals; these grey streaks are present up to = 457.50 m; only trace of these streaks after 457.50 m - there is 1-2% planar qtz veining (5-10% in the unfoliated rhyolite sections) cutting across the foliation; the veins are up to 0.5 cm wide and generally @ a high angle to CA; = 1-2% thin (1-2 mm) apqtz veinlets; minor Fe-carb/calcite veining - possible trace v.f.g. py in the schist - fairly competent core with few 10-30 cm fractured zones where veining is more abundant - lower contact is gradational over 50-70 cm with the underlying crystal tuff - these underlying tuffs are schistose at top grading down into relatively massive to weakly foliated crystal tuff.								
463.98	474.02	CRYSTAL, LAPILLI, AND ASH TUFFS								
		- medium to dark green to grey; fine to medium-grained crystal & minor lithic fragments (ash to fine lapilli) in a f.g. ash matrix; the unit is weakly foliated ranging from 20-45° CA but averages = 30° CA - there is up to 30-40% (locally) blue to white, rounded qtz crystal fragments and pinkish ls crystal fragments; also minor ash to fine lapilli sized lithic (chert?) fragments generally red-purple in color - the unit is variably magnetic - mostly non-magnetic but few sections that are weakly to weak-moderately magnetic								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS				
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba (ppm)
		- the weak foliation is created by a weak sc alteration and the greenish coloured section are probably weakly chloritic - there is also patchy ep alt occurring as halos emanating from ep qtz veinlets; this alt is most prominent in the central 2-3 m; the ep-alt enhances the crystal fragment boundaries - along with the ep veining, there is minor (s 1%) planar qtz veining and minor (s 1%) Fe-carb/calcite veining - from 464.45 m - 464.70 m there is a network of 10-15% Fe-carb/calcite veins - no discernable visible sulphides but there may possibly be some v.f.g. py; possibly f.g. disse magnetite in more magnetic sections - very competent core with only one 10-15 cm rubbly section - lower contact is sharp but conformable with underlying ash tuff and chert unit.								
474.02	478.03	ASH & CRYSTAL TUFF (s PINE LAPILLI TUFF) AND GREY CHERTS	200359	474.02	476.02	2.00	6	16	60	250
		- the felsic tuffs are dark grey and the cherts are light to medium grey - s 10-20% grey chert; the rock is locally banded (i.e., banding within some cherts and bedding contacts between the tuffs and cherts) @ s 25-70° CA with avg s 40-45° CA; the bedding is sometimes offset or truncated; the unit is also moderately foliated over the last s 1.5 m; few stretched lapilli fragments in the sheared section; the foliation is wavy and crenoliated and ranges from 0-40° CA with no representative average - non schistose upper s 2.5 m is weak-moderately magnetic with local strong patches near small magnetite or pyrrhotite concentrations; the cherts within the upper 2.5 m and the lower 1.5 m schistose section are non-magnetic - the rock is generally weakly chloritized with weak-moderate chl alt within the last 1.5 m; the unit is also weakly sericitized, and the cherts are weakly to moderately sericitic;	200360	476.02	478.03	2.01	4	12	58	230

