

RIO ALGOM EXPLORATION INC.

DIAMOND DRILL LOG

PROPERTY: GULLBRIDGE

HOLE No.: GB-152

Collar Eastings: 90.00

Collar Northings: 100.00

Collar Elevation: 0.00

Grid: MAIN 1988 ext

geochem results on surface.

Collar Inclination: -56.00

Bearing: 125.00

Final Depth: 410.57 metres

Purpose: To test stratigraphy of the Western Alteration Zone and explain anomalous zinc

Logged by: S.M. PHILLIPS

Date: NOV. 3, 1991

Down-hole Survey: TROPART

FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Cu(ppm)	Pb(ppm)	Zn(ppm)	Ba(ppm)
8.90	10.97	R ₂ CASING TO 10.97 m.								
8.90	27.21	B ₂ MAFIC VOLCANICS AND INTERBEDDED TUFFS AND CHERT	39918	26.00	27.50	1.50	18	22	38	34

- Fine-grained medium to dark green interbedded mafic volcanics; medium grey, green tuffs; maroon coloured aphanitic-aescherous argillaceous chert intervals.

- Strongly foliated volcanics and tuffs generally @ 45° CA @ 6.5 m; 40° @ 13.50 m; 35° CA @ 15.65 m; argillaceous cherts are locally brecciated; beds vary between 30° CA @ 17.00 m to 25° CA @ 16.50 m.

- Moderate to strong qtz ± cc veining (up to 5-6%) occur as brecciated veins up to 1.2 cm wide to irregular discontinuous veinlets or discontinuous accumulations which occur parallel to foliation in volcanics and tuffs; veins also present in chert; small percentage of veinlets in cherts crosscut laminations or foliation; some qtz veinlets (± 0.5 mm to ± 3 mm) in cherts are contorted.

- Composition: 75-80% Mafic Volcanics

- Strongly chloritic and argillaceous (clay rich) with minor sericite or talc?; up to 8% qtz ± cc veinlets to 21.50 m; soft core can easily be scratched with steel; non-magnetic.

5-10% felsic tuffs: 15.25-15.99 m.

- Light-medium green grey: ± 20% greyish with weak salmon-coloured tinge to "ghost-like" siliceous lensoidal-shaped lapilli fragments ± 2 mm to ± 1 cm; chloritic, sericitic matrix, too fine-grained to determine exact composition.

15% Chert & Cherty Argillite

- Maroon red; massive intervals are generally siliceous while strongly foliated/laminated intervals have a higher argillaceous component; some intervals host isolated chert fragments in a

