HOLE No. BHD 4

PASMINCO EXPLORATION
DIAMOND DRILL CORE RECORD

LOCATION	TASMANIA
PROJECT	BULGOBAC HILL EL
PROSPECT	SOCK CREEK
DESIGNED BY	J.G. PURVIS
LOGGED BY	J.G. PURVIS
RELOGGED	
COMMENCED	2ND MARCH 1993
COMPLETED	28TH APRIL 1993
DRILLED BY	W. HOW
DRILL RIG	LONGYEAR 38

OBJECTIVE

TO TEST FOR A MASSIVE SULPHIDE DEPOSIT BESIDE THE SOCK CREEK FAULT BENEATH THE KNOWN SHALLOW ZONE OF Pb-Zn VEINING.

RESULT

NO SIGNIFICANT MINERALIZATION INTERSECTED.

ABOVE 236m HOLE INTERSECTED A MIXTURE OF QUARTZ-FELDSPAR PORPHYRY, PORPHYRY DETRITUS AND SHALE; FROM 236 – 490m GLASSY BRECCIATED RHYODACITIC LAVAS, AND FINISHED IN ANIMAL CREEK GREYWACKE. PROBABLE SOCK CREEK FAULT INTERSECTED 513 – 523m.

LOCATION/SURVEY DATA (AMG)

Grid	AMG		RL Collar m	569.2
Northing m	5392584.3		Bearing Collar	115°
Easting m	386044.7		Dip Collar	– 63°
DH Survey Type	EASTMAN SINGLE SHOT CAMERA		Length Hole m	616.8

SIGNIFICANT INTERSECTIONS

From m	To m	Interval m	Pb	Zn	Ag			Comments
7.7	10.7	3.0	1433	2706	2			BLACK PYRITIC SHALE, sp-gn veinlets
221	223	2.0	159	4554	<1			BLACK SHALE, 2-3% py, 1% sp-gn

SIGNIFICANT CORE LOSS

From m	To m	% Lost

POOR GROUND CONDITION ZONES

From m	To m	Condition
0	27.4	BADLY BROKEN WITH CLAYEY ZONES
69.3	70.7	BADLY BROKEN IN FAULT ZONE
155.5	163	BROKEN, DUE TO FAULT 160.4 – 160.7m.

HOLE SIZE

Size	Depth m
HQ	60
NQ	616.8

HOLE CONDITIONS AFTER COMPLETION

Collar	6.5m STEEL CASING CEMENTED AT COLLAR WITH STEEL SCREW-ON CAP
Steel Casing	AS ABOVE
PVC Casing	PLACED TO BOTTOM, 40mm, UNSLOTTED
Ground Water	–
Wedge	–
Drill Pad	

Depth m	Bearing	Dip	Depth m	Bearing	Dip
31	115°	– 63°			
61	116.25°	– 63°			
91	117°	– 62.5°			
121	118°	– 62.25°			
151	118.75°	– 62.5°			
181	119°	– 63°			
211	119.5°	– 62°			
241	126°	– 61.75°			
271	126.5°	– 62°			
301	127.25°	– 62°			
331	127.5°	– 62°			
361	128.5°	– 62°			
391	128.5°	– 62.25°			
421	129.25°	– 62°			
451	129.5°	– 62°			
481	130°	– 62°			
511	130°	– 61.5°			
541	130°	– 61°			
571	131°	– 61°			
601	130.5°	– 60°			

HOLE No. BHD 4

PASMINCO EXPLORATION
SUMMARY DIAMOND DRILL CORE LOG

PROJECT: SOCK CREEK, BULGOBAC HILL EL

Graphic Scale 1:

From m	Interval m	Code	Description	Depth	Graphic	From m	Interval m	Code	Description	Depth	Graphic

TABLE 1: SUMMARY LOG OF HOLE BHD4, SOCK CREEK

AMG Coords: 5392584.3N / 386044.7E, 569.2mRL. Dip: -63°. Azimuth: 115° AMG.

0 - 27.4m: **PYRITIC BLACK SHALE**
Common sp-gn veinlets.
(Best intersection: 3m @ 0.14% Pb & 0.27% Zn, @ 7.7-10.7m).

27.4 - 60.5m: **VARIABLE CRYSTAL-LITHIC EPICLASTICS**
Derived from qtz-feld porphyry. Uphole-fining. Minor py.