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba (ppm)
		the cherts also contain light green ep-rich bands (5-15%) which parallel the local banding								
		- the lower 1.5 m schistose zone is cut by 10-15% irregular qtz veins, whereas the cherts and upper ashy units contain 2-5% irregular qtz veining								
		- overall, the whole unit contains 1-3% v.f.g. to f.g. disseminated py with locally 3-5% disseminated and thin banded (= 1 mm-2 mm) or stringer py within or near chert layers; also rare pyrrhotite, chalcopyrite and magnetite								
		- some disseminated py also associated with qtz veining within the lower schistose section								
		- very competent core								
		- the lower contact is sharp but apparently gradational @ = 55-60° CA; the boundary is a sharp change in alteration but the rock-type is still felsic metavolcanic.								
478.03	486.65	QUARTZ SERICITE SCHIST (CRYSTAL & FINE LAPILLI TUFF)	200361	478.03	479.03	1.00	7	12	88	70
			200362	479.03	481.03	2.00	4	6	6	80
			200363	481.03	483.03	2.00	3	8	6	90
			200364	483.03	485.03	2.00	3	8	12	130
			200365	485.03	486.65	1.62	3	12	14	140
		- light grey to medium grey; light grey top grading gradually to a medium grey at the lower contact; fine to medium-grained strongly wavy foliation with a large range; 45-55° CA near the top, shallowing to subvertical near the center of the unit, the lower part of the section averages 35-45° CA								
		- up to = 482 m is a very clean qtz-sc schist with little or no chlorite whereas from 482 m to lower contact, there is minor chl								
		- possible thin (0.5 cm) shear fault gouge @ 483.89 m at = 45° CA								
		- the unit is non-magnetic								
		- very strongly to intensely sericitized and silicified such that original qtz crystal fragments now have very diffuse boundaries; the lower = 4 m is strongly sericitic and silicified but there is a minor chloritic component								
		- 1-3% planar, generally foliation parallel, 1-2 cm wide qtz veins								
		- this altered unit contains 3-5% disseminated and thin (≤ 1 mm) stringers (parallel to foliation) of f.g. py; there is minor brownish sphalerite occurring as thin discontinuous "stringers"								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS			
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)
		which parallel the local foliation in the upper ~ 70 cm							
		- the core is very competent							
		- the lower contact is gradational into the underlying less silicified and sericitized felsic metavolcanics; the foliation @ the contact is @ ~ 25° CA.							
486.65	515.95	QUARTZ-SERICITE-CHLORITE SCHIST (CRYSTAL TUFFS)	200366	486.65	488.55	1.90	3	12	36
			200367	491.45	492.85	1.40	4	12	74
		- light grey (bleached qtz-nc schist) to dark grey (chl:bi crystal tuff and schist); also local lapilli (up to 2-3 cm long) generally oriented parallel to the local foliation; f.g. to locally medium-grained; weakly to locally strongly foliated @ 10-45° CA - in the lower section (i.e. ~ 505 m to lower contact) the foliation is much more erratic and crenulated and commonly at angles subparallel to CA	200368	497.37	498.80	1.43	2	10	70
		- within the unit is a thin grey chert interval 491.00-491.16 m (@ ~ 45-50° CA)	200369	501.70	503.15	1.45	8	24	90
		- the unit is non-magnetic	200370	504.75	506.10	1.35	3	24	118
			200371	506.10	507.80	1.70	31	40	202
		- the unit is weakly to moderately (to locally strongly) sericitized, silicified and chloritized and biotite altered; the silicification is patchy and pervasive (i.e. less silicified where there is greater chl and/or bi) whereas the sericite, chlorite and biotite generally define a foliation; overall, the strongest chlorite alt is from the upper contact down to ~ 500 m; beyond ~ 500 m there is slightly greater degree of silicification and sericitization with a local zone (507.45-507.57 m) of intense bi alt; 512.15-512.40 - another zone of strong bi alt; chlorite alt increase within the last 1.5-2 m above the lower contact; the intense bi alt immediately underlies a clean qtz-nc schist zone (~ 506.50-507.45 m) which contains minor sphalerite	200372	507.80	508.80	1.00	36	18	38
		- there are a few 10-30 cm patches between 497-500 m containing possibly vague altered cordierite crystals	200373	509.45	511.45	2.00	34	16	56
		- there is good cordierite development over ~ 20 cm @ 513.55 m	200374	513.00	514.50	1.50	87	12	56
			200375	514.50	515.95	1.45	8	4	58
		- 2-3l qtz veining - veins are generally irregular in shape and can be up to 5 cm in width; they cut across and parallel the foliation and have minor assoc garnet and chl and py; occasionally they are folded; few thin (1-3 cm) ep-rich veinlets and few minor calcite veinlets							

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba (ppm)
		- overall there is 1-3% dissems, f.g. to locally n.g. py; minor to s lt dark brown sphalerite occurs with minor py along the foliation plane as thin (s 1 mm) stringers within the clean qtz-ec schist section (506.50-507.45 m); minor cpy with py in a folded band or stringer within a cordierite altered zone @ 513.55 m - the core is very competent - the lower contact is gradational over 20-30 cm into underlying chloritic felsic volcanic schist @ 45° CA (parallel to local foliation).								
515.95	532.13	CHLORITIC FELSIC METAVOLCANIC	200376	522.65	524.00	1.35	82	20	84	260
			200377	527.90	529.20	1.30	127	256	918	530
		- dark greyish green to green; fine-grained with local large altered porphyroblast up to 1 cm in width; weak to moderately to strongly foliated with a range of 30-50° CA with an avg of 40-45° CA; the upper 7 m is mostly weakly foliated and locally brecciated	200378	532.63	534.13	1.50	433	252	1120	1000
		- at 524.80 m there is a pyritic gouge zone over 10-15 cm @ 35° CA - possible trace galena (or specular hematite) in this gouge (assoc with py)	200379	534.13	536.13	2.00	509	70	1665	440
		- the unit is quite hard (siliceous) and chloritic with some relict qtz crystal fragments visible around the 529 m mark - probably indicating a felsic metavolcanic protolith	200380	536.13	537.13	1.00	1080	76	4280	370
		- up to 532 m the unit is non to weakly magnetic with local zones of moderate magnetism; from 532 m to lower contact the unit is generally moderately to strongly magnetic with few local patches of weak magnetism								
		- overall the unit is moderately to very strongly chloritic; up to 532.60 m the unit is moderately chloritic with local 10-10 cm patches of 20-30% black, up to 0.5 cm, chloritized cordierite crystals; there are also zones of weak to weak-mod silicification which locally masks the foliation; within this zone (i.e. above 532.60 m) there are also local zones of strong chl alt; below 532.60 m the unit is strongly chloritized (strong Fe-alt) and contains 20-30%, partially sheared, 0.2-1 cm black, chloritic cordierite porphyroblasts								
		- the cordierite has ragged ends and the crystals are stretch parallel to the local foliation; this section also contains								

