PASMINCO EXPLORATION
DIAMOND DRILL HOLE LOG

Hole ID
BT2

DRILLING

Location	BROWNS TUNNEL
Project	BURNS PEAK
Prospect	BROWNS TUNNEL
Design By	PMQ
Logged By	PMQ
Relogged	
Commenced	11 April 1996
Completed	23 April 1996
Drilled By	East Coast Drilling
Drill Rig	LM38

OBJECTIVE

To test for the near surface southern continuation of mineralization intersected in EAF6 & EAF9, and to test developing structural/stratigraphic interpretation.

RESULT

Intersected ore grade mineralization close to surface in EAF6 mineralized position, EAF9 mineralized position is barren, lithologies intersected are concistent with developing interpretation.

COLLAR SURVEY (AMG)

AMG mN	5384608.5	Bearing	280.0
AMG mE	377689.2	Dip	-45.0
mN		Hole Length	163.0
mE		DH Survey Type	eastman single shot
RL	477.6		

DOWNHOLE SURVEY (AMG)

Depth	Bearing	Dip
0.0	-45.00	280.00
40.0	-45.00	279.50
70.0	-45.00	280.50
100.0	-45.00	280.50
160.0	-43.50	282.00

SIGNIFICANT CORE LOSS

POOR GROUND CONDITION ZONES

HOLE SIZE

From	To	Size	
0	29.9	HQ	
29.9	163	N	NQ

HOLE CONDITIONS AFTER COMPLETION

Collar	CAPPED
Steel Casing	
PVC Casing	NILL
Ground Water	
Wedge	NILL
Drill Pad	LEVELLED AND SUMP FILLED

SIGNIFICANT INTERSECTIONS

From	To	Int	Cu	Pb	Zn	Ag	Au	Comments
29.4	44.5	15.1	8195	5.9%	9.8%	43	0.53	190ppm Mn 750ppm Ba

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PHYSICAL PROPERTIES / RECOVERIES

Depth	Rec %	Mag	SG	Formn	Lith
131.80				BTS	
4.60				BTS	Lr
2.60	100	0.04		BTS	Lr
2.60	100	0.04		BTS	Lr
3.80	75			BTS	Lr
3.80	75			BTS	Lr
4.40	17			BTS	Lr
4.40	17			BTS	Lr
8.40				BTS	cht
5.00	50			BTS	cht
5.00	50			BTS	cht
5.60	67			BTS	cht
5.60	67			BTS	cht
6.70	100	0.02		BTS	cht
6.70	100	0.02		BTS	cht
8.20	67	0.04		BTS	cht
8.20	67	0.04		BTS	cht
9.40				BTS	?
9.40	25	0.07		BTS	pmf
13.30				BTS	pmf
9.40	25	0.07		BTS	pmf
10.00	67	0.02		BTS	pmf
10.00	67	0.02		BTS	pmf
11.50	13	0.01		BTS	pmf
11.50	13	0.01		BTS	pmf
12.10	67	0.06		BTS	pmf
12.10	67	0.06		BTS	pmf
13.30	25	0.13		BTS	Ld
13.30	25	0.13		BTS	Ld
16.80				BTS	Ld
14.00	92	0.05		BTS	Ld
14.60	92	0.05		BTS	Ld
15.20	100	0.04		BTS	Ld
15.20	100	0.04		BTS	Ld
16.70	93	0.13		BTS	Ld
16.70	93	0.13		BTS	Ld
20.40				BTS	?
18.40	88	0.03		BTS	?
18.40	88	0.03		BTS	?
19.70	115	0.06		BTS	?
19.70	115	0.06		BTS	?
20.80				BTS	sh
20.50	75	0.04		BTS	sh
20.50	75	0.04		BTS	sh
29.40				BTS	Ld
22.00	73	0.19		BTS	Ld
22.00	73	0.19		BTS	Ld
23.60	81	0.06		BTS	Ld
23.60	81	0.06		BTS	Ld
25.10	87			BTS	Ld
25.10	87			BTS	Ld
26.60	93	0.10		BTS	Ld
26.60	93	0.10		BTS	Ld
28.10	107	0.05		BTS	Ld
28.10	107	0.05		BTS	Ld
31.60				BTS	m/s
29.60	100	0.07		BTS	m/s
29.60	100	0.07		BTS	m/s
29.90	83	0.03		BTS	m/s
29.90	83	0.03		BTS	m/s
31.00	100	0.10		BTS	m/s
31.00	100	0.10		BTS	m/s
33.70				BTS	cht
36.50				BTS	pmf
34.00	100	0.01		BTS	pmf
34.00	100	0.01		BTS	pmf
43.00				BTS	cht
37.00	100	0.05		BTS	cht
37.00	100	0.05		BTS	cht
40.00	100	0.01		BTS	cht
40.00	100	0.01		BTS	cht
43.00	100	0.03		BTS	m/s
44.50				BTS	m/s
43.00	100	0.03		BTS	m/s
50.40				BTS	Lr
46.00	82	0.04		BTS	Lr
46.00	82	0.04		BTS	Lr
48.50	104	0.07		BTS	Lr
48.50	104	0.07		BTS	Lr
73.80				BTS	Lr
51.30	100	0.03		BTS	Lr
51.30	100	0.03		BTS	Lr
54.40	95	0.07		BTS	Lr
54.40	95	0.07		BTS	Lr
56.10	106	0.09		BTS	Lr
56.10	106	0.09		BTS	Lr
58.00	100	0.04		BTS	Lr
58.00	100	0.04		BTS	Lr
61.00	103	0.07		BTS	Lr
61.00	103	0.07		BTS	Lr
63.50	96	0.06		BTS	Lr
63.50	96	0.06		BTS	Lr
66.60	100	0.06		BTS	Lr
66.60	100	0.06		BTS	Lr
69.70	100	0.06		BTS	Lr
69.70	100	0.06		BTS	Lr
72.80	100	0.04		BTS	Lr
72.80	100	0.04		BTS	Lr
77.20				BTS	Lr

