

RIO ALGOM EXPLORATION INC.

DIAMOND DRILL LOG

PROPERTY: GULLBRIDGE

HOLE No.: GB-146

Collar Eastings: 6670.00

Collar Northings: 2550.00

Collar Elevation: 0.00

Collar Inclination: -48.00

Grid Bearing: 280.00

Final Depth: 699.52 metres

Logged by: S.M.PUDIPIN

Date: FEB.19,1991

Down-hole Survey: TROPARI

FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba(ppm)
0.00	4.35	CASING (Ice, Water, Overburden)								
4.35	30.00	MAFIC METAVOLCANIC (Robert's Arm)								
		- medium to dark greenish-grey. - medium to fine-grained. - generally quite massive; homogeneous with no foliation, some sections are fresh-looking. - composition: pyroxene-amphibole-feld.; minor pervasive chl, minor local silicification make core hard but can scratch with knife; up to 2-3% thin calcite(cc) and qtz-cc veinlets at low angle to C.A.; minor epidote tends to coat fracture surfaces; up to 5% qtz-ep-cc patches/veins from 21.25-26.40 m subparallel CA and in gashes @ 30° CA. - trace very weak mt, generally non-magnetic. - core is fairly competent but broken zones occur @: 4.90-5.80m; 16.48-16.76m; 17.36-17.40m; 17.90m; 25.80-25.91m; @ lower etc from 29.85-30.00m; core generally tends to break @ 90° CA. - trace to minor fine-grained dissem. py. - lower contact unclear due to rubbly core (could be @ 60° CA).								
30.00	60.70	SILICIFIED MAFIC METAVOLCANIC FLOW	202532	32.00	34.00	2.00	41	2	68	40
			202533	37.70	39.70	2.00	13	2	50	30
			202534	51.00	53.00	2.00	16	2	68	40
			202535	53.00	54.25	1.25	108	2	62	30
			202536	54.25	55.50	1.25	1240	2	68	10
			202537	55.50	57.50	2.00	182	2	66	20
		- medium to dark grey with lighter grey domains. - generally fine-grained. - wk to mod. foliation defined by more chloritic compositions or more siliceous compositions; silicified zones are more massive; foliation is mostly between 10-20° CA but locally it is 30° CA such as @ 37.45 m or 90° CA such as @ 31.20-31.95 m. - core is variably, pervasively silicified and chloritized making it somewhat difficult to determine the protolith, though overall it appears to look mafic; some irregular patches of silicified, hard grey rock seems to "float" in a mafic, chloritic host - probably alteration; @ 41.45-41.60 m, 2 mm - 5 mm lensoid felsic frags in a chloritic mass; siliceous domains elongated parallel to foliation @ 30° CA.								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS			
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)
		- local patchy epidote alteration is also present, particularly near upper contact; minor epidote also lines fractures - 32.55-32.68 m: qtz-cc veining causes local small scale brecciation @ 50° CA; 55.85-56.00 m: qtz-cc-ep fractures @ 30° CA. - local ghost-like spotted porphyroblasts; ragged edges, up to 10% @ 45.35-46.00 m (2-4 mm); 55% from 53.34-53.35 m; up to 30-40% from 57.00-60.00 m (3-6 mm). - core is uniformly strongly magnetic. - local moderate py mineralization; 0.5-20% fine-medium-grained clusters of disseminated py; py tends to be more abundant in chloritic zones and seems to follow the foliation; looks secondary, but few thin (< 2 mm wide semi-massive py veinlets also present as @ = 38.60 m. - core generally competent. - sharp irregular lower contact. 50-05-50.05 m: narrow dark, grey aphanitic 'chilled' dykelet @ 50° CA.							
60.70	62.50	LATE MAFIC DYKE - dark grey, uniform, very fine-grained massive unfoliated dyke. - mafic-looking with (< 0.5% qz-cc-ep veinlets; subrounded white vesicles? feldspar phenocrysts? (looks like quartz) up to } mm diameter in center of dyke (= 1%, locally). - moderate to strong magnetite. - trace fine-grained disseminated py. - lower contact is broken into rubble; probably fault contact @ = 30° CA.							
62.50	68.22	QUARTZ-FELDSPAR PORPHYRY (Crosscuts mafic dyke)							

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS			
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)
		- pinkish-red; medium to coarse-grained; feldspar phenocrysts can reach up to 3 mm diameter. - massive, porphyritic; upper contact to 63.35 m is rubbly; faulted; minor rust. - = 60-65% feldspar; 25% quartz; 10-15% mafics (hornblende) in fresher domains. - 2-3% qz-ep veinlets (late). 66.12-66.30 m: micro-breccia fault zone; sealed with qz-ep. - negligible mineralization. - ground core @ 62.50-63.35 m and @ 66.12-66.30 m; remainder of core is quite competent. - upper contact is chilled and dark grey to 63.50 m; lower contact zone from = 67.40-68.22 m is also dark grey and fine-grained over 92 cm; sharp lower contact with aphanitic chill @ 20° CA.							
68.22	69.35	MAFIC DYKE (LATE)							
		Similar to 60.70-62.50 m; dark chlorite coats fractures toward bottom of interval; sharp lower contact defined by quartz vein (= 0.5 cm wide) @ 20° to CA; minor rust along selvages; good chilled zones. Weakly magnetic; trace rounded concentration py.							
69.35	75.68	MAFIC METAVOLCANIC (MINERALIZED)	202538	69.35	70.80	1.45	33	18	80
			202539	70.80	72.91	2.11	3	2	50
		- Medium-dark grey to dark grey-green; very fine-grained.	202540	72.91	73.51	0.60	13	2	54
			202541	73.51	74.68	1.17	4	2	28
		- very weak to moderately developed foliation; foliation defined by alignment of pyrite concentrations as well as the occasional qz-epitec veins; @ upper contact, it is 20° CA.	202542	74.68	75.68	1.00	18	2	66
		FAULT ZONE: 69.35-70.00 m; rusty rubbly core; chloritic fracture surfaces.							

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba(ppm)
		- core is probably mafic but quite hard (dacitic?) except in strongly chloritic zones; mottled texture due to 'ghost' dark grey-green porphyroblasts from 71.65-72.91 m (2-8 mm; ~ 15%) also from 75.30-75.50 m. 72.91-73.51 m: Felsic tuff (interflow sediment) - light grey siliceous/felsic (almost cherty) bands laminated with chlorite giving strong foliation @ 20-25° CA; fine-grained disseminated py tends to occur along foliation in chloritic domains and fractures (4-5%). - non-magnetic. - mafic volcanic is variably magnetic, i.e. weak @ 71.65 m; moderate to strong 72.30-72.80 m. - alteration consists of very strong dark green (to almost black) chlorite along surface faces of core and along fractures; 'cordierite' spotting observed at upper and lower contacts of semi-massive py bands; minor cc and qz-ep veinlets and patches. - mineralization is locally strong and consists of fine-grained disseminated py (occasionally elongated & almost needle-like) which tends to occur along the foliation and along chloritic fractures; it varies from 2-3% to semi-massive bands of coarse-grained rounded granular accumulations; 74.68-75.30 m = 85-90% py with brecciated angular fragments of laminated chert (1-8 cm) within; chloritic matrix; 75.50-75.63 m: another semi-massive accumulation of fine-coarse grained py; contacts @ 30° CA (thin ep vein parallel foliation @ upper contact). Core is broken up into small rubble in the fault zone to generally ~ 12 cm. Lower contact is defined by sudden decrease in significant py; core beneath is possibly same rock type, but has moderate ep-qz/cc veins, veinlets and patches; seems to be more massive.								
75.68	110.81	MAFIC METAVOLCANIC	202541	75.68	77.18	1.50	28	2	80	
			202544	84.00	86.00	2.00	9	2	88	
		(irregular stringer chlorite with qz-ep:chl veins & patches.)	202545	88.00	89.50	1.50	2	2	68	
			202546	91.85	94.85	1.00	60	2	68	
		- dark grey-green with light green epidotized veins and patches.	202547	108.50	109.50	1.00	61	2	46	

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS			
						WGT%	Cu (ppm)	Pb (ppm)	Zn (ppm)
		- mainly fine-grained with narrow slightly coarser sections such as from 80.00-80.25 m and 99.30-101.65. - weak to moderate foliation, though more indurated domains look almost massive: top of interval to ~ 82.80 m: foliation is moderate @ ~ 20° CA. - narrow shears with qz-ep-cc "healed" mafic volcanic @ 79.87-79.97 m: @ 60° CA; @ 83.82-83.98 m: upper contact @ 40° CA; lower @ 30° CA; 91.93-92.15 m: brecciation; sealed by qz-cc-ep (vuggy) (minor py @ lower contact); 95.85-95.17 m; 101.65-102.65 m: bleached lighter green; soft chl-ep-clay gouge (easily scratched with knife); brecciated; qz veinlets; non-magnetic; minor py; upper contact @ 70° CA; lower @ 30° CA; 108.68-109.80 m: similar to 101.65-102.65 m: bleached light grey; soft, "porous"; crisscrossing qz veins ~ 10% @ 10-20° CA; upper contact @ 10° CA; lower contact ~ 20° CA silicified (lower ~ 20 cm is coarse-grained, almost looks gabbroic). - core is mafic (too fine-grained to determine mineralogy); some zones are weakly porphyritic (feldspars are ~ 1 mm diameter and comprise ~ 2-5% of core), i.e. 81.00-82.00 m and "ghosts" from ~ 96.01-99.30 m (silicified - could be quartz as opposed to feldspar) and 101.65-104.00 m. - core is hard (indurated) but certain intervals are very chloritic, i.e.: 78.00-79.00 m; either side of dykelet @ 83.95-82.10 m; 82.10-82.25 m: Mafic Dykelet: dark green, very fine-grained, chilled massive dyke; contacts @ ~ 60° CA (non-magnetic). 82.25-83.08 m: Chloritic; fractured ~ along CA & later infilled with calcite. 101.65-102.65 m: Brecciated with soft chloritic gouge/clay-rich "fragments". 108.68-109.80 m: Soft light green chloritized core; competent yet friable if crushed; fault. - light green silica-epidote alteration in irregular patches and veins commonly with minor carbonate comprises ~ 5-6% of interval. - unit is weakly to moderately magnetic, variable. - minor fine-grained disseminated pyrite scattered throughout as well as in the occasional chloritic veinlet; narrow							

