PASMINCO LTD - ROSEBERY

DIAMOND DRILL RECORD

OBJECTIVE : To explore down plunge , to the south of J Lens

RESULT : No host rock in this position

PASMINCO LTD - ROSEBERY

DEPTH : 1540.7

HOLE SIZE: NQ

COMMENCED: Jan 91

COMPLETED: March 91

Depth	Direction	Dip	Depth	Direction	Dip

COLLAR DIP : -86 HOLE No: : 114R-03

DIRECTION : '047 RMG LOCATION : Mt Black

NORTHING : -297.1 LOGGED BY : C.H.L.

EASTING : 1377.6 COLLAR RL : 3582.5

FROM	TO	DESCRIPTION	ALT	CD	ROCK TYPE	MINERALISATION	SAMPLE NO.	FROM	TO	L
318.0	561.0	Mt Black Volcanics 318 to 387.2 Medium grey, porphyritic altered ,feldspar phyric rhyolitic/dacitic volcanic ;Siliceous alteration partly obscures textures; 2 to 3mm felsic phenocryst set in an aphanitic mesocratic siliceous matrix; occasional thin wisp white carbonate and or quartz veins; small pervasive fractures infilled by chlorite/biotite;very uniform interval except for some bleaching around thicker quartz veins; some core loss due to navi drilling.	sil devit	B	sil fels vol	Isolated rare euhedral fine pyrite crystals.				
		387.2 to 435.5 Coarse grained , feldspar phyric volcanic breccia , auto brecciated dacitic /rhyolitic 5mm clasts set in an aphanitic melanocratic matrix; feldspar phyric with secondary feldspar in the matrix and vague outlines of primary feldspar in the clasts; unit has vague upper contact and gradational lower contact and could represent the auto brecciated top of a lava flow; traces of biotite/chlorite alteration in the matrix and infilling micro-fractures. Rare traces of fluorite associated with occasional wispy thin discontinuous carbonate veins.	biot chl	C C	Auto Bkd dac/rhy lav	Very fine grained sparsely disseminated pyrite predominantly confined to the matrix and on the margins of micro fractures.				
		435.5 to 561m Light to medium grey , feldspar phyric altered dacitic/rhyolitic volcanic ; silica alteration at first becoming less siliceous down hole; feldspars are at first silica altered then sericite altered and or biotite/chlorite altered; felsic crystals become larger and more numerous as alteration changes; some brecciated areas due to secondary chlorite veining which could represent minor shearing; occasional white carbonate veins at 45 degrees to core axis; rare traces of fluorite.	sil biot chl ser	C C C C	fels sil vol	Sparsely disseminated very fine grained pyrite generally associated with chloritic alteration.				
561.0	565.0	Fault zone, white bug fill with siliceous			Fault	No visible mineralisation				

Depth	Dip	Azimuth	$	To	RQD% <S=Shear>
0.00	-86.00	47.00			
30.00	-86.00	49.00			
60.00	-86.00	47.00			
90.00	-86.00	48.00		369.3	75
120.00	-86.00	53.00		372.0	20
150.00	-86.00	58.00		384.2	75
201.00	-85.80	57.00		385.2	10
252.00	-86.00	60.00		441.5	70
303.00	-85.80	53.00		561.0	80
318.00	-85.50	52.00		565.0	0
330.50	-85.50	54.00		671.0	80
337.00	-85.50	55.00		786.5	75
345.00	-85.00	53.00		790.4	20
351.00	-85.00	64.00		869.4	75
363.00	-85.00	63.00		873.0	40
375.00	-86.00	65.50		897.5	80
387.00	-84.50	62.00		915.5	20
400.00	-84.50	68.00		932.0	75
406.00	-84.00	62.00		960.4	50
413.00	-83.50	61.00		999.0	75
420.00	-83.00	65.00		1053.0	65
429.00	-82.00	68.00		1174.0	50
433.00	-80.00	77.00		1229.0	75
441.00	-79.00	77.50		1284.0	80
450.00	-79.00	82.00		1296.5	30
462.00	-77.50	87.00		1350.5	60
474.00	-76.00	91.00		1365.2	55
484.00	-75.00	93.00		1420.0	60
492.00	-74.00	93.00		1424.7	40
504.00	-73.00	97.00		1522.5	70
510.00	-72.50	98.00		1526.7	30
522.00	-71.00	102.00		1540.5	55
528.50	-71.00	103.00		eoh	
534.00	-71.00	103.00			
543.00	-70.00	105.00			
549.00	-69.00	106.00			
564.00	-69.00	113.00			
570.00	-69.00	114.00			
576.00	-69.00	114.00			
588.00	-69.00	114.00			
594.00	-69.00	114.00			
600.00	-69.00	115.50			
606.00	-69.00	117.00			
612.00	-69.00	117.00			
627.00	-71.00	118.00			
630.00	-71.00	118.00			
636.00	-70.00	118.00			
642.00	-70.00	118.00			