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							Cu(ppm)	Pb(ppm)	Zn(ppm)	Ba(ppm)
		strongly foliated chloritic mafic volcanic host, i.e. @ 10.50 m: elongated chert fragment 0.6 cm x 6 cm long; parallel to foliation. 10.80 m: subrounded chert fragment crosscut by qtz-cc veinlets 2 cm x 3 cm. 11.10 m: subrounded chert fragment 3 cm x 4 cm. 11.65-12.20 m: ~ 30% qtz veining with minor associated cc cross-cutting interbedded red chert and chloritic; argillaceous sediments; ~ 3-4 m beds. 15.01-15.25 m: 10% laminated chert fragments (5 cm x 2 cm) in chloritic tuffaceous host with minor epidote. 15.99-16.66 m: 16.76-17.88 m: strongly foliated cherty argillites (50%) in upper interval and ~ 50% siliceous massive chert. 25.30-27.81 m: ~ 60% massive brecciated chert (crosscut by irregular network of qtz & cc veinlets, some are pyroclastically folded); minor disseminated py and tr cp in qtz & cc veinlet; cherts are interbedded with felsic argillaceous sediments/tuffs which are light greyish-brown. - Cherty intervals are weakly to moderately magnetic; nt occurs as very fine-grained disseminations along fractures or beds. - Massive chert is very hard but volcanics & tuffaceous sediments are soft. - Alteration: mainly wispy, discontinuous qtz veins and minor associated calcite; mafic volcanics are strongly chloritic (pervasive) as well as argillaceous. - Negligible mineralization except minor fine-grained py and tr cp in qtz veinlet and fractures crosscutting mafic cherts @ 27.10 m. - Core is fractured, generally in lengths ~ 10-15 cm. - Faults @: 12.60-12.65 m: rubble core with minor gouge; upper contact @ ~ 50' CA. 23.00-23.10 m: rubble; fractured core due to qtz veins; chloritic, schistose mafic volcanic @ 40' CA.								
27.81	41.55	FELSIC VOLCANIC/SHEAR FOLIATED ERYOLITE	38814 38820	35.60 39.75	36.00 41.55	1.00 1.60	31 32	65 8	39 69	38 25
		- Light greyish-yellow with brownish-green tinge; very fine-								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Cu(ppm)	Pb(ppm)	Zn(ppm)	Ba(ppm)
		grained to aphanitic. - Schistose; crenulated; foliation is locally variable due to contortions but generally @ $\approx 40^\circ$ CA (ranges between 35° CA to 60° CA); core looks laminated due to intense foliation; minor more massive, fractured rhyolitic intervals. - Minor thin irregular hairline cc fractures. - Composed essentially of quartz but with variable sericite (10-30) and variable chlorite which increases from $\approx 1-2\%$ from 34.50-37.00 m to $\approx 10\%$ towards bottom of interval. 38.53-31.45 m: More massive grading into foliated 'block' of rhyolite; upper contact @ 50° CA; lower contact @ 60° CA; this interval has a foliation @ angle to shear foliated rhyolite above and below. 36.65-35.95 m: More massive buff-coloured rhyolite crosscut by $\approx 0.5\%$ qtz and chlorite rimmed veins; grades into strongly foliated rhyolite; chlorite content increases with depth; trace fine-grained py. 38.55-41.55 m: Schistose medium grey-green rhyolite with up to 10% chlorite and minor sericite; $\approx 0.5\%$ qtz veins cause brecciation; lowermost 20 cm strongly brecciated and sheared @ $\approx 15^\circ$ CA. - Alteration consists of pervasive and fracture-controlled sericite and chlorite as well as minor cc veinlets and qtz veins. - Mineralization is sparse, but lowermost part of interval which is moderately to strongly chloritic hosts up to 0.5% fine-grained py accumulations and disseminations along the foliation. - Core is generally competent (average breakage $\approx 20-45$ cm except in sheared interval beyond ≈ 38.60 m. - Sheared, brecciated lower contact @ 15° CA.								
41.55	51.85	FRAGMENTED MAFIC VOLCANIC/MAFIC CHLORITIZED TUFFS?	30021	45.00	46.50	1.50	86	2	91	10
			30022	46.50	47.85	1.35	74	2	101	10
			30023	49.10	51.00	1.90	64	2	87	16
			30024	51.00	52.85	1.85	122	2	128	10
		- Dark green; fine-grained; poorly developed foliation in definite mafic volcanic intervals, 41.55-43.75 m; 47.85-48.45 m (upper contact @ 20° CA; lower contact @ 40° CA); very strong in lighter green possible tuff intervals, possible tuff intervals are laminated @ $\approx 40^\circ$ to 35°; schistose fault zones								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Cu(ppm)	Pb(ppm)	Zn(ppm)	Est(ppm)
		have variable foliation. - Irregular network of discontinuous carbonate veins comprise ~ 3% of interval; ~ 1 cm chalc-ndonic qtz vein parallel to CA from 49.70-50.15 m. - Local light greenish silicified, bleached patches along shear/fault zones; minor red hematite lines qtz-cc veins towards lower most ~ 1.5 m. - 51.00-53.85 m: Probable tuffs; very fine-grained ash laminated tuffs @ 35° CA and fine lapilli(?) tuffs; dark green chloritic + sericitic matrix hosting ~ 5% light cream-coloured lapilli(?) (specks ~ 0.2 mm to ~ 0.5 mm). - Non-magnetic. - Mineralization: consists of fine-grained disseminated py and local accumulations of fine-grained to very fine-grained py along foliation; trace speck cp?? - Core is fairly competent though schistose and intensely chloritic from fault @ 43.70-44.00 m: chloritic muddy gouge along shear is @ ~ 20° CA. - Lower most 25 cm is rubbly suggesting brittle faulted lower contact with dyke @ ~ 90° CA; upper dyke contact is ground.								
53.85	59.00	"SYENITIC" DYKE - Reddish-salmon coloured; very fine-grained to aphanitic; massive; crackle breccia. - Intensely fractured; anastomosing network of fine silica + epidote(?) light greenish veinlets give interval a brecciated appearance (affected by brittle deformation in resulting from major fault zone @ lowermost contact). - Alteration consists of ~ 5% fine qtz-ep veinlets and minor cc veinlets; ~ 1-2% dark green-black disseminated mineral, which is altered to chlorite, is occasionally replaced by fine-grained pyrite in a very hard siliceous host rock. - Non-magnetic. - Trace fine-grained disseminated py. - Competent core; average breakage is ~ 25 cm. - Lower most 30 cm is silicified and bleached (light greyish-green) from pervasive qtz-ep.								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Cu(ppm)	Pb(ppm)	Zn(ppm)	Ba(ppm)
		- Fault @ 18' CA is lower contact.								
59.00	59.56	FAULT ZONE								
		- Chloritic mud/gouge at 18-0' CA.								
59.56	90.10	INTENSELY MAFIC VOLCANIC (could be dyke)	30025	87.00	88.00	1.00	38	2	63	14
		- Fine-grained to medium-grained; dark greenish-grey; massive; does not exhibit foliation; crosscut by ~ 1% calcite veinlets at varying angle to CA; locally gives core a brecciated appearance as @ 68.40-69.01 m (main cc: qtz vein is ~ 2-3 mm wide and subparallel to CA.								
		- Composition difficult to determine but probably intermediate; minor epidote associated with calcite veinlet @ 77.00 m.								
		- Non-magnetic; non-mineralized; minor rust spots in calcite fracture @ 87.00-87.15 m.								
		- Can barely be scratched with steel knife.								
		- Competent, average ~ 30 cm up to 50 cm.								
		- Rubbly fractured core @ 89.19 m; fracture along length of CA from 89.25-89.85 m.								
		- Lower contact @ 10' CA.								
90.10	110.10	SHEAR FOLIATED RHYOLITE AND MASSIVE RHYOLITE	30026	90.10	91.50	1.40	10	61	53	15
		- Light grey; aphanitic; local greenish tinge.	30027	91.50	92.80	1.30	11	154	117	17
		- Mostly massive with ~ 10% chloritic & sericitic dark green fractures generally pyritiferous; intensely foliated intervals are schistose towards fault.	30028	92.80	94.80	2.00	20	126	35	10
			30029	94.80	96.80	2.00	100	100	100	N.A.
			30030	96.80	98.80	2.00	100	200	200	N.A.
			30031	98.80	100.60	1.80	5	40	24	16
			30032	100.60	102.60	2.00	7	8	18	14
			30033	112.85	113.85	1.00	6	94	75	16
		- Massive Rhyolite: is qtz-rich amorphous; local zones are silica-flooded, i.e. white qtz present @ 93.05-93.38 m; irregular pervasive flooding ~ 45% of interval as at 95.45-95.68 m; 97.32-97.54 m; 100.31-100.36 m, 100.67-101.70 m; 102.05-103.60 m; 115.32-116.15 m; minor sericite and moderate to variable chloritic fractures throughout host, very fine-								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Cu(ppm)	Pb(ppm)	Zn(ppm)	Ag(ppm)
		grained disseminated py, very fine-grained to fine-grained subhedral py also present throughout rock; locally = 3-4%; on average = 1%; minor grey metallic flecks of galena? along core breakage; trace local specks sph and cp associated with py veinlet; pyrite content diminished beneath fault and galena not observed; non-magnetic; core fairly competent and very hard; average breakage = 15-20 cm; local fracturing @ 99.67 m and @ 102.30-102.60 m @ = 0-10° CA. - Shear Foliated Rhyolite: is now a Qtz-sericite schist with variable chlorite; occurs @: 90.10-91.50 m; variable shearing with minor to moderate pervasive chlorite; fold @ 45° CA. 91.65-91.20 m: Schistosity @ 40° CA; Qtz-sericite schist. 104.48 107.29 Quartz Sericite Schist - Intensely sheared; crenulated; kinked; = 40° CA; only minor fine-grained dissen py to = 0.25%; fracture parallel to CA from 106.60-107.29 m develops into major fault. 107.29 110.85 Fault Zone - Brecciated light green-coloured rhyolite (<1 cm pieces to = 10 cm) with mud/chloritic-sericitic gouge (107.65-109.50 m) subparallel to = 10° CA; = 1 cm wide; very fine-grained dissen py up to 1-2% occurs in chloritic-gouge material; only minor to = 0.75% occurs in more competent rhyolitic frags; trace reddish garnet?; minor Qtz vein. 110.85 110.10 Massive Rhyolite Similar to that described @ 93.20-104.80 m but not as fractured; pervasive irregular dusting of = 2-3% fine-grained and medium-grained euhedral dissen py; minor trace dissen fine-grained galena locally from 113.70-113.85 m; weak foliation defined @ = 30° CA. - Above intervals are non-magnetic. - Pyrite is ubiquitous and variable; occurs as very fine-grained veinlets (fracture controlled) and as fine-grained disseminated locally up to 4-5% generally = 1-2%; local minor fine-grained "flakes" of dissen galena in massive rhyolite (= 92.50-95.80 m);								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Co(ppm)	Phi(ppm)	Fe(ppm)	Ba(ppm)
		trace minor very local ep : sph? - Lower contact @ = 15' CA (folded).								
118.10	123.35	QUARTZ-CHLORITE + SERICITE SCHIST AND SHEARED METAVOLCANIC TUFF	30634	119.00	121.00	2.00	9	26	149	10
			30635	121.00	122.00	1.00	10	21	147	10
		- Medium-dark green with lighter greenish-grey intervals; very fine-grained and aphanitic. 118.10-121.60 m: very strong foliation to crenulated; @ = 10' CA (looks like it could be shear foliated rhyolite or tuff); high silica composition but also strong pervasive chlorite (up to = 15%) giving core dark green colour; minor sericite along foliation; thin discontinuous qtz veins = 0.5% throughout & irregular qtz vein from 119.05-119.25 m pervasive silica flooding from = 121.00-121.25 m (brecciated qtz vein). - Non-magnetic - Relatively hard; more chloritic zones can barely be scratched with steel nail. - Mineralization consists of ubiquitous fine-grained to medium-grained subhedral and euhedral py cubes throughout (= 3% to = 2%; average = 3%) as well as in bands as from 120.60-121.00 m which follow a slightly folded foliation. - Core is competent; breakage = 5-20 cm average = 10 cm; fracture @ 120.25-120.50 m has minor gouge 10"-15"; lower contact is irregular and possibly offset by minor slip. 121.62 123.35 Felsic Volcanic (pyritiferous) - Light grey, aphanitic to almost cherty (amorphous). - Locally massive with mod foliation; fabric defined by fractures (sericitic and chloritic) as well as fracture-controlled pyrite generally @ = 35' CA. - Siliceous composition with variable sericite up to 10% along foliation. Minor chlorite near upper part of interval particularly at contacts of silicified zone which occurs from = 121.00-122.00 m and along pyrite-filled fractures. - Non-magnetic. - Very hard - can't be scratched with steel nail. - Alteration consists mainly of sericite in more foliated								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Cu(ppm)	Pb(ppm)	Zn(ppm)	Fe(ppm)
		dolomite (= 10%); minor chlorite along fractures and minor irregular discontinuous crosscutting qtz veins; upper part of interval has qtz flooding due to qtz vein from 121.80-122.80 m. - Mineralization: mainly fracture-controlled very fine-grained to fine-grained pyrite = 1-2% of interval as well as minor fine-grained disseminated subhedral py. - Competent core; = 50 cm breakage. Sharp lower contact @ 35' CA.								
123.35	169.06	MAFIC VOLCANIC - FOLIATED; STRONGLY CHLORITIC - Dark green, fine-grained to aphanitic; strongly foliated to schistose @ = 50-35' CA. Beyond 136.50 m, core is more uniformly textured and banded disseminated pyrite is virtually not present; minor to = 1% qtz and qtz-cc discontinuous veins (up to 1 mm) and veinlets; some are folded and irregular; minor to 0.5% cc wisps or patches, locally which are generally subparallel to foliation but occasionally crosscutting. - Composition hard to determine but very high chloritic content to the core; minor sericite along slip surfaces too; core is very soft and is easily scratched with steel nail; local specks of ragged-edged whitish-green feldspar? (slightly epidotized, some clay altered) as at: = 135.10-137.50 m (2-3% very fine-grained). 139.10-139.40 m: = 5% and slightly coarser-grained to = 1%; 141.00-141.30 m; 141.65-142.00 m; 142.65-142.94 m; 145.50-146.50 m: feldspar? altered to clay, occur parallel to foliation @ = 35' CA (= 8%); 148.95-149.25 m; 156.95-157.20 m; variable = 0.5-8% subparallel to foliation; 157.00-157.75 m. - Non-magnetic. - Soft core. - Alteration is a pervasive chloritization of mafic minerals in mafic volcanic; homogeneous though slightly darker in upper part of pyritiferous mafic volcanics. - Mineralization: in mafics to 135.10 is ubiquitous and occurs as bands of disseminated fine-grained to coarse-grained subhedral crystals from 0.5% to = 6%. Most abundant sulphides occur from 123.35-125.25 m: = 6-10% py in bands = 1 cm to	38036	127.50	129.50	2.00	113	6	491	12
			38037	129.50	130.50	1.00	335	6	399	11
			38038	130.50	132.00	1.50	120	10	176	17
			38039	137.55	139.00	1.45	NIL	NIL	NIL	NIL