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PHYSICAL PROPERTIES / RECOVERIES

Depth	Rec %	Mag	SG	Formn	Lith
75.90	100	0.06		BTS	Lr
75.90	100	0.06		BTS	Lr
92.40				BTS	Ln
78.20	100	0.06		BTS	Ln
78.20	100	0.06		BTS	Ln
81.30	100	0.03		BTS	Ln
81.30	100	0.03		BTS	Ln
84.40	100	0.03		BTS	Ln
84.40	100	0.03		BTS	Ln
86.50	95	0.02		BTS	Ln
86.50	95	0.02		BTS	Ln
88.00	100	0.04		BTS	Ln
88.00	100	0.04		BTS	Ln
91.00	100	0.06		BTS	Ln
91.00	100	0.06		BTS	Ln
106.40				BTS	Ln
94.00	100	0.03		BTS	Ln
94.00	100	0.03		BTS	Ln
107.90				BTS	sst
119.60				BTS	Lb
120.40				BTS	sst
125.00				BTS	Lb
125.90				BTS	bx
131.80				BTS	Ln
139.80				PR	Lr
163.00				PR	Ln
163.00				PR	Lr

Depth	Rec %	Mag	SG	Formn	Lith

Depth	Rec %	Mag	SG	Formn	Lith

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PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No. **BT2**

PROJECT:

Vertical Scale 1 : 150

DESCRIPTION					GRAPHIC			
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES
0.00	4.60	RHYOLITE white, massive, feldspar phyric quartz phyric. CONTACT: faulted	moderately bleached. moderately oxidised					FAULT A70 pug breccia
4.60	8.40	CHERT cream pink, fine grained, massive laminated. Cherty silica altered sediments, finely laminated in part, cherty breccia in part, mostly massive. Grain size variations. Interval broken and faulted.. CONTACT: missing	moderately silicified. Typical massive pink cherty alteration.	DISSEMINATED minor pyrite disseminated. minor irregular 5 to 15mm patches of massive very fine grained pyrite in more pumiceous unit, fractured cherts no visible minerlization.				FAULT A80 pug breccia FAULT A70 pug breccia
8.40	9.40	UNASSIGNED. core loss?				???		FAULT
9.40	13.30	PUMICEOUS MASS FLOW white. Uniform grainsize of fine grained pumiceous fragments with feldspar? weathering pits. Associated with significant core loss and major structures.. CONTACT: faulted			10			FAULT FAULT A80 pug breccia
13.30	16.80	DACITE pale green, peperitic. Indistinct peperitic texture.. CONTACT: faultedto LCA	moderately sericitised. bleached green sericite.	DISSEMINATED minor sphalerite disseminated very minor pyrite disseminated. spots of black sphalertie partially repdaced by brown sphalerite alligned with minor cleavage in sediment fraction of peperite. also in discontinous irregular veinlets and fracture infill.				FAULT A30 pug
16.80	20.40	UNASSIGNED buff. Undifferentiated felsic volcanic/volcaniclastic. SHALE black. broken altered and mineralized sediment.. CONTACT: faulted DACITE pale. indistinct felsic volcanic mixed with silicified shale in part. Becoming more silicified and mineralized towards downhole contact.. CONTACT: conformable abruptto LCA			20	???		
20.40	20.80							FAULT pug breccia

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PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No. **BT2**

PROJECT:

Vertical Scale 1 : 150

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DESCRIPTION					GRAPHIC			
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES
20.80	29.40	DACITE pale. indistinct felsic volcanic mixed with silicified shale in part. Becoming more silicified and mineralized towards downhole contact.. CONTACT: conformable abruptto LCA	moderately sericitised. bleached green sericite.	DISSEMINATED minor sphalerite disseminated very minor pyrite disseminated. spots of black sphalertie partially repdaced by brown sphalerite alligned with minor cleavage in sediment fraction of peperite. also in discontinous irregular veinlets and fracture infill.				FAULT A30 pug
				VEIN minor sphalerite in veinlets very minor galena in veins. grey and brown sphalerite rimmed with glena and chalcopyrite in cross cutting fractures. and in folded veinlets.				FAULT A45 shear breccia
			moderately silicified, moderately sericitised. blue grey cherty alteration of fine grained sediments, and green sericite alteration of felsic volcanic component.					FIRST CLEAVAGE A45
29.40	31.60	MASSIVE SULPHIDE dark grey. Massive sulphides: distinct and complex paragenesis: silica alteration; massive fine grained gun metal grey sulphides predominantly sphalerite with galena, with 1mm coarse grained bright pale brown sphalerite porphyroblasts with cholcopyrite in pressure shadows oriented parallel to cleavage. Sphalerite prophyroblasts replaced by chalcopyrite in part. Chalcopyrite in late fine fractures perpendicular to cleavage.. CONTACT: conformable abrupt	massive sulphides	MASSIVE 20% sphalerite massive 5% galena associated with alteration. zone of massive gun metal grey sulphides predominantly sphalerite and galena with minor silica gangue. Abundant 10mm bright pale brown sphalerite porphyroblasts with chalcopyrite forming in pressure shadows elongate parallel with cleavage. Minor coarse grained galena in cores of sphalerite porphyroblasts. Minor fine chalcopyrite filled fractures perpendicular to cleavage. Minor chalcopyrite replacement of sphalerite porphyroblasts. Distinct and complex petrogenesis.	30	m/s		FIRST CLEAVAGE A60
31.60	33.70	CHERT blue grey, fine grained, massive. Cherty alteration, abundant fine fractures, mineralised.. CONTACT: conformable abrupt	intensely silicified. massive blue cherty alteration associated with sulphides.					
33.70	36.50	PUMICEOUS MASS FLOW blue grey, fine grained, massive. cherty alteration of pumiceous sandstone.. CONTACT: conformable abrupt		STRINGER abundant sphalerite as stringers abundant galena as stringers. zone of mineralized cherty alteration, gun metal, red-brown and straw coloured sphalerite present infilling fine fractures in cherty alteration, coalescing into semi-massive pyrite sphalerite galena chalcopyrite patches.				
36.50	43.00	CHERT blue grey, fine grained, massive. cherty alteration of fine grained sediment, finely laminated in part.. CONTACT: conformable abrupt			40			