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DIAMOND DRILL RECORD

DEPTH : 1540.7

HOLE SIZE: NQ

COMMENCED: Jan 91

COMPLETED: March 91

Depth	Direction	Dip	Depth	Direction	Dip

COLLAR DIP : 86

DIRECTION : '047 RMG

NORTHING : -297.1

EASTING : 1377.6

HOLE No. : 114R-D3

LOCATION : Mt Black

LOGGED BY : C.H.L.

COLLAR RL : 3582.5

FROM	TO	DESCRIPTION	ALT	CD	ROCK TYPE	MINERALISATION	SAMPLE NO.	FROM	TO	Fe %	$	To (S=Shear)	RQD%
		volcanic angular clasts; earlier chlorite veining visible in some clasts suggesting earlier ductile movement.			breccia	associated with the fault but clasts have rare extremely fine grained pyrite.							
565.0	1365.2	MT BLACK VOLCANICS											
		565 to 632.1 Light to medium grey , feldspar phyric altered dacitic/rhyolitic volcanic ; silica alteration at first becoming less siliceous down hole; feldspars are at first silica altered then sericite altered and or biotite/chlorite altered; felsic crystals become larger and more numerous as alteration changes; some brecciated areas due to secondary chlorite veining which could represent minor shearing; occasional white carbonate veins at 45 degrees to core axis; rare traces of fluorite ; basal contact suggests unit has been intruded by underlying lithology; chloritically altered base has clasts of underlying unit showing hyaloclastic texture embayed into upper unit. This appears to be a repeat of previous unit suggesting a displacement of about 130m on the fault; ie. easterly block has dropped.	sil biot chl ser	C C C C	fels sil vol	Sparsely disseminated very fine grained pyrite generally associated with chloritic alteration.							
		632.1 to 893.0m Fine grained chlorite altered siliceous igneous intrusive; probably originally feldspar phyric but feldspars chloritised and then stretched to form a weak foliation; upper boundary is sharp with hyaloclastic material embaying into overlying unit ; weak foliation at 30 degrees to core due to alignment of chlorite alteration. Feldspars become more euhedral , larger and more abundant towards centre of interval; marginally more siliceous towards base of unit with ghost perlitic cracks evident; very sharp basal contact at 75 degrees.	chl ser	B C	chl sil ig int	Extremely rare, very fine grained isolated pyrite crystal.							
		893.0 to 900.4 Dark green . medium grained feldspar phyric chlorite altered igneous rock; sharp upper and lower boundaries; medium grained	chl	A	fel vol & chl alt	Abundant extremely fine grained disseminated pyrite throughout.							

Depth	Dip	Azimuth
666.00	-70.00	123.00
684.00	-69.00	129.00
690.00	-69.50	129.00
696.00	-69.00	129.00
702.00	-69.00	129.00
711.00	-69.00	133.00
717.00	-69.00	133.00
723.00	-69.00	134.00
735.00	-69.00	133.00
747.00	-70.00	138.00
750.00	-70.00	138.00
753.00	-70.00	139.00
756.00	-70.00	139.00
762.00	-70.00	139.00
768.00	-70.00	139.00
780.00	-72.00	143.00
786.00	-71.50	143.50
792.00	-71.00	144.00
798.00	-71.00	145.00
807.00	-72.00	149.00
813.00	-72.00	150.00
819.00	-71.50	151.00
831.00	-71.00	155.00
837.00	-71.00	156.00
849.00	-71.00	162.50
855.00	-71.00	163.00
861.00	-71.00	164.00
867.00	-71.00	165.00
873.00	-70.00	165.50
879.00	-70.00	167.00
891.00	-70.00	170.00
906.00	-70.00	174.00
930.00	-68.00	182.00
960.00	-67.00	188.00
990.00	-66.00	198.00
1020.00	-64.00	211.00
1053.00	-62.50	218.00
1113.00	-59.00	228.00
1147.00	-59.00	230.00
1188.00	-58.00	232.00
1218.00	-57.00	233.00
1257.00	-56.50	235.00
1296.00	-56.00	238.00
1326.00	-55.00	239.00
1362.00	-55.00	242.00
1392.00	-54.00	243.50
1436.00	-53.00	245.00
1494.00	-51.50	247.00
1540.00	-52.00	249.00

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COMPLETED: March 91

Depth	Direction	Dip	Depth	Direction	Dip

COLLAR DIP : 86

DIRECTION : '047 RMG

NORTHING : -297.1

EASTING : 1377.6

HOLE No. : 114R-D3

LOCATION : Mt Black

LOGGED BY : C.H.L.