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Cu(ppm)	Pb(ppm)	Zn(ppm)	Si(ppm)
		(1 mm parallel to foliation @ 50' CA; trace cp observed @ 125.59-125.65 m.								
		- Competent core: breakage = 50 cm to = 10 cm.								
		- Fault zone @ 131.85-131.95 m; gouge; 2 mm-0.5 cm fragment chlorite schist @ 75' CA.								
		- Lowest contact of unit @ 20' CA.								
		132.00 133.70 Sheared felsic volcanic (pyritiferous)								
		- As at 121.62 m.								
		- Light grey; very fine-grained aphanitic to cherty; well developed foliation @ = 45' CA; = less py than @ 121.62 m; = 8.5% disseminated py; minor very fine-grained py-filled fractures.								
		- Competent, very hard.								
		- Upper contact @ = 80' CA and sericitic over = 2 cm; lower contact @ 40' CA (= 0.5-1 cm wide pyritiferous band).								
169.06	182.36	PYRITIFEROUS SHEAR FOLIATED RHYOLITE	30040	176.92	178.42	1.50	371	26	245	10
			30041	180.30	182.30	2.00	102	22	220	10
		- (Quartz-sericite schist) interbedded with quartz-chlorite schist.								
		- Light greyish-green; aphanitic. Locally schistose; has laminated and banded appearance along which py occurs; intervals of dark green laminated quartz-chlorite schist also present.								
		- Shear foliated rhyolite is a qtz-sericite schist (= 25-30% qtz; 10-15% sericite; variable chlorite to = 3%, locally along foliation) @: 169.06-170.75 m; 171.75-172.10 m; 172.20-172.33 m (moderate chlorite) and @ 176.60-176.91 m; lowest interval looks mylonitic (<0.5 mm laminations @ 30' CA); irregular white silica flooding @ 176.80-176.91 m.								
		- Non-magnetic.								
		- Very hard, hosts = 1% disseminated fracture-controlled fine-grained accumulations of subhedral pyrite; trace fine-grained cp associated with discontinuous band (1 mm wide) of py @ = 176.80 metres.								

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

- Chlorite schist ± qtz @ ± 45° to CA; core is pervasive chlorite (dark); ± 20-30% of core is siliceous, lighter grey bands ± 0.3 m to ± 1 m (suggesting protolith was felsic tuff or syenitic rhyolite); patchy qtz (deformed qtz veins) comprise ± 0.5% of interval.

- Strong pyrite mineralization occurs as laminations (0.3 m to ± semi-massive to massive bands (± 102 cm) up to ± 25% over ± 20 cm; euhedral disseminated fine-grained to medium-grained pyrite cubes variable but ubiquitous (minor to ± 1-2%); average pyrite content ± 8%; core tends to break along the foliation @ 40-50° CA (25-5 cm pieces); fractured core @ 175.05-175.25 m due to qtz veining and contact with dyke.

174.75 171.75 Mafic Dyke (also at 172.33-175.10 m)

- Dark greyish green; fine-grained; massive; minor thin (0.5 m wide calcite veinlets subparallel to CA, minor qtz-ep fractures. Composition too fine-grained to determine but looks intermediate to mafic; salmon-coloured hematized (composite dyke with diffuse margins) @ 172.50-172.72 m and @ 173.03-173.09 m.

- Moderately to weakly magnetic (fine-grained disseminated).

- Hard (can't be scratched with steel nail).

- No obvious alteration.

- Minor fine-grained disseminated py.

- Competent core (± 30-60 cm pieces).

- Upper contact @ 45° CA; lower contact @ 60° CA; sharp (no distinct chill); @ 172.33. Contact is @ 45° CA at 175.10 m, contact is ground out; fractured qtz vein.

182.36 203.70 MAFIC DYKE

- Dark greyish-green; fine-grained; massive - similar to that described above; ± 0.5% thin hairline fractures calcite, locally; ± 0.5-1% qtz-epidote veinlets (hairline fractures to 2 m wide) @ ± 10-25° CA.

- Moderate magnetism.

- Hard.