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba (ppm)
		irregular stringer of semi-massive py with minor magnetite appears to be replacing chlorite fracture @ 88.40 m @ 30° CA. - core is generally competent yet some fractured zones are described above, where minor faults are located. - sharp lower contact @ 60° CA (planar).								
110.81	112.50	WEAKLY PORPHYRITIC FINE-GRAINED MAFIC DYKE								
		- Dark grey-green with speckled buff to salmon-coloured feldspar phenocrysts. - fine-grained matrix with ~ 3-5% euhedral to subhedral feldspar phenocrysts 0.5 mm to 0.25 mm. - core is massive with hairline veinlets of qz-ep-cc @ ~ 25° CA. - matrix is chloritic but not very altered. - non-magnetic. - trace fine-grained disseminated py. - fairly competent. - sharp planar lower contact @ 30° CA.								
112.50	115.05	CHLORITIZED INTERFLOW RHYOLITIC TUFF (FLOW TOP BRECCIA?)	202548	112.50	114.20	1.70	124	13	90	120
			202549	114.20	115.05	0.85	104	14	170	90
		Pale grey with dark green infilled fractures. - fine-grained to very fine-grained. - fractured and brecciated. - appears to be of rhyolitic composition, very hard, siliceous, brecciated with matrix between rhyolitic fragments composed mainly of chlorite and minor calcite along later fractures. - variably weak to strongly magnetic. 112.50-113.00 m: more rhyolitic up to 5-8% fine-grained accumulations of pyrite; ~ 1-2% fine-grained magnetite associated with py; tends to occur along foliation/chloritic fractures @ ~ 10-20° CA (varies to ~ 30° CA). 113.00-114.20 m: intensely chloritized interval with ~ 1-2% disseminated fine-medium-grained py.								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS			
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)
		114.20-115.05 m: irregular 'wormy' felsic fragments (50-60%) in chloritic matrix; * 2-3% fine-grained py accumulations; * 1-2% fine-grained disseminated to massive veinlets of magnetite; some fragments @ * 60-65° CA @ 114.40 m.							
		Core breaks fairly easily in upper 2.0 m from 30° CA to parallel to CA.							
		Upper contact brecciated with minor chloritic-clay gouge @ * 30° CA; lower contact not very clear but defined by qz-ep veins and more massive mafic-looking rock beneath (* 30° CA).							
115.05	127.83	MAFIC METAVOLCANIC - VARIABLY WEAKLY MINERALIZED (PY)	202550	116.35	118.35	2.00	145	4	106
		Dark grey with occasional mottled look from patches of qz-ep alteration.	202551	120.03	122.03	2.00	186	10	112
		Mainly fine-grained.	202552	122.03	124.03	2.00	102	12	82
		Appears to show weak foliation, variable; not uniform looking core @ 116 m = 35° CA; 116.50-120.00 m = 10-15° CA; 120.00-121.00 m = 0° CA; 121.00-127.80 m = 10-15° CA.							
		Core seems to have mafic composition though some zones are quite hard - probably due to silicification; indurated.							
		Irregular distribution of patchy qz-ep alteration (3-5%) and veinlets (< 1%); variable ragged-edged porphyroblasts which appear to be chlorite+magnetite from 116.00-122.00 m (0-5%, locally, though some intervals have none) 2 mm to 1 cm (around 116.35 m).							
		From 120.03-121.00 m: looks like felsic fragments(?) lensoidal along CA adjacent to chloritic fracture; probably silicified (coarse-fine-grained py accumulations tend to concentrate along fracture here, too; overall chlorite content is moderate; minor qz-cc veinlets (latest).							
		Mineralization consists of fracture-controlled disseminated accumulations of py; as well, py is seen to replace in qz-ep patches or chloritic porphyroblasts; overall py comprises * 2% of interval.							
		Strongly magnetic; up to 2%, tends to occur disseminated in							

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS			
						WIDEN	Cu (ppm)	Pb (ppm)	Zn (ppm)
		chloritic porphyroblasts as well as massive veinlets.							
		Core is generally competent though breaks along fracture parallel CA from ~ 120.00-121.00 m.							
		Lower contact is gradational defined by decreasing amount of ubiquitous py.							
127.80	138.00	MAFIC METAVOLCANIC	202553	141.00	142.70	1.70	118	4	80
		(locally very indurated; similar to 10.00-60.70 m.)	202554	147.60	149.10	1.50	40	2	86
		Dark grey to dark grey-green; similar to mineralized mafic volcanic unit above but hosts only minor disseminated py; looks more homogeneous, very fine-grained and almost massive; most of interval is very hard - almost rhyolitic or dacitic; hard to note a foliation, except occasionally when sulphides are present.	202555	160.00	160.25	0.25	810	4	82
			202556	164.00	166.00	2.00	700	2	82
			202557	166.00	167.50	1.50	372	2	82
			202558	183.00	185.00	2.00	228	2	78
			202559	185.00	186.00	1.00	1065	2	70
			202560	186.00	188.00	2.00	349	2	62
		135.46-136.00 m: dacitic? - can't scratch with knife.							
		Alteration consists of 'cooked' rock which is very indurated (pervasively silicified); ~ 2-3% light green qz-ep patches and veinlets observed; local magnetite up to 1-2% is present as fine-grained disseminations which are sometimes in clusters up to 1.5 cm x 0.5 cm or in hairline veinlets; minor narrow irregularly oriented euhedral fine-grained radiating actinolite veinlets; minor specular hematite (very fine-grained); sph?							
		Core is fairly competent breaking in pieces ~ 30 cm to 2 cm, averaging ~ 20 cm @ ~ 40° CA.							
		Irregular intrusive contact with dyke.							
		143.07-143.63 m: PORPHYRITIC INTERMEDIATE TO MAFIC DYKE - medium grey, fine-grained matrix with ~ 5% light grey to buff coloured subhedral feldspar phenocrysts (<0.5 mm) and ~ 6-8% dark green anhedral amphibole(?) phenocrysts (~ 0.5-1 mm).							
		- massive; crosscut by planar hairline cc veinlets (2%).							
		- non-magnetic.							
		- no mineralization.							
		- sharp lower contact @ 65-70° CA; defined by cc vein.							

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS			
						WIDYB	Cu (ppm)	Pb (ppm)	Zn (ppm)
		143.63-143.95 m: strongly chloritic mineralized mafic metavolcanic - * 15-20% fine-medium-grained disseminated py (similar to mineralized intervals in 115.05-127.80 m).							
		143.95-158.20 m: mafic metavolcanic - broken core @ 145.20-145.30 m; probably small FAULT @ * 50' CA. As previously described, * 1-2% qz-cc veinlets and particularly in more indurated zones such as sample 202554; up to 4-5% qz-cc-ep patches; variable weak to moderate magnetite; * 0.5% disseminated py which occurs in cc veins commonly associated with mt. Strong silicification from * 157.60 to the irregular sharp lower contact @ * 45' to CA. This zone is strongly magnetic with patches of semi-massive mt and * 0.5 disseminated accumulations py; * 15% qz-ep patches.							
		158.20-159.23 m: porphyritic intermediate to mafic dyke - similar to 143.07-143.63 m) - medium grey with * 4% subhedral chloritized phenocrysts (* 0.5 mm) - fine-grained; massive but crosscut by * 1% irregular hairline cc filled fractures; non-magnetic; not mineralized; chloritic fractures; non-magnetic; not mineralized; chloritic fractures; lower contact defined by calcite fractures @ * 60' CA.							
		159.23-160.25 m: mafic metavolcanic; lowermost 25 cm is strongly chloritized with rusty fracture surface; vuggy within 0.5-1% fine-grained disseminated py, trace sph??; slightly brecciated; sharp irregular lower contact @ * 55-60' CA.							
		160.25-160.57 m: PORPHYRITIC INTERMEDIATE TO MAFIC DYKE - same @ 158.20-159.23; sharp irregular lower contact @ * 50' CA; thin 1 cm wide dykelet @ * 70' CA, 6 cm lower down; * 10% wispy qz:ep veinlets from this lower contact area to * 167.00 m.							
		160.57-180.32 m: mafic metavolcanic as previously described except weak to moderate foliation outlined from * 164.00- 164.50 m by disseminated py along a foliation of * 20-25' CA; trace po?							
		162.25-167.50 m: slightly more mineralized with (on average) * 1-2% fine-grained disseminated py; clusters of dissem py occasionally tend to concentrate along * 25' CA; magnetite is still associated with py. - minor porphyroblasts (2 mm to on average * 5 mm) noticeable							