- medium to dark greyish green; fine-grained; weakly foliated to massive with the foliation $\theta = 30-40^\circ$ CA; the upper section (i.e. to $\approx 542-543$ m) is the more foliated rock and this upper interval is also possibly felsic volcanic in origin - qtz crystals are vague but visible in local areas; there is a large vague gradation between these possible felsics and the underlying section of mafic metavolcanic; this vague gradation may

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS				
						WIDT	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba (ppm)
		also indicate that the mafic metavolcanics are actually felsic - the unit is non to weakly magnetic, overall, but there are local areas of mod-strong magnetism, probably due to f.g. disseminated magnetite - the unit is moderately to locally strongly chl and possibly weakly silicified; there is ~ 5% ep+qtz+calcite patches and veins with sharp to diffuse boundaries; there is an ~ 10 cm patch of vague cordierite spotting ~ 1 m below the upper contact; also from ~ 559.20-559.60 m there is ~ 20% ragged, 0.5-0.7 cm, cordierite spots in conjunction with 2-4% cpy mineralizations; this possibly represents a felsic interval within the mafic unit (it is possible that from ~ 559.20 m to end of unit is all felsic metavolcanic) - overall py < 0.5-1% but locally 2-3% over intervals up to ~ 1 m; trace to minor cpy generally assoc with qtz veining + garnet, epidote; locally 1-10% cpy over 15 cm in qtz veins along with minor py + po - the core is relatively competent with a few 10-30 cm rubble zones - lower contact is a fault @ ~ 40' CA.								
564.30	565.33	FAULT ZONE								
		- intensely chloritic, dark grey to black fault breccia and gouge zone; some visible qtz eyes? within the zone suggest the original rock was felsic metavolcanic - within the upper ~ 40 cm is a large (~ 5 cm) ep, gt, qtz + calcite vein which contains wallrock fragments; the vein follows the local preserved schistosity of ~ 30° CA - there is ~ 1-3% disseminated py and stringers of py parallel to the foliation; minor cpy present along chl slips - the lower 10 cm is a clayey gouge zone - fairly sharp (possibly gradational), contact with underlying brecciated felsic metavolcanic @ ~ 50-55' CA.								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS				
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba (ppm)
		- the rhyolite is non-magnetic - the unit has a vague silicified appearance and is weakly sericitized and chloritized; wispy dark green 'stringers' which are parallel to banding may be chlorite but the rock is very hard - minor disseminated py - competent core but fractures easily along veinlets - lower contact is sharp and probably conformable into the underlying felsic metavolcanic @ = 45° CA.								
574.35	575.07	FELSIC METAVOLCANIC (CRYSTAL TRAPP?) - medium to dark grey to greenish grey; fine-grained with minor visible vague Qtz eyes; moderately to strongly foliated @ = 40° CA - the unit is non-magnetic with a few local patches which are weakly magnetic - the rock is moderately chloritic and the lower = 30-40 cm contains 10-20% vague black chloritic cordierite spots - overall = 5-8% py as heavy disseminations parallel to the foliation; also present is 0.5-1% sphalerite as thin (hairline to 1 mm) wispy, discontinuous bands parallel to the foliation; trace to minor galena assoc with sphalerite - the lower contact is sharp @ = 45° CA with the underlying felsic metavolcanic.	200385	574.35	575.07	0.72	98	530	1600	290
575.07	594.75	FELSIC METAVOLCANIC - dark green to greyish green; fine-grained; weakly to moderately foliated @ = 40-50° CA - the foliation is defined by streaky chl blebs and by ep-gt veins which cut along the fol - the rock appears to be a strongly Fe-altered felsic metavolcanic; there is a moderate to strong pervasive chl alt and the rock is strongly magnetic suggesting that there is abundant (3-5%) fine-grained magnetite; there is = 2-5% ep-gtqtz and calcite veins (up to 2 cm) and patches; the	200388 200389 200390	575.07 586.13 592.26	576.57 587.63 593.26	1.50 1.50 1.00	94 53 38	80 16 6	302 176 144	230 790 160