- Mineralization consists of minor fine-medium-grained disseminated py as well as minor very fine-grained coating of siliceous

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							Cu(ppm)	Pb(ppm)	Zn(ppm)	Ba(ppm)
		fractures. - Core competent; breakage up to 1.8 m, generally = 35 cm. Sharp upper contact is dark, chilled and irregular at = 28' CA; lower most contact is at 21' CA.								
		188.23 188.67 Mafic Volcanic Inclusion - Dark green chloritic schistose with = 0.5% fine-grained and medium-grained disse py; minor qtz-cc veinlets; non-magnetic; competent but soft due to high chlorite content; upper contact (planar) @ 20' CA; lower contact @ 40' CA.								
		193.00 194.00 Mafic Volcanic - Irregular brecciated incision similar to that described above; contact is angular, subparallel to CA.								
		199.90 200.90 Felsic Tuff/Sediment? - Siliceous; medium grey; medium-grained to granular. Weakly developed crenulated foliation @ = 50' CA; = 85-90% qtz; 10% chlorite; 0-3% sericite; 6.5% fine-grained disse py; non-magnetic; hard, competent. Lower contact @ 50' CA.								
		200.90 201.55 Felsic Tuff - Qtz-ser-chl schist; light grey to greenish-grey fine-grained aphanitic; schistose @ 50' CA; mainly qtz (70%), 20-30% chlorite; = up to 5% sericite; alteration consists of qtz-cc veins which are deformed along the foliation (= 8-10% of interval. Competent; soft except for 2 cm rhyolitic band @ 201.20 m.								
203.70	253.55	SHEAR FOLIATED RHYOLITE (COULD BE TUFFS) QUARTZ-SERICITE-CHLORITE-SCHIST - Light grey with dark greenish-grey bands or laminations; aphanitic; schistose; schistosity variable, but generally between 30-40° CA; locally intense to strongly crenulated and can be @ 10° CA or 90° CA; local small scale folding. - Veins (mainly qtz) are contorted and strongly deformed when present (<1% over this interval, though up to 3-10%	30042	205.90	207.90	2.00	5	2	100	10
			30043	209.85	210.35	0.50	1500	11	163	10
			30044	210.35	211.10	0.75	18	7	50	11
			30045	211.10	211.75	0.65	3700	100	200	N.A.
			30046	211.75	213.75	2.00	366	5	77	10
			30047	218.20	219.20	1.00	15	26	200	10
			30048	231.00	233.00	2.00	669	129	247	15
			30049	246.00	247.00	1.00	958	320	240	22

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Cu(ppm)	Pb(ppm)	Zn(ppm)	Ba(ppm)
		from = 226.00-228.00 m). - Composition is mostly qtz with variable ser and/or chl in darker green interval which occurs parallel to the schistosity; some intervals are definitely shear foliated rhyolites but some of the more banded (1 cm to 3 cm wide) are contorted and could be felsic tuffs. - Host is non-magnetic. - Host is very hard but sericitic and more chloritic domains can be scratched with steel knife. - Alteration consists of sericite and chlorite along the foliation as bands or discontinuous wisps. - Mineralization: ubiquitous disseminated very fine-grained to coarse-grained euhedral to subhedral py; occurs as scattered disseminated cubes throughout as well as localized massive (very fine-grained) bands or disseminated laminations along the foliation; - more massive bands generally also have coarser subrounded py in a very fine-grained pyritic matrix; up to 25% over 25 cm but on average = 3%. - Core is fairly competent though locally broken up (clay often occurs along foliation or slip surfaces). Breakage = 15-25 cm (generally along the foliation). - Fractured intervals: 205.20 m; 218.00-218.09 m (30"); 219.10-219.20 m (22"); 219.36-219.70 m (= 25"); 219.90 m (40"); 251.48-251.88 m; gouge along slips. - Lower host contact @ 40" CA. 203.70-205.90 m: Qtz 95-98%; sericite 3-5%; chlorite 1-2%; pyrite = 1-2% finely disseminated in more foliated schistose intervals; more massive rhyolitic intervals (> 25 cm) host only minor disseminated py; foliation = 22° to 36° with more foliated domains. 201.90-214.50 m: Stronger chlorite than @ 203.70 m (20-30%; sericite = 5%); 1-5% disseminated fine-grained py along foliation and up to 0.25% stronger cp associated with py; foliation is locally folded and contorted (generally @ 30° CA); 10-20 cm more massive rhyolite bands host minor disseminated py as well as cross-cutting py-filled hairline fractures.								

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DIAMOND DRILL LOG

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	ASSAYS			
						WIDTH	Cu(ppm)	Pb(ppm)	Zn(ppm)
		214.50-218.35 m: Similar to 203.70 m; 85-95% qtz, 15-10% sericite; (2-3% chl locally; py is foliation parallel ± 3-4% overall with most occurring as semi-massive bands up to 1 cm wide @ ± 215.75 m @ 30° CA; qtz-chl schist @ 217.20-217.60 m with sharp upper contact @ 25° CA and gradual interfingering lower contact. - Lower most 2.0 cm hosts ± 20% py (massive and coarse-grained granular) @ ± 30° CA.							
		218.35-222.70 m: Qtz-ser-chl schist: dark green interbedded with narrow light grey felsic bands (1 mm to ± 0.5 cm wide or intervals up to 20 cm wide of sheared rhyolite; evidence of folding by changes in schistosity: ± 30° CA to 20° CA; 0° @ 221.65 m (contact between 15 cm interval of felsic qtz ± ser schist and chlorite schist - ± 2% subhedral to euhedral fine-grained py disseminated throughout and ± 1-2% local folded bands (0.25 mm to ± 1 cm of very fine-grained-massive py and associated coarse-grained; gradational interfingering lower contact @ ± 30° CA with more felsic qtz-ser-schist.							
		222.70-253.55 m: Qtz-ser schist with variable chlorite along schistosity; more siliceous than 218.35 m though gradational intervals are as chloritic; coarse light yellow wisps sericite common. Chloritization intensifies adjacent to dyke near bottom of interval. 229-231 m - foliation variable: intense deformation; irregular pygeatic chaotic folding particularly from ± 229.00-231.00 m; generally foliation is ± 30° CA; 0° @ 237.70-237.80 m; 65° CA from ± 245.00-246.70 m. - Massive quartz-veined rhyolite from ± 247.00-247.20 m with lower undulating contact with bore chl-ser schist @ 15° CA. - Mineralization consists of ubiquitous fine-grained disseminated foliation parallel py ± 1-2% overall; ± 1% as semi-massive irregular bands, i.e. @ 247.74-247.79 m (granular and semi-massive py @ 35° CA). Up to 20-35 cm more chloritic and schistose intervals as @ 238.97-239.40 m and ± 249.00-250.00 m host ± 1% euhedral disseminated cubic fine-medium-grained py scattered throughout (doesn't seem to be controlled by foliation and probably metamorphism resulting from dyke); minor to trace scattered ep.							