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS			
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)
		particularly @ 165.18-165.40 m (= 5%) and from 166.50-166.85 m (= 8%).							
		177.50-178.40 m: very hard homogeneous dark grey; very fine-grained - aphanitic; massive, probably chilled dyke? rhyolite? - mainly quartz? could be anhedral feldspar with very minor chlorite giving rock same dark colour as volcanics on either side which show very weak foliation; "rhyolitic" interval has "crackled" appearance resulting from numerous hairline qz-filled fracturing; unit is moderately magnetic and non-mineralized; contacts are defined by disappearance and appearance (at lower contact) of weak foliation and more chloritic rock: upper @ = 70° CA; lower @ = 40° CA. (This interval may just be more indurated due to a chilled dyke.)							
		180.32-190.60 m: variably silicified mafic metavolcanic - (could be felsic chloritized volcanic??) More mottled appearance due to irregularly distributed lighter grey pervasive "wormy" diffuse siliceous patches (4-5%) as well as light grey qz-ep patches and stringers (3-4%); darker green chloritic zones seem to concentrate more disseminated py; localized ragged chloritized porphyroblasts from 179.65-180.00 m (3%) & 181.85-185.50 m (variable, average = 4%). Generally, foliation is weakly defined: 181.35 m = 32° CA; 182.65 m = 35° CA; 186.00 m = 25° CA; 187.25 m = 15° CA.							
		Mineralization consists of disseminated fine-grained py, generally along foliation or chloritic fractures average is = 0.5% overall, but locally up to = 2% over 10 cm; minor traces of chalcopyrite associated with a silicified zone @ 185.60-185.75 m; pyrite and minor po appear here in a semi-massive band/cluster @ 186.10 m (50:50 po-py). Brecciated broken core @ 183.60-184.11 m.							
		190.60-198.00 m: mafic metavolcanic - dark grey-green; fine-grained, fairly homogeneous. - fairly indurated with minor porphyroblasts @ 192.40 m; weakly chloritic fractures; network of wispy qz-ep fractures comprise = 15% of core from 194.23-194.60 m oriented at = 15° and 5° CA; about 1-2% qz-ep patches throughout interval. - generally < 0.5% fine-grained disseminated and few massive patches of py usually associated with minor mt as @ 194.60 m. - foliation varies between = 70° CA @ 191.45 to generally between 5° and 16° @ 196.90 m.							

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS			
						WIDEN	Cu (ppm)	Pb (ppm)	Zn (ppm)
		197.14-197.23 m: DYKZLET - medium/light grey massive very fine grained chilled; non-magnetic; very sharp irregular upper contact @ = 70' CA and lower is 50' CA.							
		197.87-198.00 m: broken core - minor gouge; probably small FAULT.							
198.00	292.80	"ALTERED" VARIABLELY MINERALIZED "MAFIC"? VOLCANIC	202561	198.00	199.80	1.80	34	4	46
		(Could be chloritized felsic-autobrecciated locally.)	202562	199.80	202.00	2.20	5	2	52
		- fine-grained medium to dark grey-green with lighter grey mottled appearance probably due to felsic fragments and lighter greenish-grey patchy alteration; porphyroblastic to 219 m.	202563	202.00	204.00	1.20	10	2	46
			202564	205.10	207.10	2.00	1	2	46
		- weak to moderate foliation; variable 195.95 m = 16' CA; 199.20 m @ 40' CA; 200.00-201.00 m = 15' CA (calcite fracture). Remainder of interval is mainly @ = 30-35' CA when observable.	202565	210.00	211.00	1.00	9	2	54
			202566	226.60	228.60	2.00	92	2	38
			202567	238.00	240.15	2.15	38	4	34
			202568	244.80	246.80	2.00	5	2	32
			202569	253.00	254.50	1.50	1	2	36
			202570	254.30	255.00	0.50	6	2	40
			202571	256.95	257.50	0.55	1	2	38
			202572	259.00	260.50	1.50	130	2	36
			202573	267.25	268.25	1.00	1075	2	36
			202574	283.10	284.10	1.00	1	2	38
			202575	289.50	291.55	2.05	23	2	34
			202576	291.55	292.60	1.05	15	2	36
		- rock is probably composed of qz-plag-chl; lighter grey "fragments" are very hard, therefore siliceous and comprise ~ 40% locally of core; they are usually subangular lenticular or "wormy" to ~ 2 cm x 0.3 cm; @ 209.49 m, a fragment is ~ 6 cm x 2.5 cm; not always stretched along foliation, suggesting strong deformation? alteration?; ~ 3% patchy pervasive silica-epidote alteration with diffuse contacts in upper part of interval getting really sharp @ = 223.00 m where they almost look like fragments up to 5 cm x 4 cm; they can be rimmed with dark green chlorite-magnetite (1 mm wide). From 218.90-224.35 m, the qz-ep patches are subrounded to round with generally very sharp contacts, here they comprise ~ 5% overall, they are occasionally crosscut by later medium grey qz veinlets. From 222.60-224.35 m, < 3% sharp angular to subangular dark grey rhyolitic fragments (2 mm to 2 cm).							
		- rock is moderately to strongly chloritic - probably an altered felsic but more massive; less altered units look like mafic volcanic.							
		- variably porphyroblastic; subrounded chloritized cordierite varies from ~ 1 cm diameter to ~ 0.2 cm diameter; 5-8% locally over ~ 6-15 cm length to ~ 1%. Very weak (< 1%) beneath ~ 219.00 m.							

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						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)

- qz:cc veinlets and fractures comprise < 0.5% of interval; @ 206.95-207.00 m, granular white qz vein:cc and wisps of chlorite:trace py along foliation (parallel to contacts) @ ~ 40° CA; massive py over ~ 0.5 cm at upper contact; minor brownish-red garnet (subhedral fine-medium-grained) occurs @ 198.50 m & 203.30 m, associated with cc.

- magnetite is generally pervasive; up to 4%; weak to locally very strong; it is usually finely disseminated but also tends to occur where py accumulations occur. Massive ~ 0.5 cm band @ 218.62 m.

Weakly brecciated from qz:cc-actinolite vein @ 214.54-214.57 m @ 40° CA and from 217.40-417.65 m; broken core @ 227.75-227.88 m.

230.20-230.89 m: more fragmented or altered-looking with ~ 30% mottled siliceous domains in a darker moderately chloritic matrix; weakly sheared @ 230.60-230.80 m @ 25° CA.

- mineralization consists of fine-grained to medium-grained disseminated py:trace po; trace to 3-4% py: over 20 cm. Pyrite also occurs in patches and as disseminations along fractures or chloritic veins or as stringers semi-massive to massive gr granular patches and bands @ ~ 203-203.30 m; bands are irregular and from 0.6 cm to 3 cm wide; 210.67 m: 1 cm massive py band adjacent to calcite vein.

230.80-234.00 m: mostly massive homogeneous weak-moderately magnetic mafic(?) metavolcanic, negligible sulphides; lower contact @ 70° CA characterized by reappearance of silicification and chloritic patches.

235.20-244.74 m: mostly mafic(?) volcanic with up to 1-2% fine-grained disseminated py "peppered" throughout; moderately magnetic; much less sil-ep patches (<0.5%), @ 240.15 m, looks like pillow selvage?; fairly competent showing weak foliation @ ~ 32° CA; lower contact characterized by whitish-light grey band/fragment 2 cm x ~ 8 cm @ 25° (upper) and 30° (lower) CA.

244.74-247.15 m: interflow - mafic? metavolcanic with ~ 20% light grey, siliceous/cherty fragments/bands; magnetite is strong and occurs as massive 1-2 mm rims around felsic

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						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)
		fragments; felsic "fragments" are irregular and even wormy; lower part has very diffuse contacts and could be just silicification; * 5% spotty and patchy ep-qz alteration.							
		247.15-292.60 m: similar to subunits described above - intermixed altered mafic?/or chloritized felsics as described from 198.00-219.00 with more homogeneous, massive mafic volcanic-looking intervals similar to 230.80-234.80 m; entire interval is magnetic with varying intensities; py+po mineralization is ubiquitous from * "peppered" disseminations and stringers (trace-2%) locally as well as semi-massive bands 1-4 cm wide seen from * 254.50-159.34 m and 267.60-267.85 m. Wide semi-massive band of granular py from 291.55 to 292.60 m with upper contact @ * 35' CA & lower contact @ 42' CA (up to 45-50% py overall).							
		247.15-253.00 m: generally massive, siliceous metavolcanic with * < 1% qz-ep patches with fairly sharp outlines; few localized patches disseminated py.							
		253.00-260.50 m: more strongly altered; regular contortions, locally; cherty/siliceous bands (256.40-257.05 m) or "wormy" fragments; irregular py concentration; foliation @ upper contact @ * 25' CA; 50' @ 250.40 m; remainder varies.							
		260.50-262.80 m: as @ 247.15-253.00 m.							
		272.80-274.60 m: as @ 253.00-260.50 m, but diffuse "wormy" felsic fragments?/alteration; no cherty fragments.							
		247.60-280.30 m: fine-grained mafic dyke (probably Roberts Arm) - dark grey, very fine-grained; hard; few diffuse fine-grained epidote altered patches; weakly-moderately magnetic; trace fine-grained py around altered domains * 279.25 m stringer of po with minor py; trace reddish mineral?; massive yet weak foliation observed * 276 m @ 35' CA; upper contact @ 23' CA (no chill observed but disappearance of patchy contorted ep-qz alteration); lower contact zone from 279.87-280.30 m is dark grey-black & aphanitic chill zone; 60' CA @ 279.87 m & 50' CA @ 280.30 m.							
		280.30-283.00 m: as described from 247.15-253.00 m - generally more massive, homogeneous.							