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FROM		TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS				
							Wt% Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba (ppm)	
			unit is quite hard and is possibly weakly silicified; 1-3% py & pn also suggests there is Fe-alteration (Fe-enrichment)								
			- the ep-gt veins are the most prominent and abundant but there are lesser (s 1%) calcite and qtz-calcite veinlets								
			- there is ~ 1-3% py occurring as f.g. dissems along foliation planes; up to ~ 5% locally around ep-gt								
			- minor qtz-calc veins and vein systems								
			- competent but variably fractured core over 10-20 cm intervals; occasionally easily broken along chloritic slips								
			- lower contact sharp @ ~ 55° CA and conformable into underlying ash and crystal tuffs.								
594.75	599.54		PLASTIC CRYSTAL AND ASH TUFFS	200391	596.25	597.72	1.47	40	16	170	120
			- medium to dark grey to greenish grey; fine-grained with local 5-10% concentrations of crystal (qtz & f) fragments in the numerous thin (s 5-30 cm) crystal tuff sections; the unit is banded and foliated @ ~ 45-55° CA								
			- the rock is non-magnetic in the crystal tuff section and weak to mod magnetic in the dark, f.g. ash sections								
			- the unit is variably altered; the crystal tuff sections are generally more siliceous and sericitic than the f.g. ash sections which are more chloritic and biotitic although there are examples of bi-chl-rich bands (~ 1-3 cm) within the crystal tuff; minor ep & gt veins and patches (~ 1%) generally restricted to the ash tuffs								
			- 2-5% planar to irregular qtz veins mainly cutting along the foliation; ~ 1% ep & gt bands and veinlets								
			- overall ~ 2-3% disse py and pyrrhotite and possible minor f.g. magnetite; sulphides are disseminated along the foliation plane								
598.05	599.31		Mafic Dyke								
			- f.g., dark purplish grey, chill margins developed; moderate to strongly magnetic								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS				
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba (ppm)

- the core is very competent.
- lower contact not encountered

599.54 EOM

CASING LEFT IN HOLE

DOWN-HOLE SURVEY DATA

DEPTH	INCLINATION	BEARING
64.33	-60.00	104.50
100.14	-60.00	109.00
317.94	-59.00	126.00
407.52	-57.00	128.00
494.08	-54.00	134.00
570.59	-52.00	118.00
599.54	-52.00	138.00

PROJECT: Roberts Arm - Gullbridge

RAE

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SAMPLE NUMBER	SAMPLE INTERVAL (M)			ASSAYS				Sulphides	SAMPLE DESCRIPTION
	FROM	TO	LENGTH	Cu (ppm)	Pb (ppm)	Zn (ppm)	Pb (ppm)	(%)	
200,357	308.00	309.00	1.00	75	34	108	400	1-3% Py + Pb	-chloritic tuff and thin red chert interbeds
200,358	454.48	455.94	1.46	5	20	44	1260	trace Py	-quartz-sericite schist
200,359	474.02	476.02	2.00	6	16	68	250	1-3% Py Minor Pb Trace Cu	-felsic metavolcanic ash tuff and grey chert interbeds with trace disseminated magnetite & dis sulphides
200,360	476.02	478.03	2.01	4	12	58	230	1-3% Py	-grey chert and schistose felsic tuff
200,361	478.03	479.03	1.00	7	12	88	70	2-5% Py Minor sphal	-white, clean, quartz-sericite schist.
200,362	479.03	481.03	2.00	4	6	6	80	2-5% Py	-white, clean, quartz-sericite schist
200,363	481.03	483.03	2.00	3	8	6	90	2-5% Py	-white, clean, quartz-sericite schist
200,364	483.03	485.03	2.00	3	8	12	130	2-5% Py	-white, clean, quartz-sericite schist
200,365	485.03	486.65	1.62	3	12	14	140	2-5% Py	-white, clean, quartz-sericite schist.
200,366	486.65	488.55	1.90	3	12	36	340	1-3% Py	-weak to moderately chloritized, sericitized and silicified felsic metavolcanic crystal tuff
200,367	491.45	492.85	1.40	4	12	74	600	2-4% Py	-weak to moderately chloritized, sericitized and silicified felsic metavolcanic crystal/lapilli tuff with 5% glz veins
200,368	497.37	498.80	1.43	2	10	70	680	1-2% Py	-weak to moderately chloritized and sericitized, +/- weakly cordierite spotted felsic crystal/lapilli tuff
200,369	501.70	503.15	1.45	8	24	90	700	1-2% Py	-weak to moderately chloritized and sericitized, +/- weakly cordierite spotted felsic crystal/lapilli tuff
200,370	504.75	506.10	1.35	3	24	118	420	1-3% Py	-weak to moderately chloritized and sericitized, +/- weakly cordierite spotted felsic crystal/lapilli tuff
200,371	506.10	507.80	1.70	31	40	202	340	2-4% Py Trace Cu Minor sphal	-quartz-sericite schist with local intense biotite alteration
200,372	507.80	508.80	1.00	36	18	38	290	1-2% Py	-quartz-sericite ± chlorite schist (felsic crystal and lapilli tuff)
200,373	509.45	511.45	2.00	34	16	56	300	1-3% Py	-quartz-sericite ± chlorite schist (felsic crystal and lapilli tuff)
200,374	513.00	514.50	1.50	87	12	56	380	1-3% Py	-quartz-sericite-chlorite schist (felsic crystal and lapilli tuff)