60.5 - 104m: **QUARTZ-FELDSPAR PORPHYRY BRECCIA**
Quench-brecciation of hot porphyry. V coarse gr. Trace py.

104 - 151.9m: **QUARTZ-FELDSPAR PORPHYRY**
Strong silica-albite alteration. No sulphides.

151.9 - 179.7m: **MIXED MARGINAL PORPHYRY ZONE AND PYRITIC BLACK SHALE**
Mixed porphyry, porphyry detritus & shale.Minor sp-gn veins.

179.7 - 213.4m: **QUARTZ-FELDSPAR PORPHYRY**
Strong silicification. Trace pyrite.

213.4 - 236.4m: **BLACK SHALE AND VOLCANOMICT EPICLASTIC BRECCIA**
1-3% py, cp & sp-gn veinlets, mainly in shale.
(Best intersection: 2m @ 0.46% Zn, 221-223m).

236.4 - 382.1m: **FINELY BRECCIATED NON-PORPHYRITIC RHYODACITE LAVA**
Quench-brecciated highly vitric lava with quartz amygdales.
Strong silica-albite-chlorite alteration. Trace pyrite.

382.1 - 489.5m: **FELDSPAR-PORPHYRITIC DACITE LAVA**
Green, silica-chlorite altered. Quartz amygdales. Trace py.

489.5 - 616.8m: **FINE QUARTZ-MICA SANDSTONE AND BLACK SHALE**
Sandstone non-volcanic. Shale graphitic & pyritic.
Major faulted zone (Sock Creek Fault?) 513 - 523m.

END OF HOLE

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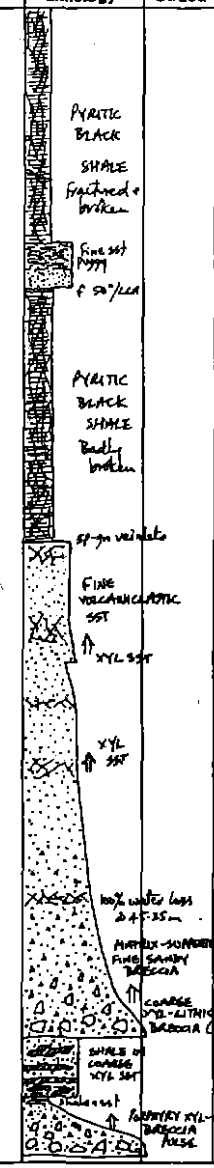
PASMINCO EXPLORATION
DIAMOND DRILL CORE LOG

HOLE No. BHD4

PROJECT: SOCK CREEK

Graphic Scale 1: 250

CORE RECOVERY				DESCRIPTION					CODES			
From m	Interval m	%	RQD	From m	Interval m	(Incl. LITHOLOGY, STRUCTURE & ALTERATION)	Depth	Graphic Lithology / Struct.	MINERALISATION	LITHO	STRUCT	ALTN	MIN



LOG OF HOLE BHD4

(Note: *all rocks in hole lack cleavage*).

0 - 27.4m: PYRITIC BLACK SHALE

Lithology: Badly broken, with clayey zones. Much core loss.
Black shale: finely bedded; carbonaceous; pyritic.
Fine volcaniclastic sst @ 12 -14.3m: pale yellowish-green; qtzo-feldspathic; with sericitic matrix composed of tiny pumice frags.
Alteration: Partially oxidised. Weak limonite stains to 6m.
Sst @ 12-14.3m is mod sericitised & bleached.
Structure: Bedding (to LCA): 25° @ 8m; 50° @ 18.4m; 45° @ 26.3m.
Zones of abund microfracturing, esp above 12m; fracts at all angles, overall zones at low angle to LCA.
Faults at top & bottom of sst @ 12-13.4m &14.3-14.5m (latter 50°/LCA) .
Basal contact clayey & broken - probable structure.

Sampling: 034247-034258 (assay, 0-27.4m).