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PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No. BT2

PROJECT:

Vertical Scale 1 : 150

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DESCRIPTION					GRAPHIC			
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES
36.50	43.00	CHERT blue grey, fine grained, massive. cherty alteration of fine grained sediment, finely laminated in part.. CONTACT: conformable abrupt	intensely silicified. massive blue cherty alteration associated with sulphides.	STRINGER abundant sphalerite as stringers abundant galena as stringers. zone of mineralized cherty alteration. gun metal, red-brown and straw coloured sphalerite present infilling fine fractures in cherty alteration, coalescing into semi-massive pyrite sphalerite galena chalcopyrite patches.				
43.00	44.50	MASSIVE SULPHIDE dark grey. Massive gun metal grey sphalerite with semi-massive patchy pyrite/chalcopyrite in part.. CONTACT: faulted	massive sulphides			m/s		FAULT
44.50	50.40	RHYOLITE buff grey, feldspar phyric. massive to fragmented felsic volcanic, chlorite altered and mineralized in part, and Mn carbonate altered in part.. CONTACT: faulted	slightly sericitised, slightly carbonatised. minor manganoan carbonate alteration. Note weathering pits of carbonate altered? feldspars.	MASSIVE 20% sphalerite massive 5% galena associated with alteration. zone of massive fine grained gunmetal grey sulphides predominantly sphalerite, and minor semi-massive pale brown sphalerite. Minor 1mm brown sphalerite porphyroblasts, and minor semi-massive fine grained pyrite/chalcopyrite patches.				FRACTURE A20
50.40	73.80	RHYOLITE buff, massive, quartz phyric feldspar phyric. Distinct quartz/feldspar phyric lava massive to flow banded towards downhole contact.. CONTACT: faultedto LCA	slightly sericitised, slightly carbonatised	VEIN very minor sphalerite in veinlets very minor galena in veinlets. Minor sulphides infilling fractures, free growth in part.	50			FAULT A60 pug
					60			PRIMARY FABRIC A70
								FAULT A15

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PASMINCO EXPLORATION

DIAMOND DRILL HOLE LOG

Hole No. BT2

PROJECT:

Vertical Scale 1 : 150

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DESCRIPTION					GRAPHIC			
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES
50.40	73.80	RHYOLITE buff, massive, quartz phyric feldspar phyric. Distinct quartz/feldspar phyric lava massive to flow banded towards downhole contact.. CONTACT: faultedto LCA	slightly sericitised, slightly carbonatised					FAULT A1S
					70			PRIMARY FABRIC A40
73.80	77.20	RHYOLITE MIXED WITH RHYOLITE buff. Transition zone between distinct quartz/feldspar phyric flowbanded rhyolite and massive fine grained and perlitic fractured rhyolite? lava.. CONTACT: conformable mixed		STRINGER trace sphalerite as stringers, trace irregular sphalerite gash filling.				
77.20	92.40	ANDESITE buff, fine grained, massive perlitic. Massive perlitic lava, distinct colour, unusual rock (possibly altered andesite?).. CONTACT: pp			80			BROKEN CORE
								FAULT A65 pug

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PROJECT:

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DESCRIPTION					GRAPHIC			
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES
77.20	92.40	ANDESITE buff, fine grained, massive perlitic. Massive perlitic lava, distinct colour, unusual rock (possibly altered andesite?).. CONTACT: pp	slightly sericitised, slightly carbonatised	DISSEMINATED very minor sulphide disseminated. pyrite/sphalerite appears to be replacing feldspars or nucleating olin 1mm clots in perlitic fractures?	90		FAULT breccia	
92.40	106.40	ANDESITE green grey, peperitic, feldspar phyric. Distinctly peperitic with fine grained grey shale comprising approximately 40% of rock. Lava is sericitised in part and obviously feldspar phyric, but is also perlitic fractured and similar to uphole interval (without obvious feldspars) in part.. CONTACT: conformable abrupt	slightly sericitised. minor waxey green sericite alteration of fragmented lava. with carbonate altered feldspars.	DISSEMINATED abundant pyrite disseminated. in specific quartz rich sandstone band.	100		FIRST CLEAVAGE A45 FAULT A15 pug FAULT A70 pug	
				VEIN trace sphalerite in veinlets. a single 10mm brown sphalerite grain partially leached with free growth quartz in open space.				