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Co(ppm)	Pb(ppm)	Zn(ppm)	Ba(ppm)
		- Irregular deformed white qtz veins common.								
251.80	252.15	Mafic-Intrusive Dyke								
		- Medium grey; aphanitic; massive; weakly magnetic; sharp lower contact @ 25° CA; 10 cm subrounded dyke fragment from 252.20-252.30 m.								
252.55	275.45	MAFIC VOLCANIC?	30050	257.50	259.00	1.50	386	6	83	14
		- Pervasive chloritic py ± cp rock.	30051	262.50	263.00	0.50	395	16	82	10
		- Dark green; aphanitic, more homogeneous rock; poorly developed foliation; weak to moderate foliation seems to be outlined by elongation of sulphide blebs and discontinuous veins or stringers generally @ 35-55° CA.	30052	265.00	266.00	1.00	2026	12	78	31
		- Minor local late qtz veins with trace local cc generally at 60-85° CA; about 1 mm to 1 cm wide.	30053	266.60	267.00	1.00	4600	100	260	N.A.
		- Composition is mainly pervasive chlorite.	30054	267.00	269.00	2.00	900	100	206	N.A.
		- Core is non-magnetic.	30055	269.00	271.00	2.00	2300	100	400	N.A.
		- Interval is soft due to high chlorite content; can easily be scratched with steel nail.	30056	271.60	272.50	1.50	600	100	200	N.A.
		- Mineralization consists of ± 1-5% coarse-grained rounded blebs of pyrite ± 1 mm to 1 cm diameter generally ± 0.5 cm diameter; coarser pyrite is often brecciated; ± 1% of pyrite occurs as an aggregate of fine-grained and coarse-grained py (irregular patches or veinlets or stringers); up to 0.5-1% scattered cp blebs and fine-grained disseminations occur associated with py often replacing it or as thin discontinuous stringers along chlorite slips; trace local po associated with chalcopyrite. Est. cp/py is from ± 266.00-267.00 m.	30057	272.50	273.50	1.00	1600	100	206	N.A.
		- Core is generally competent; breakage ± 25-30 cm on average.	30058	273.50	275.45	1.95	1062	9	80	10
		- Qtz-ser-chl schist inclusions (or interbeds) @ 261.55-261.75 metres; gradational contacts defined by distinct foliation in definitely more siliceous rock @ ± 30° CA.								
		- 261.92-262.30 m: As above; undulating upper contact @ ± 30° CA; fractured lower contact @ ± 35° CA.								
		- 263.16-264.86 m: Interbedded qtz-ser schist and chl schist; appears to be folded; "down & basin" pattern @ 263.35 m; ± 1%								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Cu(ppm)	Pb(ppm)	Zn(ppm)	Sa(ppm)
		fine-grained disse foliation - parallel py; minor traces cp along chl slips; at 264.36 m see two phases of deformation; earlier fabric @ 65° CA and later fabric @ 40° CA. - sharp lower contact @ 70° CA.								
275.45	281.30	QUARTZ - SERICITE - CHLORITE "SCHIST"	30059	275.45	276.45	1.00	474	4	48	12
		- Dark greenish-grey to light grey; aphanitic; strong, well developed foliation; strong py banding @ 40-60° CA. - Core is siliceous with pervasive chlorite; minor irregular discontinuous white qtz veins. - Non-magnetic. - Generally hard though more chloritic "laminations" (slips) are easily scratched with steel nail. - Alteration consists mainly of variable chl along the foliation. - Mineralization consists of fine-medium-grained subhedral to euhedral disseminations along foliation up to 8-10% as at 276.68-279.60 m; trace cp associated with py but generally all scattered disseminations. - Core fairly competent breakage 15-40 cm; average = 20 cm. Broken core due to qtz veins @ 276.46-276.65 m @ 40° CA. - Sharp lower contact with dyke @ 30° CA.	30060	277.00	278.50	1.50	249	32	64	10
281.36	300.05	MAFIC DIORE	30061	286.00	289.50	1.50	729	15	35	10
		- Dark grey, fine-grained; massive; no veining; intermediate to mafic in composition with <0.5% white fine-grained rounded calcite specks; qtz veins (< 0.5 cm wide) @ 20° CA @ 295.29-298.25 m cause bleaching and ser-chl alteration from = 285.70-298.00 m. - Uniformly mod-wk magnetism. - Hard, can barely be scratched with steel nail. - Negligible mineralization; trace fine-grained disse py. - Pyritiferous felsic tuff inclusions @ 284.32-284.42 m: undulating sharp irregular contact (bleached lighter grey	30062	290.20	291.38	1.18	1586	8	62	47

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Cu(ppm)	Pb(ppm)	Zn(ppm)	Ba(ppm)
		chilli). 297.22-291.30 m: Qtz : ser-chl schist with banded pyrite (similar to 275.45-281.30 m) with local minor cp. = 15-20% fine-grained bands (= 0.5-1.5 cm wide) of granular pyrite from = 257.86-289.50 m; less chloritic felsic tuff intervals seen to interfinger with chloritic banded pyrite intervals and host minor to 0.25% py. - Upper contact @ 30" CA; lower contact @ 40" CA.								
300.05	307.80	QUARTZ-SERICITE SCHIST : CHLORITE - Medium-dark greenish-grey and light grey "worn" folded light grey bands and "ghost-like" fragments? also present; strong to intensely foliated; local folding; schistosity varies = 28-30° CA. - Up to 4-5% irregular, deformed white qtz veins; (1 m to = 8.5 cm; tectonically folded subparallel foliation as well as crosscutting foliation (see reference from = 305.60 m). - Composition varies from = 60% siliceous qtz-rich - 35-35% chlorite; 5% sericite to = 302.10 m (protolith could have been lapilli tuff) to intervals of = 60% qtz - 45% sericite or 80% qtz - 20% sericite. - Non-magnetic. - Alteration consists mainly of variable ser and/or chl along the schistosity. - More qtz-rich domains are very hard while majority of interval is soft due to sericite : chlorite and can easily be scratched with steel nail. - Mineralization consists of minor to 2% euhedral : subhedral disseminated py; most abundant py occurs in more chloritic intervals. - Core is competent and tends to break along the foliation; breakage = 15-25 cm. - sharp lower contact @ 20" CA into more homogeneous chloritic rock.								

309.60 314.82 MAFIC VOLCANIC(?)

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Cu(ppm)	Pb(ppm)	Zn(ppm)	Ba(ppm)
		- Fine-grained; dark-medium grey-green; more homogeneous, uniform textured rock; moderate foliation $\angle$ 55° CA/ locally. - Minor qtz-cc veins which are also where interval becomes schistose; gouge developed along these narrow sheared zones at 312.80-313.00 m: $\angle$ 40° CA; 313.80-313.86 m $\angle$ 55° CA at lower contact $\angle$ 52° CA. - Composition difficult to determine due to fine-grain size but appears to be mafic; strong chlorite-sericite-clay $\pm$ 3-4% patchy qtz-ep is common; clay commonly present along breakage surfaces. - Non-magnetic. - Very soft, core can easily be scratched with knife. - Mineralization: trace to negligible fine-grained disseminated py. - Core easily breaks $\pm$ 10 cm pieces; several narrow sheared, gouge filled intervals $\pm$ 5 cm wide. - Lower contact defined by qtz-cc vein $\angle$ 50° CA.								

314.82 315.72 QUARTZ-CHLORITE-CALCITE SCHIST (SEDIMENT?)

- Very fine-grained, dark grey-green and light grey bands/beds as well as foliation - parallel wispy to banded white cc and qtz-cc bands (0.5mm to 0.5 cm); "zebra-stripes".
- Strong-intense foliation $\angle$ 65° CA.
- Composed of $\pm$ 60% qtz-chl material; $\pm$ 20% felsic siliceous, sometimes discontinuous, bands $\pm$ 0.5 mm to $\pm$ 0.6 cm wide; 15% calcite $\pm$ qtz wisps and discontinuous bands/veins which tend to pinch and swell along foliation; up to $\pm$ 5% sericite or argillaceous material.
- Non-magnetic.
- Variable hardness; only siliceous light grey beds can not be scratched with steel nail.
- Alteration consists of pervasive patchy bands calcite along foliation.
- Negligible mineralization: trace-minor fine-grained disseminated py.
- Competent core tends to break along chloritic $\pm$ sericitic slips.
- Gradational lower contact into underlying tuffa and sediments.