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						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)
		283.00-286.27 m: as @ 272.80-274.50 m - strongly chloritized.							
		286.27-287.40 m: more massive yet upper contact foliated @ 15-25° CA.							
		387.40-292.80 m: as described from 283.00-286.27 m - 'wormy' felsic fragments comprise ~ 25% of interval; lower contact good semi-massive py band over 1.05 m.							
292.80	473.82	MAPIC METAVOLCANIC	202577	324.50	326.00	1.50	12	2	66
		(Locally strongly mineralized py: po.)	202578	326.00	327.66	1.66	56	2	134
			202579	329.87	330.67	0.80	1	2	56
			202580	347.67	348.30	0.63	16	2	56
		Dark grey-green to slightly lighter green in weakly altered intervals.	202581	350.85	351.65	0.80	39	2	40
			202582	369.50	370.75	1.25	38	2	56
			202583	387.75	388.60	0.85	1	2	50
		- generally fine-grained and fairly massive, though some sections show weak foliation which varies between ~25-50° CA, generally around 30° CA.	202584	391.43	392.88	1.45	1	2	48
		- locally, strongly fractured giving a 'crackled' appearance to some intervals.	202585	393.50	394.50	1.00	1	2	50
		- pervasive irregularly oriented calcite veinlets in upper part of interval are common (~ 0.5%) to ~ 314.70 m; below this, only minor presence tending to occur near dyke contacts or adjacent small shears/faults.	202586	394.50	395.50	1.00	1	2	52
		- irregular network of planar and folded thin, wispy qz and qz-ser/ep veinlets; generally minor in upper part and numerous from ~ 328.60 m (~ 1-2%, locally)	202587	395.50	397.00	1.50	1	2	56
		- minor qz-ser-ep patches exception upper contact zone above 'argillitic melange'.	202588	397.00	398.60	1.60	1	2	40
		- core is relatively hard; some zones indurated; fairly competent except: 299.00-299.47 m - broken core at lower contact; fracture parallel CA; 315.89-316 m - broken core @ ~ 30° CA; 326.39-326.35 m - broken core; 337.85-337.96 m - minor gouge-fault @ ~ 46°.	202589	398.60	400.00	1.40	1	2	46
			202590	400.10	400.60	0.50	1	2	44
			202591	410.60	411.10	0.50	1	2	48
			202592	413.25	414.25	1.00	1	2	40
			202593	414.25	414.65	0.40	1	2	44
			202594	414.65	416.65	2.00	1	2	44
			202595	420.70	421.00	0.30	13	2	44
			202596	425.25	427.00	1.75	1	2	60
			202597	428.75	429.90	1.15	1	2	38
			202598	429.90	430.15	0.25	5	2	28
			202599	438.00	439.45	1.45	1	2	54
			202600	439.45	441.00	1.55	1	2	46
			27701	444.00	445.00	1.00	21	4	80
			27702	464.38	466.00	1.62	16	2	64
			27703	466.00	468.00	2.00	19	2	54
		- mafic volcanics are locally strongly to generally moderately magnetic throughout.	27704	470.30	471.30	1.00	14	4	74
		- mineralization: minor local concentrations of disseminated py:po, sometimes in the form of stringers to locally strongly disseminated to semi-massive patches and stringers as at:							

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS			
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)
		324.50-327.66 m; 329.87-330.67 m; 347.67-348.30 m; 350.85-351.65 m; 369.50-370.75 m; 387.75-388.60 m; 391.43-392.88 m; 393.50-401.15 m (includes 1.50 m section of * 90% pyrrhotite); @ 410.60-411.10 m.							
		302.40-403.13 m: intensely altered, fractured grey-dark green-epidote green and reddish coloured rock - upper contact in brecciated/sheared, chloritic @ * 45° CA (good slickensides); two main directions of fracturing 25° and 30° but each are @ 130° from each other; lower 25 cm sheared giving rock a foliation @ 30° to CA; rock breaks @ angle to this; non-magnetic; no sulphides; lower contact @ 30° to CA is gradational into chaotic argillitic "melange".							
		303.13-308.15 m: Purplish argillaceous "melange" - dark maroon (reddish-purplish-brown) with light green qz-ep veins and medium grey fragments. - very fine-grained; moderately to strongly foliated @ * 20-15° CA, but varies to 30° CA. - qz-epic veins, lenses and cc veinlets, * 3%, seem to be oriented subparallel to foliation; coarse light-medium grey very fine-grained fragments with sharp irregular outlines (could be dykes but not like good chills seen previously), more like a siltstone, but doesn't show bedding or foliation - massive & minor silicification @ 306.00 m. - fairly hard, but can be scratched with nail. - negligible magnetite except strong from * 306.40-307.02 m where mixed argillaceous material is altered/silicified with minor chlorite. - no sulphides. - sharp intrusive irregular lower contact @ roughly 25° CA.							
		308.15-309.54 m: felsic intrusive dyke: light grey, strongly fractured dark green "crackled" look; minor pinkish-salmon coloured lines; coarse-grained but diffuse. - probably granitic, strongly silicified; thin fractures; chloritic; massive though brecciated, competent. - non-magnetic; no sulphides - lower contact is slightly irregular; sharp @ 30° CA.							
		309.54-314.78 m: Mafic metavolcanic - lighter grey-green, slightly more altered; silicified to 310.10 m with minor cc; well foliated varying from 20° CA @ 310.42 m to 35° CA at 311.90 m (average * 30° CA); chloritic with * 2% disseminated							

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS			
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)
		py clusters from = 313.90-314.25 m.							
		314.78-322.00 m: slightly more Chloritic Mafic metavolcanic; minor po and py-po stringers.							
		322.00-322.85 m: mafic late chilled dyke - upper contact @ 36° CA; lower contact @ = 75° CA.							
		322.85-334.06 m: mafic metavolcanic with localized moderate mineralization; moderately chloritic; irregular wispy stringers and blobs of py with po; finely disseminated po & py, = 3-4% py, 2-3% po.							
		334.06-336.25 m: mafic dyke - with rounded calcite filled amygdulæ? (diabase). Dark grey; porphyritic-rounded calcite filled (<0.5 m - 2 mm diameter) comprising = 2% of core; medium-grained, dioritic; weakly magnetic; trace-minor fine-grained disseminated interstitial py; sharp chilled upper contact @ = 50° CA and lower chill @ = 40° CA. 1 cm dykelet @ 337.20 m.							
		336.25-393.50 m: strongly veined (qz-ep/sericite) - mafic volcanic; very weakly magnetic to non-magnetic to = 347.67 m; moderate to strong at to 393.30 m; negligible sulphides until 347.67-348.30 m where rock is strongly chloritized and hosts = 8% disseminated and mainly stringers of rounded granular py; trace po.							
		350.85-351.65 m: silicified, chloritized, could be flow top breccia with = 5-8% py granular accumulations comprise = 15% over 10%.							
		359.70 m: 3 cm wide interflow tuff @ = 50° CA - fine-grained disseminated at to 0.5% = 387.00 m.							
		387.75-388.60 m: interflow sediments(?) strongly chloritic with massive light grey rhyolite(?) from 387.85-387.95 m; patchy qz-ep and = 2% disseminated and stringer py with trace po at contact ends; foliation highly variable but = 35° when strongest.							
		393.30-393.50 m: light grey with green chlorite fractured rhyolite(?); upper and lower contacts @ 54-55° CA; same at 387.85 m.							

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS			
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)
		393.50-401.15 m: moderate to strongly mineralized mafic metavolcanic; stringers and bands of granular to massive py:po generally @ 70-90° CA; core is chloritic but usually massive and not soft.							
		401.15-428.75 m: strongly magnetic mafic metavolcanic; variably mineralized with disseminated py and po; occasional semi-massive veinlets and patches of py/po; poorly defined foliation, but sulphides tend to concentrate along what is probably a foliation @ 70-80° CA.							
		426.42-427.00 m: broken up core; could be small fault but no gouge; fractured @ 69° CA.							
		428.75-429.90 m: * locally silicified, light grey speckles; qz-ep surrounds rounded qz-filled anydroles * 1 mm to 2 mm diameter (3%).							
		429.90-430.15 m: massive py band * 4 cm wide with granular py; stringers of py-po at each end.							
		430.15-430.32 m: interflow tuff with upper 10 cm being magnetic rhyolitic; strongly chloritic; bedding?/foliation @ 60° CA; 1-2% py/po disseminated along foliation; irregular lower contact.							
		430.32-438.35 m: mafic metavolcanic - fine-grained generally massive with porphyritic look defined by round 0.5-1 mm qz-ep/ could be anydroles or "spherulites"; no mineralization, but strongly magnetic (disseminated ml).							
		438.35-441.00 m: interbedded/interflow chloritic rock with light grey rhyolitic tuff intervals - the rhyolitic intervals generally have sharp contacts and occur as bands 3 cm to * 15 cm wide but also as contorted wisps - strongly magnetic. Foliation varies between 60° @ 439.55 m and 45-50° @ 490.90 m; mineralization appears to be disseminated to semi-massive granular accumulations py which appear foliation parallel or occurs along chloritic fractures in rhyolitic intervals.							
		441.00-464.15 m: fairly massive mafic metavolcanic, though usually well foliated @ 55° CA, particularly from 444.00-445.00 m where a probable chloritic interflow sediment occurs. Here, localized 1-2% disseminated fine-grained py associated							