COLLAR RL : 3582.5

FROM	TO	DESCRIPTION	ALT	CD	ROCK TYPE	MINERALISATION	SAMPLE NO.	FROM	TO	Length	Pb %	Zn %	Cu %	Ag g/t	Au g/t	Fe %	$	To RQD% <S=Shear>
		closely packed felspars in an aphanitic chlorite matrix ; truncated by carbonate veins parallel to core axis , traces of fluourite associated carbonate.																
		900.4 to 987.5m Dark grey fine grained, altered dacitic/rhyolitic vocanic; feldspar phyric in part with sericite/chlorite altered feldspars ; patches of silicified dark alteration could represent original feldspars that have been altered then stretched; weak foliation due to elongation of alteration patches; some bleached sections associated with carbonate veins; occasional quartz tourmaline veins; unit is more feldspar phyric in the centre with larger and more abundant feldspars; foliation angle 35 degrees to core axis.	chl ser sil	C C C	dac/rhy lav/int & alt	Medium to coarse grained pyrite associated with veins ; very fine grained rare pyrite throughout .											
		987.5m to 998.0m Light grey to light brown , fine grained , siliceous volcanic; probably rhyolitic ; occasional ghosts of feldspars but essentially aphanitic with traces of flow banding; rare tourmaline veins ; no foliation.	sil	B	rhy lav	Extremely fine grained very sparse disseminated pyrite.											
		998.0m to 1020.8 Medium to fine grained , dark grey , occasionally feldspar phyric , devitified siliceous lava; vague devitrification spherulites with cuspate patches of chlorite/biotite alteration; amygdaloidal at the top with spherical to elipsoidal quartz filled amygdals; becoming finer grained more chloritic and more homogeneous at the base;blebby concentrations of sulphides associated with biotite/chlorite alteration ; weak foliation at 35 degrees to core due to stretching of alteration patches.	devit biot chl	A B B	Rhy vol	Blebby concentrations of fine grained pyrrhotite , arsenopyrite associated with dark alteration patches.											
		1020.8 to 1060.5 Dark grey ,feldspar phyric	ser	c	Fels phyr	Extremely fine grained pyrite,											

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		foliated altered volcanic; 2mm feldspars some euhedral ,occasional euhedral quartz in a melanocratic aphanitic groundmass; alignment of crystals with foliation at 30 degrees to core.	chl	c	vol	pyrrhotite and another silver coloured mineral disseminated throughout.													
		1060.5 to 1101.9 Light grey to cream , fine to medium grained intrusive ; lobate upper boundary with siltstone xenoliths ; granular texture, felsic with albite alteration;pyrrhotite from disseminated to masive; sharp lower boundary ; bleaching and silicification at upper and lower boundary ; weak foliation due to vague alignment of alteration.	sil alb	B C	fels sil ig int	Fine grained disseminated pyrrhotite throughout with lesser pyrite and arsenopyrite; 1X20cm band massive pyrrhotite at 1082.7m; pyrrhotite most abundant in areas truncated by thin tourmaline veins													
		1101.9 to 1167.2 Black with sections of very light grey; feldspar phyric fine grained igneous rock; alteration varies from chloritic in black sections to siliceous in bleached sections; very fractured unit with alteration obscuring most of the original texture; ghost feldspar evident in part and occasional relic flow banding ; cleavage well developed in dark colour areas and absent in light coloured siliceous parts; xenoliths of black slate with irregular boundaries at lower contact suggesting some soft sediment may have been incorporated in the rock ; lower contact suggests rock has been intruded by underlying unit.	chl sil	B B	alt fels sil vol	Disseminated and blebby concentrations of pyrite ,pyrrhotite with lesser chalcopyrite throughout, occasional wispy discontinuous veins of pyrrhotite. Traces of very fine grained arsenopyrite visible in slabbed sections under the micrscope.													
		1167.2 to 1175.5 Light grey ,fine grained silicified igneous intrusion , upper boundary very sharp with 5cm zone of auto brecciation; lower boundary sharp irregular and lobate; extreme silicification has obscured original texture ; very brittle fractured unit; foliation absent.	sil	A	sil alt ig intr	Disseminated and blebby concentrations of pyrite ,pyrrhotite with lesser chalcopyrite throughout, occasional wispy discontinuous veins of pyrrhotite. Traces of very fine grained arsenopyrite visible in slabbed sections under the micrscope.													
		1175.5 to 1226.5 Black to very dark green . fine	chl	A	sil chl														