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Co(ppm)	Pb(ppm)	Zn(ppm)	Sa(ppm)
314.92	316.43	Felsic Dyke - Brownish-salmon coloured (due to hematite?); aphanitic groundmass with = minor ghost-like subhedral feldspar phenocrysts (<0.2 mm - 1 mm). - Minor discontinuous fractures of cc. - Massive, non-magnetic; very hard (can't be scratched with steel nail; no mineralization. - Competent; upper contact sharp @ 65° CA; lower contact uneven @ = 30° CA.								
319.72	418.57	INTERBEDDED FELSIC OR ASH TUFFS, SEDIMENTS AND RED CHERT - Light grey to light greyish-green with some yellowish brown beds as well as red-salmon chert beds (4 mm to = 30 cm wide); very fine-grained as in the ash tuffs (have laminated appearance), fine-grained argillaceous sediments, aphanitic felsic volcanics and amorphous cherts; minor siliceous brecciated massive salmon coloured rhyolite? - Foliation well defined in tuffs and volcanic intervals and seems to be parallel to bedding which varies locally from = 35° 55° CA. - Composition: highly variable. 319.72-341.93 m: Interbedded felsic qtz-ser rich tuffs (10%) with argillaceous clay-rich or chloritic sediments (60%) and beds of granular medium-fine-grained quartzose sediment (25 cm thick) (10%); 5% siliceous brecciated qtz-veined rhyolite (= 10 cm wide intervals (= 5%); 1 cm red argillaceous weakly magnetic chert band @ 75° CA @ 341.15 m; no sulphides. Bedding/foliation @ 60-70° CA; sharp lower contact @ 60° CA. 322.40 339.05 Felsic Porphyritic Dyke - Aphanitic; brownish-salmon coloured similar to that described from 314.92-316.43 m, except more porphyritic with subhedral fine-medium-grained feldspar phenocrysts (= 0-10%); massive. - Core is more blocky and fractured in pieces (< 1 cm to = 20 cm; 326.00-328.58 m fractured into < 1 cm angular pieces of core; chloritic breakage surfaces common. - Upper contact is silicified with minor cc @ = 90° CA; lower								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Cu(ppm)	Pb(ppm)	Ag(ppm)	Ba(ppm)
		contact is sharp @ 45° CA.								
		341.93-344.60 m: Brecciated massive rhyolite? Mainly siliceous aphanitic interval with local moderately-well foliated intervals over 20 cm @ 60° CA.								
		- 20% white qtz flooding; 2% qtz-sericite anastomosing hairline veinlets; negligible sulphides except trace np along fractures.								
		344.60-370.44 m: Finely laminated ash tuffs (5%) and local minor elongated (3 cm x 1 cm lenticular to 1 mm x 1.5 cm to 2 mm x 1 m) lapilli fragments (= 350.62-352.55 m); sericitic grey argillaceous seds (50%) interbedded with red argillaceous sediments (10%) bands (1 mm wide to more massive siliceous chert intervals up to 35 cm wide as @ 353.60-353.95 m (= 25%); bedding is generally planar with local minor brecciation as well as local parasitic folding. Foliation bedding @ 42-45° CA. From 359.00-370.44 m, bedding/foliation @ 55-60° CA.								
		- Irregularly distributed patchy qtz-cc veins 2% of interval generally occur parallel to bedding/foliation; minor epidote veinlets; sericite and lesser chlorite often along breakage surfaces.								
		- Red chert is magnetic (fine-grained disseminated); negligible sulphides present.								
		- Core is generally easily scratched with steel knife with the exception of siliceous cherts.								
		- Core is blocky - breakage in pieces parallel to bedding/foliation; 2 cm to 40 cm; average 15 cm.								
		- Gradational interbedded lower contact @ 60° CA.								
		370.44-402.15 m: Mainly argillaceous sediments and felsic tuffs (qtz-sericite schists) some are locally brecciated (could be coarse lapilli or block tuff); fine-grained ash tuffs towards bottom of interval. No red cherts present; local small scale brecciation sealed with qtz @ 400.12-400.30 m.								
		- Bedding schistosity @ 50-70° CA; i.e. 50° @ 375.00-375.50 m; 70° @ 380.15-386.55 m; 55° @ 392.00-396.00 m.								
		- Local silicified zone @ 385.95-386.46 m; massive siliceous unit with crosscutting 1 cm wide qtz vein @ 58° CA and @								

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	FROM	TO	WIDTH	ASSAYS			
							Cu(ppm)	Pb(ppm)	Zn(ppm)	Ba(ppm)
		355.40-357.40 m. Irreg qtz veining common, locally up to 25% over = 28 cm. - Minor traces fine-grained disse py.								
		376.95-379.82 Intermediate Porphyritic Dyke - Fine-grained to medium-grained; dark-medium grey; massive. - Biotitic in composition; planar 2 mm wide qtz-cc vein @ 12' CA from 376.45-379.28 m. - Moderate uniform magnetism; no sulphides; competent - entire dyke length is one piece of core. - Hard; very fine-grained chilled margins over = 50 cm @ upper contact. Contact @ 65' CA; and over = 1 m at lower contact; lower contact @ 40' CA.								
		395.65-397.73 Porphyritic Intrusive Mafic Dyke - Same as that described from 376.95-379.82 m except up to 6.5% planar qtz-epitec veinlets. - Upper contact @ 55' CA; lower contact @ = 45' CA.								
		402.15-404.80 m: Interbedded greenish & dark grey chloritic argillaceous sediments (25%); felsic tuffs (qtz-ser schists) (35%) and interbedded red cherts (10%); = 35% felsic lapilli tuff & welded tuff; i.e. 404.10-404.60 m - irregular ragged edged dark green fragments? (see reference @ 404.30 m); grades into felsic lapilli tuffs. - Foliation/bedding is irregular; 60' and brecciated from discontinuous deformed qtz : cc veins @ 403 m; 45' @ 404 m; slightly contorted and brecciated from discontinuous deformed qtz : cc veins from 403.30-409 m. Chlorite content increases beyond = 405.20 m. - Negligible sulphides; gradational lower contact.								
		405.00-412.57 m: Chloritic rock with up to 10% sericite; very soft fabric poorly defined @ = 45' CA; sericitic anastomosing veinlets as well as qtz-cc veinlets comprise = 7% of section.								
		416.57 EOE								

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

Acid/Tropari Tests:

Collar -56°/124°
Acid test @ 47' (14.32 m) -56° --
Tropari: 160.25 m -55°/128°
365.76 m -51°/126°