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS			
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)
		with semi-massive mt; very gradual contacts defined by increased chlorite + sulphides and presence of strong foliation, minor cc wisps and fractures beneath dykes.							
		452.83-456.00 m & 456.65-457.15 m: late mafic DYKES - dark grey, very fine-grained to locally medium-grained, massive, with no foliation (mafic volcanic between dykes is strongly calcite and is foliated @ 55°); dyke is also pervasively strongly carbonatized; uniform moderate magnetism; no sulphides; chilled sharp cherty contacts @ 452.83 m = 60° CA; 556.00 m = irregular = 20° CA; 456.65-457.15 m @ = 25° CA.							
		464.15-473.82 m: mafic metavolcanic - of similar composition to 441.00-464.15 m yet displaying irregular foliation which varies from 25-35° CA to parallel CA; slightly harder with minor pervasive light grey silicification; strong chlorite content; mineralized with irregular folded elongated patches or bands up to 05 cm x 10x cm of semi-massive py usually associated with abundant magnetite. Overall = 3-4% to = 468.00 m (0.5% to minor disseminated py beyond to 473.82 m).							
473.82	483.48	QUARTZ-EYE FELSIC TUFF - LAPILLI TUFF							
		- Light grey.							
		- very fine-grained to medium-grained showing well developed foliation @ = 25-30° CA; few lapilli sized flat felsic fragments elongated parallel foliation (up to 2-3 mm); minor local crenulations; up to 3% grey clear quartz eyes (<0.5-1 mm); 2-3% euhedral mt crystals; very siliceous & hard aphanitic matrix. Minor chlorite alteration particularly on fracture surfaces.							
		482.30-482.40 m: fine-grained chloritic-mafic volcanic-fragment? - trace fine-grained disseminated local py.							
		Lower contact @ 23° CA (fairly sharp).							
493.48	541.30	FOLIATED MAFIC DYKE	27705	494.25	495.25	1.00	27	2	70
			27706	498.25	499.50	1.25	978	8	102
		- Dark grey-green with diffuse lighter grey-green alteration patches and spots.	27707	523.50	524.50	1.00	59	4	98
		- core is locally well foliated though grades into massive zones as well, which almost look diabasic. Foliation:	27708	537.50	538.50	1.00	109	2	62
		485.00 m = 27° CA; 490.00 m = 15° CA; 497.00 m = 25° CA.							
		From 523.50-541.30 m: definite massive diabase; more uniform							

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			ASSAYS								
FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba(ppm)	
		homogeneous fine-grained texture; locally crenulated on a fine scale but massive; 0.5% cc wisps & veinlets or fracture coating; variable at weak-moderate. - fine-grained to medium-grained; locally weak to moderately porphyroblastic (qz-ep-feld?) as from 484.65-490.60 m - = 2-4% subhedral to anhedral porphyroblasts (0.5 mm to = 5 mm; 498.00-498.50 m: 1-2% as well as from 499.00-499.50; = 506.50-511.00 m variable to = 3%, though 509.00-509.50 m has = 10% totally epidotized; 517.00-520.00 m; diffuse outlines. Texture is not uniform - quite irregular. - compositionally, rock seems to be composed mainly of amphibole pyroxene-chlorite-feldspar:quartz with abundant magnetite either disseminated throughout or as very fine-grained irregular massive veinlets or fragments; i.e. @ 484.70 m - elongated fragment is irregular = 1 cm x = 8 cm. - irregular silicified and/or epidotized patches comprise = 4-5% of interval; later qz stringers or patches common and occur as irregularly along foliation as well as crosscutting foliation; minor cc wisps. - rock is fairly competent & hard except @ 521.85-523.50 m (local fault); core is broken up and brecciated (522.40 m); sealed with calcite; minor qz+trace ep. - magnetism: moderate to strong except near fault and beyond 523.50 m where it is weak to non-existent. Mineralization consists of locally (0.5% fracture controlled disseminated py, as well as minor fracture controlled cp @ = 458.95 m. Irregularly distributed minor py is common, as well; trace very fine-grained cp? in lower part. Gradual lower contact from = 533.00 m; rock is very fine-grained and chloritic to sharp contact @ 541.30 @ 40° CA.									
541.30	571.65	CHLORITE-BIOTITE-CALCITE ALTERED MAFIC VOLCANIC WITH UNALTERED MAFIC VOLCANIC & LESSER CRYSTAL TOPPS - Medium-dark greyish-green interbedded with white patchy discontinuous cc:qz and associated brownish biotite-rich patches. - very fine-grained to fine-grained.	27709	557.00	558.20	1.20	67	2	66	220	
			27710	558.20	559.20	1.00	8	2	80	310	
			27711	559.25	560.60	1.35	34	4	72	310	
			27712	561.90	563.50	1.60	24	10	88	270	

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			ASSAYS							
FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba(ppm)
		- very strongly foliated, almost chaotic, with fine crenulations or kinking usually in more altered intervals; where foliation is more uniform, it is $\approx 40-60^\circ$ CA, averaging $\approx 45^\circ$ CA. Unaltered intervals are generally homogeneous & massive; $\approx 2\%$ cc and $< 0.5\%$ qz or qz-cclep veinlets (irregular, 0.5 cm to < 1 mm). Compositionally, rock appears to be a mafic metavolcanic, but weakly pervasively silicified (hard, especially in more massive sections); altered zones are $\approx 45\%$ chlorite, 35-40% biolite; 10-20% calcite; 0-5% quartz. Calcite occurs as wisps or irregular discontinuous patches. Strongly deformed altered intervals occur @: 541.30-546.80 m (gradual contacts with mafic massive unit); 556.70-558.20 m (sharp lower contact $\approx 60^\circ$ CA); 449.20-560.30 m; 563.50-565.40 m. Narrow, more felsic intervals are probably interflow tuffs; they are lighter grey-green - siliceous matrix with "grainy" appearance resulting from fine lapilli and/or feldspar crystals; traces of qz eyes noted - sericitic beyond 561.90 m. Tuffs occur at: 558.20-559.20 m (foliated @ 40° CA); 561.90-563.50 m (contacts subparallel foliation @ $\approx 40^\circ$ CA); 565.40-565.84 m (lower contact sharp @ $\approx 30^\circ$ CA); 565.73-575.85 m (upper @ 70°, lower @ 50° CA). Magnetism varies from moderate to weak in massive mafic volcanics. Tuffs, as well as some of more altered chl-bi-cc intervals, are non-magnetic. Mineralization is negligible - trace fine-grained disseminated py, locally. Contacts with all tuffs are sharp; lower contact @ 35° CA.								
571.65	590.75	CHLORITIZED CRISTAL AND ASH TUFF WITH CHERT (MINERALIZED)	27713	573.25	574.75	1.50	874	150	384	400
			27714	574.75	575.25	0.50	643	10	144	240
		Chlorite:quartz:sericite schist with chert.	27715	575.25	575.85	0.60	412	20	638	240
			27716	575.85	577.25	1.40	245	2	158	160
		- medium-light grey or greyish-green tuffs; cherts light grey to white or dark purplish grey.	27717	577.25	578.15	0.90	575	16	110	40
		- very fine-grained to fine-grained.	27718	578.15	578.45	0.30	1660	36	208	40
		- strongly foliated; schistone; foliation varies: 572.20 m: 40° CA; 573.60 m: $60-55^\circ$ CA; 575.90 m: 30° CA; 576.35 m: (laminated) $\approx 40^\circ$ CA; 577.25-580.45 m & 581.00-582.00 m:	27719	578.48	579.73	1.25	548	14	206	60
			27720	579.73	580.45	0.72	1140	64	254	50
			27721	580.45	581.93	1.48	404	18	328	70
			27722	581.93	583.43	1.50	1140	34	206	40

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS			
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)
		strongly deformed, folded, brecciated; 583.70 m: ± 35° CA; 590.58 m: 'dome & basin' folding of chert beds.	27723	583.43	584.93	1.50	560	12	194
			27724	584.93	585.93	1.00	677	42	246
			27725	585.93	587.43	1.50	465	72	439
		Composition: unit varies between minor crystal tuff in upper part of interval to interbedded laminated ash tuffs (qz-chl:ser schist) and qz-rich grey-green or purplish grey massive cherts (< 1 mm to 2 cm beds): from 577.25-582.00 m, interval is mainly grey-green laminated chert (75%). Mafic metavolcanics occur: from 572.45-573.23 m and ± 589.05-590.35 m and possibly the deformed chlorite schist.	27726	587.43	588.43	1.00	418	38	274
			27727	588.43	588.93	0.50	276	30	848
			27728	588.93	590.35	1.42	56	8	144
		Unit is variably weak to generally strongly magnetic due to pyrrhotite bands and disseminations, as well as disseminated magnetite (ash tuffs are non-magnetic).							
		Strong chloritization is pervasive; also acts as matrix to brecciated chert intervals; local silicification present as diffuse whitish-grey silica patches or as wavy irregular quartz veins crosscutting all rock types (0.5 mm to ± 1 cm wide). Quartz veins/patches comprise ± 5-7% of core. - minor local biotite in chloritic domains. - minor sericite in schistose ash intervals. - trace local cc along fractures.							
		Moderately well mineralized: see sample descriptions. Po is most common & occurs as fine-grained disseminations or massive bands or folded veinlets; often parallel to foliation; trace to local ± 50% over 12 cm; overall ± 2-8%.							
		Py is less abundant and also occurs as fine wisps or disseminations as folded stringers or bands; py is usually medium-coarse-grained, granular and has brecciated appearance in massive veins; occasionally present alone in stringers, but more often engulfed in po (trace to ± 2-3%).							
		Cp occurs usually with po, but occurs as splashes in silicified intervals or along fractures which crosscut foliation (trace to locally up to ± 0.5-1%).							
		Sph was observed as very thin hairline stringers or finely disseminated, locally (trace to 0.25%).							
		Rock is fairly competent; gradual lower contact parallel foliation ± 40° CA.							