27.4 - 52.85m: GRADED CRYSTAL-LITHIC EPICLASTICS

Lithology: Uphole-fining epiclastic detritus largely ex qtz-feld porph. Pale grey; massive; hard.
Fine volcaniclastic sst at top, grading to med-coarse gr xyl-lithic sst below 33m, & to xyl-lithic breccia below 50m.
Upper sst: even-grained (av <1mm); qtzo-feldspathic; sericitic matrix with abund tiny pumice shards; occ lithic grains (incl black shale).
Xyl-lithic sst: feld>qtz xyls & xyl frags, av 1-3mm; minor fi gr lithic grains 1-3mm; silif matrix gen lacking visible pumice.
Below 42m angular lithic clasts inc in size & number to matrix-supported breccia below 50m, with clasts av 10-50mm (to150mm).
Clasts: hard, coarse gr, silica-alb alt qtz-feld porph; soft, irreg & equant, sericitic/chloritic qtz-feld porphyritic "stylolitic" types (some wispy-banded); also black shale (semi-lith), fi gr silica-alb alt volcs, & carb.
Alteration: Mod silicification & weak albite-sericite-chlorite.
Carb veins assoc with local weak carbonatisation.
Structure: Indistinct bedding in sst (to LCA): 50° @ 31.6m (orientated core: 208°M/13°); 48° @ 40m.

MINERALISATION

0 - 12m:
3% ultra fi gr py, dissem & on fracts.
Common tiny veinlets of turquoise green mineral >leached qtz, & gn-sp.

12 - 14.3m:
Minor dissem py.
14.3 - 27.4m:
3% ultra fi gr dissem py, occ bedded. Varies from minor to 5-10%.
Much less veining than above 12m - only trace green mineral & sp-gn (latter most common in carb veinlets adjacent to basal contact).

27.4 - 52.85m:
V minor dissem py>sp-gn.

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5 cm

PASMINCO EXPLORATION
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PROJECT: SOCK CREEK

Graphic Scale 1: 250

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CORE RECOVERY				DESCRIPTION						CODES			
From m	Interval m	%	RQD	From m	Interval m	(Incl. LITHOLOGY, STRUCTURE & ALTERATION)	Depth	Graphic Lithology / Struct.	MINERALISATION	LITHO	STRUCT	ALTN	MN

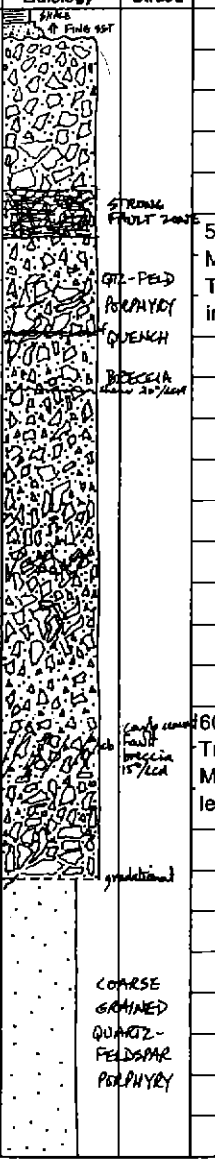
Basal contact abrupt & irreg.

52.85 - 60.5m: MIXED & DISTURBED ZONE OF SHALE & PORPHYRY-DERIVED EPICLASTICS

Lithology: Grey, dark grey, & pink.
To 56.5m: disturbed (soft-sed) dk grey shale bands intermixed with coarse qtz-feld xyl sst;
56.5 - 59m: uphole-fining xyl-lithic breccia pulse;
Below 59m: shale & fine qtzo-feldspathic volcaniclastic sst.
Xyl sst: qtz to 6mm, feld to 3mm, packed in sericitic fine pumice matrix.
Breccia: abund angular & irreg clasts (to 150mm) of hard silica-alb alt coarse gr qtz-feld porphyry; & soft, irreg, sericitic/chloritic qtz-feld porphyritic "stylolitic" frags (to 50mm); in matrix of qtz-feld xyls & abund fine pumice.
Alteration: Overall: weak. Felds albitised. Pumice sericitised.
Breccia matrix mod silicified (porph clasts v strongly silica-albite alt).
Structure: Bedding 58°/LCA @ 59m. Broken above 56.5m.
Basal contact abrupt, 35-40°/LCA: sl irreg 1° surface on unit below.

60.5 - 104m: QUARTZ-FELDSPAR PORPHYRY BRECCIA

Lithology: Formed by quench-brecciation of hot porphyry.
Blotchy orange-red & greenish-grey. Massive; v coarse-gr; hard.
Angular frags & diffuse irreg patches of qtz-feld porph in compositionally-identical matrix that has snowflake devitrification texture & net-vein habit in places.
Frags typically <50mm, some zones av <10mm.
Both matrix & frags contain abund feld (1-4mm, gen euhedral), & qtz (av 3-5mm, **commonly 5-12mm**, partly rounded & fractured).
Alteration: Gen porph frags mod-strongly silica-albite(-hematite) alt. Some smaller soft frags of sericite-chlorite alt porph ("stylolitic" type).
Breccia matrix gen strongly silif. Minor calcite veining.
Structure: No primary or structural lineation.
Badly broken around strong brittle faults @ 69.3-70.7m (30°/LCA), & 75.8m (35°/LCA). Elsewhere, sl broken at intervals by fracts sub-// LCA.
Basal contact gradational.