DOWN-ROLE SURVEY DATA

DEPTH	INCLINATION	BEARING
14.32	-56.00	124.60
160.25	-55.00	128.00
365.76	-51.00	126.20
410.57	-51.00	126.00

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PROJECT: 8807 ROBERT'S ARM

SAMPLE NUMBER	SAMPLE INTERVAL From To Length			Cu ppm	Pb ppm	Zn ppm	Ba ppm	SULPHIDES	DESCRIPTION
1. 30018	26.00	27.50	1.50	18	22	30	34	tr cp in qtz vein	Interbedded chert and argillaceous sediments
2. 30019	35.00	36.00	1.00	31	65	39	38	tr specks of py	Shear foliated rhyolite
3. 30020	39.75	41.55	1.80	31	8	69	25	0.5% dissem. py	Strongly chloritic, sheared rhyolite
4. 30021	45.00	46.50	1.50	86	2	91	10	0.5% dissem. py	Sheared mafic volcanics or chloritic tuffs
5. 30022	46.50	47.85	1.35	74	2	101	10	minor py; tr cp?	Chloritic ash tuffs; qtz-cc veinlets
6. 30023	49.10	51.00	1.90	64	2	87	10	minor dissem. py	As above; crosscut by chalcedonic qtz veins
7. 30024	51.00	52.85	1.85	122	2	128	10	0.5% dissem. py	strongly sheared mafic volcanic; could be chlorite tuff
8. 30025	87.00	88.00	1.00	38	2	63	14	tr fgr. dissem. py	rusty mafic volcanic
9. 30026	90.10	91.50	1.40	10	61	53	10	none visible	sheared, brecciated rhyolite; str chl-ser
10. 30027	91.50	92.80	1.20	11	154	117	17	3% py	sheared rhyolite in chloritic matrix
11. 30028	92.80	94.80	2.00	20	126	38	10	tr gal, cp, sph 4% v.f. gr py	sheared rhyolite; chloritic fractures
12. 30029	94.80	96.80	2.00	0.01%	0.01%	0.01%	-	minor py, tr gal, sph	sheared rhyolite
13. 30030	96.80	98.80	2.00	0.01%	0.02%	0.02%	-	minor py, tr gal, sph	brecciated massive rhyolite
14. 30031	98.80	100.60	1.80	5	40	26	10	1% py; tr cp	rhyolite; chl along fractures
15. 30032	100.60	102.60	2.00	7	8	18	10	up to 3% py	rhyolite; fracture-filling py
16. 30033	112.85	113.85	1.00	6	94	75	10	minor f.gr. py, galena	rhyolite; veinlet of py
17. 30034	119.00	121.00	2.00	9	26	149	10	2-5% dissem. py	chlorite-sericite schist; pervasive diss. bands py.
18. 30035	121.00	122.00	2.00	10	21	147	10	~8% dissem. py	chlorite ± sericite schist; thin bands diss. py.
19. 30036	127.50	129.50	2.00	113	6	491	12	0.5-1% dissem. py	chloritic mafic volcanic

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 SAMPLED BY: S.M. PUDIEIN

PROJECT: 8807 ROBERT'S ARM

SAMPLE NUMBER	SAMPLE INTERVAL			Cu ppm	Pb ppm	Zn ppm	Ba ppm	SULPHIDES	DESCRIPTION
	From	To	Length						
20 30037	129.50	130.50	1.00	335	6	199	11	1% dissem. py; minor cp	chloritic mafic volcanic
21 30038	130.50	132.00	1.50	120	10	178	17	"	"
22 30039	137.55	139.00	1.45	WHOLE ROCK				minor - negl. py	"
23 30040	176.92	178.42	1.50	371	26	245	10	8-10% py	banded pyritiferous chloritic felsic(?) tuff
24 30041	180.30	182.30	2.00	102	22	220	10	~10-12% py	chloritic laminated tuff; 1-2mm semimassive py bands
25 30042	205.90	207.90	2.00	5	2	100	10	15% c.a. for py; ^{tr cp?} minor cp	qtz-sericite-chl schist
26 30043	209.85	210.35	0.50	1500	11	183	10	3% py; minor cp; ^{tr cp?} minor cp	siliceous, rhyolitic tuff
27 30044	210.35	211.10	0.75	18	7	50	11	2% f-mgr py	qtz-sericite chl schist
28 30045	211.10	211.75	0.65	0.37%	40.01%	0.02%	-	3% py; 1% cp; ^{tr cp?} minor cp	sheared chloritic felsic volcanic
29 30046	211.75	213.75	2.00	366	5	77	10	2-3% py; minor cp	qtz-chl schist; probably lapilli tuff
30 30047	218.20	219.20	1.00	15	26	200	10	10-12% py; ^{tr cp?} minor cp	chlorite schist - (shear foliated thypolite?)
31 30048	231.00	233.00	2.00	669	129	247	15	1% py; minor ^{tr cp?} minor cp	qtz-ser schist
32 30049	246.00	247.00	1.00	958	320	840	22	5% py (chert-stuff); minor cp	qtz-ser schist; foliation-parallel dissem py; cp replacing py
33 30050	257.50	259.00	1.50	386	6	83	14	3-5% py; minor cp	chloritic mafic(?) volcanic
34 30051	262.50	263.00	1.50	395	16	82	10	1% py; 0.25% cp	chloritic mafic(?) volcanic; scattered py along discontinuous bands
35 30052	265.00	266.00	1.00	2026	12	78	11	4-5% py; 0.25% ⁺ cp	Intensely chloritic rock; discontinuous sil. laminae w py
36 30053	266.00	267.00	1.00	0.46%	40.01%	0.02%	-	6-8% py; 1-2% cp	Chlorite schist; house-like cgr. py; cp replacing py
37 30054	267.00	269.00	2.00	0.09%	40.01%	0.02%	-	2-3% py; 0.25% cp	"
38 30055	269.00	271.00	2.00	0.23%	40.01%	0.04%	-	3-4% py; 0.5-1% cp minor po	"

SAMPLED BY: S.M. AUDIFIN

[illegible]

ICP Geochemistry Certificate

NOV 18 1991

Client: Rio Algom Exploration Inc.
 Geologist: Maia Pudifin
 Project: 8807
 Sample: Core

Eastern Analytical Limited
 P.O. Box 187,
 Little Bay Road,
 Springdale,
 Newfoundland.

Signed by:

D. Furey, G. Smith

(Concentrations in assay range
 may cause interferences in
 associated elements.)