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS				
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba (ppm)
590.75	596.02	WEAKLY FOLIATED MAFIC VOLCANIC								
		- Medium-dark grey; medium-fine-grained. - homogeneous massive core exhibiting weak constant foliation @ = 30° CA. - minor brecciation @ 394.30-394.56 m as well as @ 595.00-595.25 m; qz-cc cement; 20° and 30° CA, respectively; lower brecciation @ contact over = 5 cm. - feldspar-amphibole pyroxene-chloritized quartz difficult to distinguish composition but core is not very altered; hard. - minor pervasive silicification; minor cc with qz in brecciated zones; trace ep towards bottom of contact; very minor chlorite. - moderate constant magnetism - trace fine-grained disseminated py. - lower contact sharp & irregular @ = 45° CA.								
596.02	598.93	FINE-GRAINED MAFIC TO INTERMEDIATE (LATE) DYKE								
		- Dark-medium greyish-green. - fine-grained uniformly massive showing no foliation. - several fractures usually @ = 35-60° CA, average around 50°, commonly coated with cchrl. - negligible alteration except along fracture surfaces where rock breaks. - non-magnetic - no sulphides. - fairly competent; very hard. - lower contact @ = 25° CA; chloritic.								
598.93	601.98	PLSIC CRYSTAL TUFF	27729	598.93	600.65	1.72	22	264	576	150
		- Light grey; fine-medium-grained. - well defined foliation @ 20-25° CA; almost a qz-chl schist; "grainy" texture. - = 75% qz-rich groundmass; = 10% feldspar phenocrysts; = 5% clear grey qz-eyes; up to 10% variable chlorite; trace brownish biotite. - rock is silicified with = 5-8% irregular folded qz veins = 1-9 mm wide crosscutting foliation; chloritic particularly near upper & lower contacts	27730	600.65	600.98	0.33	73	88	728	50
			27731	600.98	601.98	1.00	53	20	196	40

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS			
						WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)
		- non-magnetic - minor disseminated py, to up to 1%, along the foliation, locally as well fine stringers of reddish brown sph parallel foliation usually adjacent to silicification. - sharp, irregular chloritized lower contact.							
601.98	611.35	FINE-GRAINED QUARTZ-SERICITE-CHLORITIC ROCK	27732	609.00	609.65	0.65	71	16	224
		(Could be slightly chloritized felsic.)	27733	609.65	611.12	1.47	76	26	372
		- medium grey-green; fine-grained; uniform. Strong-weak constant foliation along which fine spots mt? occur; varies a bit down hole from 35' @ 604.50 m to 40' @ 607 m. - too fine-grained to determine composition but locally hard; it is siliceous; strongly foliated almost schistose zones are more chloritic and/or sericitic; "done & basin" @ 610.90 m. - moderately to strongly magnetic; * 2-5% fine-grained to very fine-grained, but disseminated throughout. - trace to 0.5% fine-grained disseminated py, minor trace hairline stringers sph along foliation noted in upper part of sample #27733. - competent - lower contact sharp @ 35' CA.							
611.35	615.25	INTERBEDDED ASH TUFFS, CHERT OR RHYOLITE AND LAPILLI TUFFS	27734	611.35	612.35	1.00	88	16	332
		(Weakly mineralized with sph:py.)	27735	612.35	613.00	0.65	131	34	1040
			27736	613.00	614.17	1.17	84	34	1605
			27737	614.17	615.25	1.08	247	24	644
		Medium grey-green to very light grey; very fine-grained to coarse lapilli size; foliation varies from 35' CA @ upper contact; 55' @ 612.35 m; 60' @ 613.75 m. Broken core @ 614.75-614.80 m; small fault with minor gouge @ * 60' CA. - laminated to variably thicker beds; ash layers * 1 mm to 13 cm thick; chert is irregular but * 1 mm to * 5 cm thick; locally brecciated over * 2 cm in fragments * 0.5 cm diameter; interbedded argillaceous (! chloritic) sediments act as matrix; lapilli tuff abundant from * 613.00-615.05 m hosts 10-12% light grey lensoidal irregular fragments from 1 mm to * 1 cm x 0.5 cm as well as minor cherty bands * 1.5 cm wide and coarse chert fragment 1.5 cm x at least 5.5 cm @ 613.80 m; poorly sorted. - alteration consists mainly of strong chlorite:sericite; minor thin qz-cc stringers; variable moderate mt.							

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			ASSAYS							
FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba(ppm)
		- weak mineralization: 0.25-1% fine to coarse-grained seminated py as well as hairline stringers or disseminated fine-grained sph which, when present, occurs along chert fragment/bands; contacts also noted sph within chert fragment.								
615.25	657.00	QUARTZ-SERICITE-CHLORITIC ROCK (FELSIC?)	27738	620.90	622.30	1.40	524	10	374	30
			27739	623.45	624.45	1.00	283	18	276	110
		Interbedded with felsic crystal & quartz-eye tuff.	27740	627.70	628.55	0.85	1735	4	136	90
			27741	628.55	629.70	1.15	438	6	252	20
		Similar to 601.98-611.35 m, but variably mineralized; medium to light grey-green.	27742	629.70	630.70	1.00	222	6	276	10
			27743	630.70	631.70	1.00	395	4	248	10
		- generally very fine-grained, but crystal tuff intervals show feldspar crystals up to 2 mm diameter from 623.00-623.25 m.	27744	634.30	635.30	1.00	417	10	1150	250
		- foliation well developed though crystal tuff; more massive homogeneous zones don't exhibit a good foliation. Varies between 45° in upper part of interval to 50° CA.	27745	637.00	638.00	1.00	475	4	374	50
			27746	638.00	639.50	1.50	483	2	160	20
		- composition consists mainly of qz with sericite and minor to local variations of chlorite (more massive dacitic(?) intervals have 3-5% black specks mt? (0.5 mm).	27747	639.50	640.85	1.35	407	14	296	20
			27748	643.43	644.45	1.02	264	200	1020	20
			27749	651.96	653.00	1.04	78	2	496	30
		620.90-622.30 m: chloritized ash tuff with rhyolitic tuff bands or stretched out fragments (over ~ 6 cm to wispy, lency fragments ~ 1 mm x 3 mm).								
		* 623.00-627.40 m: up to 15-20% subhedral feldspar crystals (in upper 30 cm) to ghost feldspars (~ 3-5%) in a siliceous matrix.								
		627.00-628.55 m: felsic tuff, 1-3% clear qz-eyes (0.5 mm to 1 mm).								
		639.85-640.83 m: felsic tuff with 1-3% clear qz-eyes. Sharp irregular lower contact with more massive homogeneous dacite?								
		Alteration consists of variable chlorite particularly strong from 637.00-640.85 m. Minor local pervasive silicification present such as from 617.05-617.15 m. Also up to 4-5% irregular qz veins present in chloritized interval from 637.00- 640.85 m; quartz veins are ~ 3 mm wide and usually @ 25° CA. Minor sericite occurs in more felsic foliated intervals (feldspars appear to be sericitized).								
		Magnetism is ubiquitous - moderate to strong except in qz-eye tuff sections where it is not present.								

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

Mineralization consists of varying amounts of po disseminated or in narrow bands parallel foliation, trace to 3-4%; py, trace to 1-2% in granular aggregations with veins or thin stringers, trace to minor amounts generally associated with sph and/or po; sph occurs irregularly in minor amounts generally as hairline stringers parallel foliation or adjacent to silicified zones. Po is dominant to ~ 644.45 m. Below 644.45, py is main sulphide present.

Core is fairly competent; fractured core @ 652.75 m; contacts with definite tuffs are often gradual except where noted.

657.00 671.85 STRONGLY FOLIATED CHLORITE-QUARTZ SCHIST

27750	657.00	659.00	2.00	24	8	260	20
27751	662.00	663.50	1.50	145	4	220	30

- Medium-dark green; medium-fine-grained.
- schistose; strong foliation varies between 40° @ 659.65 m and 60° @ 661.10 m; 50° @ 662.20 m (average ~ 50° CA) to 665.00 m. Broken core due to narrow faults @ 661.73 m @ 60° CA; 665.00-665.68 m @ ~ 45° CA; 666.00-666.40 m @ 40° CA.
- core consists mainly of qz-chl:ser to ~ 664.90 m; looks tuffaceous.

664.90-670.70 m: similar to above but finer grained and stronger chl content due to brecciation; pervasive minor to moderate calcite.

670.70-671.85 m: minor biotite alteration also strongly chloritic and weakly carbonatized.

- minor irregular qz:cc veinlets (<1%); @ 670.00-670.20 m; silicification (greyish & greyish-white quartz).

Moderate to strongly magnetic in schistose tuff interval to ~ 664.90 m; non-magnetic in lower part of interval.

Mineralization consists of fine disseminated py, trace to 2% locally, generally parallel to the foliation and often associated with silicified:cc stringers.