PROJECT: ROBERTS ARM - GULLBRIDGE

RAE

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SAMPLE NUMBER	SAMPLE INTERVAL (M)			ASSAYS				Sulphides	SAMPLE DESCRIPTION
	FROM	TO	LENGTH	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba (ppm)	(%)	
200,375	514.50	515.95	1.45	8	4	58	380	1-2% Py	- quartz-sericite-chlorite schist (felsic crystal and lapilli tuff)
200,376	522.65	524.00	1.35	82	20	84	260	1% Py + Po	- moderately chloritic and silicified felsic metavolcanic with minor magnetite
200,377	527.90	529.20	1.30	127	256	918	530	10-15% Py + Po Trace cpy	- moderately chloritic and silicified felsic metavolcanic with minor cordierite spots and minor magnetite
200,378	532.63	534.13	1.50	433	252	1120	1000	5-7% Rb, Py Trace cpy	- intensely chloritic felsic metavolcanic with 20 to 30% cordierite spots and 1 to 5% magnetite
200,379	534.13	536.13	2.00	509	70	1665	440	5-7% Rb, Py Minor sphal Trace cpy	- intensely chloritic felsic metavolcanic with 20 to 30% cordierite spots and 1 to 5% magnetite
200,380	536.13	537.13	1.00	1080	76	4280	370	5-7% Rb, Py Minor sphal	- intensely chloritic felsic metavolcanic with 20 to 30% cordierite spots and 1 to 5% magnetite
200,381	557.70	558.70	1.00	271	12	206	330	0.5 to 1% Py + Po	- mafic metavolcanic; moderately chloritized
200,382	558.70	559.75	1.05	3360	58	932	380	1-3% Rb, Py 1-2% cpy	- felsic metavolcanic?
200,383	559.75	560.75	1.00	181	22	398	1840	1-2% Rb, Py	- felsic metavolcanic?
200,384	565.33	566.83	1.50	268	140	1990	700	5-7% Py + Po	- chloritic felsic metavolcanic
200,385	566.83	567.90	1.07	53	240	904	660	5-7% Py + Po	- chloritic felsic metavolcanic
200,386	573.35	574.35	1.00	38	28	186	620	Minor Py	- rhyolite
200,387	574.35	575.07	0.72	90	530	1600	290	5-8% Py Minor Rb 0.5% sphal Minor lead	- chloritic felsic crystal tuff
200,388	575.07	576.57	1.50	94	80	302	230	2-4% Py + Po	- Fe-altered (chloritic and magnetite) felsic metavolcanics with 1 to 5% disseminated magnetite
200,389	586.13	587.63	1.50	53	16	176	790	2-4% Py + Po	- Fe-altered (chloritic and magnetite) felsic metavolcanics with 1 to 5% disseminated magnetite
200,390	592.26	593.26	1.00	38	6	144	160	1% Py + Po	- Fe-altered (chloritic and magnetite) felsic metavolcanics with 1 to 5% disseminated magnetite
200,391	596.25	597.72	1.47	40	16	170	320	1-3% Py + Po	- felsic metavolcanic ash and crystal tuff with minor disseminated magnetite