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		grained chlorite altered volcanic ; very pronounced foliation almost mylonitic ; pyrrhotite mineralisation for first 5m of interval; occasional minor feldspar phyric areas with feldspars elongated in plane of foliation ; unit could represent shear zone			vol	Abundant ,fine grained disseminated pyrrhotite for first five metres of interval ; rare disseminated pyrrhotite and pyrite in remainder of interval.													
		1226.5 to 1230.3 Light to dark grey very coarse grained volcanic breccia, 2mm to 3cm volcanic lithic clasts in an open siliceous matrix ; stretched clasts and elongated black alteration patches impart a vague foliation to the unit.	sil	B	cg vol breccia	Isolated very rare extremely fine grained pyrite crystals.													
		1230.3 to 1303.2 Dark grey with areas bleached to cream ; siliceously altered fine grained igneous rock; occasional ghosts of phyric feldspars; well developed foliation due to discontinuous lenticular concentrations of quartz; minor biotite / chlorite veins as fracture fill; bleached zones at upper and lower boundary; foliation angle 45 degrees.	sil biot chl	A c c	alt sil igneous rock	Isolated very rare extremely fine grained pyrite crystals; coarse grained pyrite and pyrrhotite associated with biotite /chlorite alteration; traces of rare extremely fine grained arsenopyrite.													
		1303.2 to 1350.5m Light brown to very dark grey, fine to coarse grained poorly sorted intensely altered , feldspar phyric siliceous volcanoclastic breccia; 1mm to 3mm angular feldspars sretched along foliation; alternate bands of very dark grey , light grey and light brown alteration obscure most primary textures ; some obvious lithic clasts of volcanics in some areas and some possible pumice clasts; foliated throughout outlined by minor amounts of sericite but unit is dominantly siliceous; fine network of fractures post date foliation and are infilled by biotite/chlorite; alteration obscures upper and lower contact; foliation angle 75 degrees.	sil ser biot chl	A C C C	alt fel sil vol bkd	Very fine grained pyrite and or pyrrhotite very sparsely disseminated throughout; minor magnetite and traces of cassiterite in biotite/chlorite veinlets.													

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		1350.5m to 1365.2m Light to dark grey, Fine to medium grained, feldspar , quartz phyric sericitic volcanaclastic sediment; alternate domains of 1 to 3mm quartz and feldspars in a medium grained siliceous matrix with minor sericite and the same phyric clasts in a fine sericitic matrix with subordinate silica; fine sericite matrix becomes dominant downhole; the last 5m of interval is truncated by numerous 5 to 50cm quartz veins; finely spaced foliation throughout at 75 degrees to core axis.	sil ser	C B	fel sil ser vol sed	Extremely rare, extremely fine grains of pyrite, traces of cassiterite at the margins of some quartz veins.													
1365.2	1540.7	FOOTWALL SEQUENCE ?																	
		1365.2 m to 1369.9m Light grey , fine grained feldspar / quartz phyric , siliceous sericitic sediment; 1 to 2mm feldspars and quartz clasts sparsely distributed through an open fine sericite and silica matrix ; fine white specks of leucoxene alteration throughout similar to that in hanging wall epiclastics ; upper contact abrupt at quartz vein and top 1.5 m of interval is truncated by quartz veins; upper contact could be fault welded by quartz veining; lower boundary could be gradational suggesting unit is thin graded top to underlying unit; fine sericitic shear fabric at 75 degrees.	ser	B	fel sil ser vol sed	Rare , very fine grains of isolated pyrite.													
		1369.9m to 1540.7m Light to dark grey mottled , coarse to medium graine feldspar phyric siliceous volcanoclastic breccia ; variable domains dominated by phyric feldspars and speudo fiamme ; traces of relic pumice tube texture; patchy alteration obscures most primary textures; minor tourmaline veining and alteration throughout; well define shear fabric at 75 degrees to core axis.	sil	B	fel sil FW	Rare , very fine grains of isolated pyrite.													