Sharp contact from chloritic rock above to more felsic, qz-ser schist beneath @ 48° CA.

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Cu (ppm)	Pb (ppm)	Zn (ppm)	Ba (ppm)
671.85	676.90	QUARTZ-SERICITE:CHLORITE SCHIST (FOLIATED RHYOLITE)	27752	675.22	675.75	0.53	377	14	200	60
		- light greyish-green to greener in more chloritized intervals. - fine-grained. - strongly foliated; schistose locally crenulated @ 35-40° CA; sheared from 675.65-675.75 m @ 40° CA (minor chloritic gouge); "S" crenulations; ~ 1% disseminated py and vein of semi-massive py replacing qz vein ~ 0.5 cm and 0.3 cm wide @ lower end of sample; chloritic; could be fine lapilli tuff. - composition consists mainly of qz and sericite with varying amounts of chlorite								
		673.50-674.75 m: moderate chlorite content.								
		676.10-676.90 m: moderate chlorite content; could be fine lapilli tuff with very fine-grained lapilli up to 5% of core; ~ 3% qz-cc stringers.								
		- non magnetic. - trace to locally up to 1% fine-grained py which tends to occur along foliation in more chloritized domains.								
676.90	690.45	MASSIVE QUARTZ-SERICITE ROCK (RHYOLITE)								
		- light greyish-green; very fine-grained to medium-grained. - Mainly qz with sericite and variable to minor chlorite; similar composition to schist above. - local crenulations @ 679.40-677.65 m ("S" microfolds), but mostly massive with no obvious foliation. - (0.5% qz-cc stringers generally @ 80-85° CA.								
		685.50-687.00 m: ghost-like lapilli? or remnant rhyolite; this interval has moderate chlorite content and appears to become finer-grained towards lower 10 cm of interval.								
		- minor biotite alteration 688.30-688.55 m - trace weak magnetism in more chloritic intervals-negligible. - trace minor fine-grained py. - fairly sharp lower contact with minor quartz veins 2-1 mm @ 80° CA.								
690.45	699.52	QUARTZ-SERICITE:CHLORITE SCHIST (SHEARED RHYOLITE)								
		Similar to 676.90-690.45 m; slightly more intense deformation								

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

as core is chaotically crenulated; looks like very fine-grained lighter a-lapilli "grainy" nature? At 697 m, foliation is $\approx 90^\circ$ CA.

693.38-694.30 m: slightly more chloritic, more massive, with minor fine-grained biotite(?) at contacts; contacts @ 50° CA; lower contact slightly silicified.
- local folded quartz veins (0.5% of core).

696.60-699.52 m: gradually less deformed; presence of $\approx 0.5\%$ rounded (≈ 0.5 -1 mm diameter) qz-ser-ep? spherulites (0.25% - typical sample @ 698 m.

Non-magnetic.
Minor local disseminated py to 0.5% in lowermost 1 m.

699.52 EOH

Dip Tests: collar $-48^\circ/300^\circ$
 64.01 m $-47^\circ/306^\circ$
 188.98 m $-46^\circ/303^\circ$
 277.37 m $-45^\circ/303^\circ$
 362.71 m $-44^\circ/306^\circ$
 460.25 m $-43^\circ/315^\circ$?
 529.75 m $-43^\circ/304^\circ$
 617.53 m $-37^\circ/304.5^\circ$
 698.00 m $-32^\circ/317.5^\circ$

DOWN-HOLE SURVEY DATA

DEPTH	INCLINATION	BEARING
64.04	-47.00	286.00
188.98	-46.00	283.00
277.37	-45.00	283.00
362.71	-44.00	286.00
529.75	-43.00	284.00

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS			
						WGT%	Cu (ppm)	Pb (ppm)	Zn (ppm)
		DEPTH	INCLINATION	BEARING					
		617.53	-37.00	284.50					
		698.00	-32.00	297.50					
		699.52	-32.00	297.50					

PROJECT: ROBERT'S ARM - GULLBRIDGE

TIT/L 121 Samples

SAMPLE NUMBER	SAMPLE INTERVAL (m)			Cu ppm	Pb ppm	Zn ppm	Ba ppm	SULPHIDES	DESCRIPTION
	FROM	TO	LENGTH						
202532	32.00	34.00	2.00	41	22	68	40	1-2% foliation // py	silicified, chloritized mafic volcanic; local dissem. py @ 10-20% CA
202533	37.70	39.70	2.00	13	22	58	30	3-5% clusters py	as above
202534	51.00	53.00	2.00	16	22	68	40	3% py along foliation	as above
202535	53.00	54.25	1.25	108	22	62	30	1% py	silicified metavolcanic with chl fractures; elongated py xyls
202536	54.25	55.50	1.25	1240	22	68	10	~4% streaks dissem. py	as above with local concentrations dissem. py to 5-10%
202537	55.50	57.50	2.00	182	22	66	20	1% f.gr. py; semi-massive band 1cm wide	as above
202538	69.35	70.80	1.45	33	18	80	20	3% clusters py	brecciated upper contact zone of chloritic volcanic; rust
202539	70.80	72.91	2.11	3	22	50	110	3-4% irreg. conc. py	strong - med. chl mafic volcanic
202540	72.91	73.51	0.60	13	22	54	20	10-12% dissem. py	mafic metavolcanic; cordierite spotted; clusters py look semi-massive, locally
202541	73.51	74.68	1.17	4	22	28	10	3-4% py	banded felsic, siliceous tuff w py along foliation
202542	74.68	75.68	1.00	18	22	66	210	~55% py tr greyish gal?	brecciated cherty rock w semi-massive clusters, nodules py
202543	75.68	77.18	1.50	28	22	80	90	0.5% dissem. py	mafic volc.; numerous gtz-ep-cc veinlets; tr speck gal(?)
202544	84.00	86.00	2.00	9	22	88	60	1% f.gr. py	mafic volcanic
202545	88.00	89.50	1.50	2	22	68	60	1% f.gr. py	mafic volcanic; minor mt along epidote @ 30°/CA
202546	93.85	94.85	1.00	60	22	68	60	dissem. py tr	as above; dissem. py-mt along epidote stringer
202547	108.50	109.50	1.00	61	22	46	20	minor - 0.5% f.gr. py	bleached fault zone
202548	112.50	114.20	1.70	124	12	90	120	8% f.gr. py accumulation	brecciated chloritic tuff; 1-2% mt
202549	114.20	115.05	0.85	104	14	170	90	2-3% py	similar to above; 1-2% mt

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SAMPLE NUMBER	SAMPLE INTERVAL			Cu ppm	Pb ppm	Zn ppm	Ba ppm	SULPHIDES	DESCRIPTION
	FROM	TO	LENGTH						
202550	116.35	119.35	2.00	145	4	106	60	1-2% dissemin. py	mafic volcanic; patches of gtz-ep alteration; mt porphyroblasts
202551	120.03	122.03	2.00	186	10	112	70	1-2% dissemin. py	as above; mt
202552	122.03	124.03	2.00	102	12	82	20	1-2% dissemin. py	as above; mt
202553	141.00	142.70	1.70	118	4	80	30	0.5% localized py	mafic volcanic
202554	147.60	149.10	1.50	40	2	86	20	0.5% localized py	indurated mafic volcanic
202555	160.00	160.25	0.25	810	4	82	10	tr sph 0.5% dissemin. py	chloritized mafic volcanic; tr sph along gtz-ep fractures
202556	164.00	166.00	2.00	700	42	82	10	1% py	as above
202557	166.00	167.50	1.50	372	42	82	50	1-2% py	as above
202558	183.00	185.00	2.00	228	42	78	60	0.5% dissemin. py	as above
202559	185.00	186.00	1.00	1065	42	70	50	0.5% dissemin. py 0.5% local cp	as above; cluster cp over 3 cm associated with α-sil
202560	186.00	188.00	2.00	349	42	62	60	tr dissemin. po 0.5% py	chloritized felsic? bx; patchy irreg. py. ---
202561	198.00	199.80	1.80	34	4	46	40	2-3% patches py	mafic volc. or chloritized felsic irreg wispy bands py; dissemin. gt, mt
202562	199.80	202.00	2.20	5	42	52	20	0.5% py; tr po	as above; up to 10% py over 10cm.
202563	202.80	204.00	1.20	10	42	46	20	10% py	as above; irreg. semi-massive patches or bands 2-4 cm wide
202564	205.10	207.10	2.00	1	42	46	30	1% py; minor po	as above; py occurs along chl-mt fractures or massive band @ 207m.
202565	210.00	211.00	1.00	9	42	54	20	minor py	as above; massive, 1.5 cm wide, py band adj. to cc vein; wk sil. porphyrobl.
202566	226.60	228.60	2.00	92	42	38	20	minor py stringer	altered mafic volc.; sil-ep patches; strong mt
202567	238.00	240.15	2.15	38	4	34	30	2% v.f. gr. py	mafic volcanic