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DESCRIPTION					GRAPHIC			
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES
92.40	106.40	ANDESITE green grey, peperitic, feldspar phyric. Distinctly peperitic with fine grained grey shale comprising approximately 40% of rock. Lava is sericitised in part and obviously feldspar phyric, but is also perlitic fractured and similar to uphole interval (without obvious feldspars) in part.. CONTACT: conformable abrupt	slightly sericitised. minor waxey green sericite alteration of fragmented lava, with carbonate altered feldspars.					
106.40	107.90							
107.90	119.60	SANDSTONE grey green, fine grained, massive, polymict. Distinctly massive rock but (indistinctly) granular and polymict.. CONTACT: conformable abruptto LCA	slightly chloritised. slightly carbonatised. chlorite altered mafic fragments. with carbonate altered matrix (finer fragmented mafic).		110			
		BASIC LAVA dark green, perlitic hyaloclastitic. Distinctly textured volcanic: mafic in composition, basaltic or andesitic, with prominent perlitic texture with mixed peperite/hyaloclastite, pseudo-clastic and possibly pillowed texture.. CONTACT: conformable mixed						
		SANDSTONE buff grey, fine grained						
119.60	120.40	BASIC LAVA dark green, perlitic hyaloclastitic. Distinctly textured volcanic: mafic in composition, basaltic or andesitic, with prominent perlitic texture with mixed peperite/hyaloclastite, pseudo-clastic and possibly pillowed texture.			120			FIRST CLEAVAGE A50
120.40	125.00	BRECCIA, poorly sorted, polymict. Mass flow comprising andesite, pumice breccia, and fine grained sediment, and sericite and carbonate/pyrite altered clasts.. CONTACT: pp						
		ANDESITE pale green, fine grained, vesicles. Distinct vesicular fuchsitic andesite. Peperitic towards uphole contact, and fractured towards downhole contact with fine pyrite/chlorite infilling.. CONTACT: faultedto LCA	highly carbonatised, slightly fuchsitic. straw coloured manganoan carbonate altered mafic with minor fuchsite.					
125.00	125.90							

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DESCRIPTION					GRAPHIC			
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES
125.90	131.80	ANDESITE pale green, fine grained, vesicles. Distinct vesicular fuchsitic andesite. Peperitic towards uphole contact, and fractured towards downhole contact with fine pyrite/chlorite infilling.. CONTACT: faultedto LCA	highly carbonatised, slightly fuchsitic, straw coloured manganoan carbonate altered mafic with minor fuchsite.	VEIN abundant pyrite in veinlets, fine grained pyrite in fractured andesite.	130			BROKEN CORE
131.80	139.80	RHYOLITE pale pink, perlitic, pumiceous feldspar phyric quartz phyric. Indistince pumice texture in part, and perlite in part. Quartz phyric but not typical Pinnacles Rhyolite?. CONTACT: faultedto LCA						
139.80	163.00	RHYOLITE pink buff, porphyritic flow banded, quartz phyric feldspar phyric. *Typical Pinnacles Rhyolite:* prominantly quartz feldspar phyric and massive to flowbanded in part.			140			FRACTURE

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DESCRIPTION					GRAPHIC			
FROM	TO	LITHOLOGY	ALTERATION	MINERALISATION	Depth	Lith	Struct	STRUCTURES
139.80	163.00	RHYOLITE pink buff, porphyritic flow banded, quartz phyric feldspar phyric. Typical Pinnacles Rhyolite: prominantly quartz feldspar phyric and massive to flowbanded in part.			150 160			

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