DskFile:171-6691

DateIn: Nov 04, 1991

DateOut: Nov 08, 1991

Phone: 709-673-3909

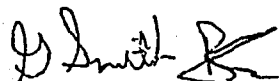
Fax: 709-673-3409

SAMPLE #	Ce ppm	Sr ppm	Ba ppm	Fe %	P %	Hg ppm	Hg %	As ppm	V ppm	Na %	Mo ppm	Al %	Be ppm	Ca %	Zn ppm	Cu ppm	Sb ppm	Ag ppm	Pb ppm	Bi ppm	Ti %	Cd ppm	Co ppm	Ni ppm	W ppm	La ppm	K %	Mn ppm	Rb ppm	Cr ppm
30018	22	13	34	1.50	0.07	1	0.36	7	8	0.02	1	0.55	0.5	2.05	30	18	5	0.3	22	2	0.01	0.5	9	16	10	10	0.20	1769	20	60
30019	11	5	38	0.33	0.01	1	0.07	5	2	0.05	1	0.25	0.5	0.70	39	31	5	0.2	65	2	0.01	0.5	1	3	10	10	0.23	326	20	91
30020	12	27	25	1.85	0.03	1	0.95	5	25	0.05	1	1.28	0.6	3.22	69	31	5	0.2	8	2	0.01	0.5	7	10	10	10	0.11	1692	20	83
30021	10	31	10	4.17	0.03	1	2.67	5	140	0.04	1	2.86	1.2	>5.50	91	86	5	0.2	2	2	0.05	0.5	26	49	10	10	0.01	1278	20	152
30022	10	34	10	3.81	0.03	1	2.58	5	125	0.05	1	2.72	1.3	>5.50	101	74	5	0.2	2	2	0.06	0.5	25	58	10	10	0.01	1261	20	190
30023	10	19	10	3.76	0.03	1	2.52	9	100	0.05	1	2.54	1.0	3.83	87	64	5	0.2	2	2	0.08	0.5	29	42	10	10	0.01	1262	20	81
30024	10	20	10	5.22	0.05	1	3.17	7	139	0.04	1	3.35	1.2	4.49	128	122	5	0.2	2	2	0.08	0.5	34	39	10	10	0.01	1703	20	92
30025	17	27	14	4.15	0.09	1	2.83	7	93	0.04	1	2.94	0.9	3.43	63	38	5	0.3	2	2	0.05	0.5	26	79	10	10	0.07	1046	22	120
30026	11	12	10	1.60	0.02	1	0.78	13	25	0.06	1	0.90	0.5	1.76	53	10	5	0.2	61	2	0.01	0.5	6	6	10	10	0.03	549	20	119
30027	16	4	17	2.09	0.03	1	0.97	5	22	0.05	1	1.21	0.5	0.48	117	11	5	0.2	154	2	0.01	0.5	4	5	10	10	0.07	701	20	106
30028	10	2	10	1.95	0.01	1	0.23	38	8	0.03	6	0.34	0.5	0.22	38	20	5	0.3	126	2	0.01	0.5	9	5	10	10	0.04	230	20	162
30031	10	2	10	1.36	0.02	1	0.44	11	8	0.04	3	0.52	0.5	0.14	26	5	5	0.2	40	2	0.01	0.5	3	7	10	10	0.02	393	20	173
30032	10	1	10	1.63	0.02	1	0.29	9	6	0.04	2	0.35	0.5	0.06	18	7	5	0.2	8	2	0.01	0.5	4	6	10	10	0.02	292	20	166
30033	10	2	10	2.62	0.04	1	0.43	11	14	0.05	1	0.53	0.5	0.16	75	6	5	0.4	94	2	0.01	0.5	4	9	10	10	0.02	452	20	169
30034	10	3	10	7.44	0.11	1	1.80	19	35	0.03	1	2.50	0.5	0.20	149	9	5	0.2	26	2	0.01	0.5	15	22	10	10	0.03	2301	20	99
30035	10	4	10	9.87	0.07	1	3.33	49	162	0.04	5	3.44	0.5	0.13	147	10	5	0.5	21	2	0.02	0.5	46	37	10	10	0.05	2389	20	107
30036	10	58	12	3.65	0.08	1	2.86	5	153	0.06	1	2.79	0.8	2.52	491	113	5	0.2	6	2	0.04	0.5	22	28	10	10	0.03	1779	20	103
30037	10	7	11	5.18	0.07	1	3.81	19	150	0.05	1	3.47	0.6	0.29	199	335	5	0.2	6	2	0.02	0.5	27	29	10	10	0.06	1812	20	93
30038	10	6	17	6.26	0.08	1	4.29	23	136	0.04	5	3.97	0.6	0.17	178	120	5	0.2	10	2	0.02	0.5	32	32	10	10	0.10	2005	20	86
30040	17	6	10	>10.00	0.11	1	2.01	154	49	0.02	1	3.09	0.5	0.22	245	371	5	0.8	26	2	0.01	0.5	30	51	10	10	0.03	3376	20	88
30041	18	6	10	>10.00	0.13	1	1.76	106	40	0.03	1	2.86	0.5	0.26	220	102	5	0.2	22	2	0.01	0.5	35	64	10	10	0.02	1654	20	104
30042	10	3	10	3.60	0.03	1	2.20	9	19	0.03	1	2.45	0.5	0.06	100	5	5	0.5	2	2	0.01	0.5	7	7	10	10	0.10	734	20	90
30043	10	2	10	3.72	0.03	1	1.09	25	8	0.03	3	1.25	0.5	0.04	183	1500	5	0.4	11	2	0.01	0.5	7	7	10	10	0.09	401	20	137
30044	12	2	11	2.88	0.02	1	1.39	5	7	0.03	1	1.53	0.5	0.03	50	18	5	0.2	7	2	0.01	0.5	3	4	10	10	0.11	472	20	67
30046	10	2	10	5.42	0.02	1	2.26	18	23	0.03	1	2.61	0.5	0.02	77	366	5	0.6	5	2	0.01	0.5	10	8	10	10	0.10	742	20	65
30047	10	4	10	>10.00	0.07	1	3.96	62	130	0.03	50	4.33	0.5	0.12	200	15	5	0.7	26	2	0.02	0.5	70	52	10	10	0.10	1541	20	130
30048	10	2	15	1.83	0.02	1	0.52	5	5	0.04	1	0.71	0.5	0.05	247	669	5	0.2	129	2	0.01	0.5	4	3	10	10	0.09	268	20	107
30049	17	2	22	6.33	0.03	1	1.04	11	9	0.03	1	1.49	0.5	0.04	840	958	5	0.7	320	2	0.01	11.4	23	6	10	10	0.11	481	20	90
30050	10	3	14	>10.00	0.13	1	3.13	16	140	0.03	1	5.01	0.5	0.22	83	386	5	0.4	6	2	0.01	0.5	33	27	10	10	0.09	1398	20	62
30051	10	3	10	>10.00	0.13	1	3.03	31	160	0.02	1	>5.50	0.5	0.21	82	395	5	0.2	16	2	0.01	0.5	31	25	10	10	0.07	1436	20	67
30052	10	2	11	>10.00	0.13	1	2.16	26	137	0.03	1	4.85	0.5	0.20	78	2026	5	0.5	12	2	0.01	0.5	43	22	10	10	0.07	1261	20	78
30058	10	2	10	>10.00	0.12	1	2.37	41	190	0.03	1	5.12	0.5	0.19	80	1062	5	0.3	9	2	0.01	0.5	46	24	10	10	0.06	1443	20	68
30059	10	1	12	4.60	0.04	1	0.87	12	35	0.03	1	1.89	0.5	0.05	48	474	5	0.2	4	2	0.01	0.5	11	8	10	10	0.07	519	20	102
30060	10	1	10	>10.00	0.02	1	1.50	84	78	0.01	1	3.26	0.5	0.01	84	249	5	0.2	39	2	0.01	0.5	37	54	10	10	0.01	963	20	91
30061	18	7	10	>10.00	0.14	1	1.24	62	70	0.03	1	3.13	0.5	0.33	30	729	5	0.4	15	2	0.01	0.5	75	53	10	10	0.05	807	20	82
30062	10	9	47	>10.00	0.11	1	2.76	9	166	0.04	1	5.07	0.6	0.21	63	1586	5	0.2	8	2	0.02	0.5	30	21	10	10	0.29	1503	20	65

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RIO ALGOM EXPLORATION
SUITE 407, 212 QUEEN ST
FREDERICTON, NB
E3B 1A7

Method: ASSAYS
Sample: Core

Sig. : 
Douglas Furey, Graham Smith

Page 1
Disk File: E1716692
Report : 6692
Date : Nov 08, 1991
Project: 8807

SAMPLE #	% Cu	% Pb	% Zn	oz/T Ag
30029	<0.01	<0.01	<0.01	<0.02
30030	<0.01	0.02	0.02	<0.02
30045	0.37	<0.01	0.02	0.06
30053	0.46	<0.01	0.02	0.03
30054	0.09	<0.01	0.02	<0.02
30055	0.23	<0.01	0.04	<0.02
30056	0.06	<0.01	0.02	<0.02
30057	0.16	<0.01	0.02	0.02