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SAMPLE NUMBER	SAMPLE INTERVAL			Cu ppm	Pb ppm	Zn ppm	Ba ppm	SULPHIDES	DESCRIPTION
	FROM	TO	LENGTH						
202568	244.80	246.80	2.00	5	<2	32	10	0.5% stringer py 2% f.-m. gr. py	altered, silicified mafic volcanic; granular py accumulations
202569	253.00	254.50	1.50	<1	<2	36	30	3-4% patches py	as above
202570	254.50	255.00	0.50	6	<2	40	30	2-3% local dissem. f. py	as above; dissem. f. gr. + cgr. py w 2 bands 9cm + 3cm each of semi-massive py
202571	256.95	257.50	0.55	<1	<2	38	50	2-3% bands + dis. py	as above; slightly contorted
202572	259.00	260.50	1.50	130	<2	36	30	~2% py; tr cp?	as above few irregular stringers semi-massive py; tr cp near lower 35cm
202573	267.25	268.25	1.00	1075	<2	36	20	10-12% py	as above. semi-massive band py with stringers and localized patches py; mt
202574	283.10	284.10	1.00	<1	<2	38	60	1-2% py and po	altered mafic volc; irreg. patches, stringers py
202575	289.50	291.55	2.05	23	<2	34	80	1% py	as above
202576	291.55	292.60	1.05	15	<2	36	50	40-45% f.-cgr py	as above with semi-massive granular py.
202577	324.50	326.00	1.50	12	<2	66	10	3-4% py; 2-3% po	as above; stringers of py; disseminated po
202578	326.00	327.66	1.66	56	<2	134	10	1-3% py; 1% po	as above
202579	329.87	330.67	0.80	<1	<2	56	20	2.5% py; 1% po	as above; lowermost 30cm is semi-massive
202580	347.67	348.30	0.63	16	<2	56	90	8% py; tr po	strongly veined (qtz - ep - ser ± cc) mafic volcanic
202581	350.85	351.65	0.80	39	<2	40	220	5-8% py	as above
202582	369.50	370.75	1.25	38	<2	56	20	1% po 2-5% py	strongly chloritized; qtz-ep patches; f. gr. po surrounds semi-massive py
202583	387.75	388.60	0.85	<1	<2	50	20	2% py; tr po	inter flow tuff? / felsic qtz rich
202584	391.43	392.88	1.45	<1	<2	48	20	1-2% py; minor po	altered mafic volcanic; weakly porphyritic

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SAMPLE NUMBER	SAMPLE INTERVAL			Cu ppm	Pb ppm	Zn ppm	Ba ppm	SULPHIDES	DESCRIPTION
	FROM	TO	LENGTH						
202585	393.50	394.50	1.00	<1	<2	50	30	1-2% po 4-5% py	altered mafic metavolcanic; irregular patches/stringers py
202586	394.50	395.50	1.00	<1	<2	52	10	15% py; tr po	as above; dissem. massive patches py
202587	395.50	397.00	1.50	<1	<2	56	20	5% py; 1% po	as above; stringers py 1mm to 1cm granular py
202588	397.00	398.60	1.60	<1	<2	40	30	0.5-1% py; tr po	as above; strongly magnetic
202589	398.60	400.10	1.50	<1	<2	46	10	90% to 25% local py	massive to semi-massive granular py (90% from 398.83- chest fragm. 400.00m)
202590	400.10	400.60	0.50	<1	<2	44	20	0.5% local py; tr po	moderately chloritic but hard
202591	410.60	411.10	0.50	<1	<2	48	60	1% po; 0.5% py	altered strongly magnetic mafic metavolcanic
202592	413.25	414.25	1.00	<1	<2	40	20	0.5-1% po 0.5-1% py	as above; strong chl; po surrounds coarser granular py
202593	414.25	414.65	0.40	<1	<2	44	30	20% py 1% po	as above; massive granular py replacing gtz-sp patch over 4-5m
202594	414.65	416.65	2.00	<1	<2	44	30	2-3% dissem. po 5% py	as above; irreg. granular py accumulation and folded stringer; str. mt
202595	420.70	421.00	0.30	13	<2	44	40	10% f.-mgr. py 32% f.-mgr. po minor po	as above; semi-massive band py/po
202596	425.25	427.00	1.75	<1	<2	60	30	5% f. dissem. py	as above; sheared from 426.50 - 427.00 @ 50°/CA.
202597	428.75	429.90	1.15	<1	<2	38	30	2% po; 1-2% py	possible interflow sed/tuff; gtz-sp - att ⁿ ; strong mt
202598	429.90	430.15	0.25	5	<2	28	10	35% py	felsic rhyolitic tuff/flow top bx; irreg. massive py over 9m; str. mt
202599	438.00	439.45	1.45	<1	2	54	20	2-3% py	rhyolitic tuff interbedded with porphyritic mafic volc.
202600	439.45	441.00	1.55	1	2	46	20	2% fine py bands	rhyolitic tuff
27701	444.00	445.00	1.00	21	4	80	60	1-2% py	str. chloritic porphyroblastic interflow tuff; semi-massive mt
27702	464.38	466.00	1.62	16	2	64	20	1-2% py	as above; chloritized; locally silicified; magnetic

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SAMPLE NUMBER	SAMPLE INTERVAL			Cu ppm	Pb ppm	Zn ppm	Ba ppm	SULPHIDES	DESCRIPTION
	FROM	TO	LENGTH						
27703	466.00	468.00	2.00	19	2	54	10	4-5% py	chloritized; locally silicified; magmatic mafic volcanic
27704	470.30	471.30	1.00	14	4	74	30	3-4% py	as above
27705	494.25	495.25	1.00	27	2	70	30	0.5% v.f. gr. py	as above; py stringer bound by massive mt @ 495.00 @ 22% x
27706	498.25	499.50	0.75	978	8	102	120	narrow cp stringer along qtz vein 0.5% py	as above with qtz-ep alteration
27707	523.50	524.50	1.00	59	4	98	110	none visible	altered, patchy silica-epidote;
27708	537.50	538.50	1.00	109	2	62	160	tr. f. gr. py tr. v. f. gr. py?	f. gr. chloritic rock
27709	557.00	558.20	1.20	67	2	66	220	none visible	altered mafic volcanic
27710	558.20	559.20	1.00	8	2	80	310	tr f. gr. py	intermediate lapilli tuff
27711	559.25	560.60	1.35	34	4	72	310	tr-0.5% f. gr. py	well foliated tuff
27712	561.90	563.50	1.60	24	10	88	270	tr py	f-m gr. lapilli tuff with tr f. gr. drusem. py.
27713	573.25	574.75	1.50	874	150	384	400	0.5-1% sphalerite cp 3% po; tr py	str. chl ash tuff, locally silicified
27714	574.75	575.25	0.50	643	10	144	240	0.5% cp. minor py 2-3% po stringers	similar to above
27715	575.25	575.85	0.60	412	20	638	240	0.5% cp minor py 1-2% po	similar to above
27716	575.85	577.25	1.05	245	2	158	160	0.5-1% po tr py and cp	chloritized; sericitized ash-crystal tuff
27717	577.25	578.15	0.90	575	16	110	40	2-2% f-m gr. bnd py 1.5% po tr-minor cp	chert and ash tuffs
27718	578.15	578.45	0.30	1660	36	208	40	15% py 2% po	chert & ash tuffs; silicified; brecciated
27719	578.48	579.73	1.28	548	14	206	60	minor to 0.5% py; tr cp 1-2% po; minor cp	mainly chert; bxd near lower end
27720	579.73	580.45	0.72	1140	64	254	50	tr py along folia 2% po; 0.5% cp	brecciated chert; fractured

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SAMPLE NUMBER	SAMPLE INTERVAL			Cu ppm	Pb ppm	Zn ppm	Ba ppm	SULPHIDES	DESCRIPTION
	FROM	TO	LENGTH						
27721	580.45	581.93	1.48	404	18	328	70	~2% po; minor py	brecciated chert & ash tuff
27722	581.93	583.43	1.50	1140	34	206	40	5-6% po; 2% py in po 0.5% cp along fractures	schistose chloritic ash tuff; banded & folded outside veins
27723	583.43	584.93	1.50	560	12	194	30	2-3% po; <0.5% py 0.5% cp	as above
27724	584.93	585.93	1.00	677	42	246	80	minor sph + as cp 4% po; 1-1.5% py	ash tuff; altered with cordierite porph.; minor chert
27725	585.93	587.43	1.50	465	72	430	110	3-4% py; <1% po tr cp	as above; brecciated; folded stringers & dissem.
27726	587.43	588.43	1.00	418	38	274	50	0.5% py; minor sph	chloritic tuff with siliceous bands; magnetic
27727	588.43	588.93	0.50	276	30	848	110	minor dissem. py	chloritic ash tuff
27728	588.93	590.35	1.42	56	8	144	100	1% py; minor sph.	silicified felsic tuff; minor sph stringers along foliation.
27729	598.93	600.65	1.72	22	264	576	150	minor local sph stringers. tr dissem. py	as above
27730	600.65	600.98	0.33	73	88	728	50	tr-minor py	silicified mafic volcanic; strong mt
27731	600.98	601.98	1.00	53	20	196	40	minor dissem. py	silicified mafic volcanic
27732	609.00	609.65	0.65	71	16	224	30	minor - tr py	gtz-ser-chl rock (altered mafic)
27733	609.65	611.12	1.47	76	26	372	40	0.5% py; minor sph	as above
27734	611.35	612.35	1.00	88	16	332	20	0.5% dissem. fg. py	ash tuff; argillaceous sands
27735	612.35	613.00	0.65	131	34	1040	60	0.5% py 0.25% sph	argillaceous sands with cherty bands
27736	613.00	614.17	1.17	84	34	1605	60	0.25% sph around chert 1% f. gr. - cgr. py	lapilli tuff with chert
27737	614.17	615.25	1.08	247	24	644	80	minor py	Chloritic tuff
27738	620.90	622.30	1.40	524	10	374	30	0.5-1% py; 0.25% po	ryolitic tuff interbedded with chl-ser-gtz rock; strong mt

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