52.85 - 60.5m:
Minor dissem py.
Trace sp-gn, mainly in carb veinlets.

60.5 - 104m:
Trace py.
Minor ubiquitous leucoxenised opaques.

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5 cm

PASMINCO EXPLORATION
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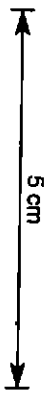
PROJECT: SOCK CREEK

Graphic Scale 1: 250

CORE RECOVERY				DESCRIPTION						CODES			
From m	Interval m	%	RQD	From m	Interval m	(Incl. LITHOLOGY, STRUCTURE & ALTERATION)	Depth	Graphic Lithology / Struct.	MINERALISATION	LITHO	STRUCT	ALTN	MIN
						104 - 135.0m: QUARTZ-FELDSPAR PORPHYRY	118	COARSE GRAINED QUARTZ-FELDSPAR PORPHYRY	104 - 135m: No sulphides. Trace leucoxenised opaques.				
						Lithology: Grey with pink tinge. Coarse gr; massive; uniform; v hard. Porphyritic xyls of feld (euhedral, av 2-4mm), & qtz (2-6mm, gen sl rounded by alt/corrosion), in fi gr silica-albite-sericite groundmass.	123						
						Alteration: Strong silica>albite; weak sericite>chlorite (ser strongest in basal 5m). Calcite veinlets & patchy weak pervasive carbonatisation.	128						
						Structure: Some flow-banding in upper 2m, variable but gen ≈60°/LCA. Largely unbroken - occ fracts. Small brittle fault 40°/LCA @ 123.6m. Basal contact abrupt: mixing of shaley material & quenched porphyry over 150mm, with flow banding // contact @ 55°/LCA.	133						
						Sampling: 034259 (lithogeochem, 115-116m).	138						
						135.0 - 138.2m: MIXED BLACK SHALE & QUARTZ-FELDSPAR PORPHYRY DETRITUS	143		135m - 136m: 1% cp-sp-gn as clots in calcite veinlets. Minor dissem py.				
						Lithology: Black & pinkish-grey. Upper 1m baked black carbonaceous shale. Variably-textured coarse sandy material derived from qtz-feld porphyry. Clots of deformed (unlith) black shale & rare porph clasts to 15mm. Some tiny sericitic (glassy) frags appear formed by quench brecciation. Qtz xyls fractured & often rounded, to 10mm. Pink albitised felds gen euhedral & 2-3mm (rarely to 7mm). Rock matrix mainly soft green soapy sericite after glassy material, commonly with fine dispersed carbonaceous matter.	148						
						Alteration: Weak sericite-silica-albite-carbonate. Patchy silif of matrix. Veinlets & net-vein fracture-fillings of calcite (±sericite). **Structure:** Bedding variable 15-30°/LCA. Sl fract & broken. Basal contact indistinct.	153		136 - 138.2m: Minor dissem py.				
						Sampling: 034260 (assay, 135-136m).	158						
						138.2 - 151.9m: QUARTZ-FELDSPAR PORPHYRY	163						
						Lithology: Pink & greenish-grey. Coarse gr, massive, hard. Abund porphyritic qtz & feld in subord sericitic groundmass. Qtz av 3-4mm, to 7mm, commonly rounded. Feld av 1-3mm, to 6mm, gen	168						
							173						
							177						



PASMINCO EXPLORATION
DIAMOND DRILL CORE LOG

HOLE No. BHD4

PROJECT: Sock CREEK

Graphic Scale 1:

CORE RECOVERY				DESCRIPTION							CODES			
From m	Interval m	%	RQD	From m	Interval m	(Incl. LITHOLOGY, STRUCTURE & ALTERATION)	Depth	Graphic Lithology	Struct.	MINERALISATION	LITHO	STRUCT	ALTN	MIN
						euhedral. **Alteration:** Moderate silica-albite, weaker sericite-chlorite. Alt is variable & patchy. Some zones strongly silif. **Structure:** Slightly broken by fract set 15-30°/LCA. Shear 55°/LCA @ 143.65m. Flow banding @ 140.8m: 25°/LCA (opp sense to fracts). At base, highly irreg & disturbed zone where porphyry contacts unlith black shale, with some fine peperite breccia in base of porph.				138.2 - 151.9m: Rare dissem & veinlet py.				
						151.9 - 179.75m: MIXED MARGINAL PORPHYRY ZONE & SHALE **Lithology:** Complexly intermixed black carbonaceous shale, qtz-feldspar porphyry, & porphyry detritus incl fine peperite breccias. Black & pale greyish-green. Variable grainsize, texture & hardness. Predom shale above 163m. Shale disturbed & deformed while unlith - gen occurs as irreg bands, clots or frags in porph material. Porph & porph detritus varies from coarsely-porphyritic to sparsely & finely porphyritic. Feld (gen <3mm) & qtz (gen <4mm & rounded), in sericitic (glassy) matrix/groundmass with perlitic cracks & snowflake devit text in places. Porph detritus ranges from epiclastic to peperitic types, incl fine to coarse xyl sst & fine lithic breccias (alt porph frags av 5-40mm). **Alteration:** Alt patchy & variable. Mod sericitisation, strongest below 170m esp around faults where occ veins of soft soapy sericite. Lesser silica-albite-chlorite-bleaching. Shale baked in places (eg: 1.4m shale band at top contact of unit). **Structure:** Flow lineation in shale @ 152.4m: 40°/LCA. Shale clots and felds in sst gen orientated <30°/LCA, commonly <20°/LCA. Broken 155.5-163m & 172.5-179m, due to strong faults (see below), & also to fract set <15°/LCA. Faults: 160.4 -160.7m (20°/LCA, leached breccia zone); 162.6m (15°/LCA puggy); 175.1m (80°/LCA, puggy & sericitic); 177.9m (leached, broken). Basal contact abrupt, v irreg, broken. **Sampling:** 034261 (assay, 151.9-153.3m). **179.75 - 213.4m: QUARTZ-FELDSPAR PORPHYRY** **Lithology:** Greenish-grey; med-coarse gr; massive; uniform; hard.				151.9 - 153.3m: 1-2% sp>gn-py. Dissem & veinlets in baked shale. 153.3 - 160.6m: Minor to 1% py> sp-gn. Dissem & veinlets, mainly in shale clots/bands. 160.6 - 163m: 1% sp-gn-py in shale band. In veinlets (±qtz-carb), & dissem. 163 - 179.75m: Minor dissem py, locally 1% in shale clots. Ubiquitous fine leucoxenised oxide grains.				

99506 2

5cm

PASMINCO EXPLORATION
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HOLE No. BHD4

PROJECT: SOCK CREEK

Graphic Scale 1:

CORE RECOVERY				DESCRIPTION							CODES			
From m	Interval m	%	RQD	From m	Interval m	(incl. LITHOLOGY, STRUCTURE & ALTERATION)	Depth	Graphic Lithology	Struct.	MINERALISATION	LITHO	STRUCT	ALTN	MIN
						Abund felds & qtz xyls evenly scattered through fi gr silica-sericite groundmass. Feld av 2-3mm, to 5mm, euhedral. Qtz av 3-4mm, to 7mm, often rounded. At 212m, sharp contact 30°/LCA to basal peperitic zone comprising porphyry mixed with porph-derived qtz-feld xyl sst containing fine carbonaceous material. **Alteration:** Mod-strong silif, weak-mod sericite. Felds gen weakly albitised or sericitised. Minor bleaching, gen assoc with fracts. Thin qtz-carb veins throughout. **Structure:** Mod broken at intervals, by fracts gen at low angle to LCA. Basal contact sharp, sl irreg (shale below unlith), 50°/LCA.				179.75 - 213.4m: Trace dissem py. Minor leucoxenised oxide grains.				
						Sampling: 034262 (lithogeochem, 199-200m).								
						213.4 - 226.05m: BLACK SHALE **Lithology:** Finely-bedded black carbonaceous shale, mod calcareous below approx 220m. V minor beds of fine grey sst & siltst. From 224.3m-225.4m, band of med gr sericitic qtz-feld xyl sst (porph-derived) containing highly irreg clots of (unlith) black shale. **Alteration:** Net-veinlets of qtz-carb±sericite-chlorite, v common above 222m. **Structure:** Bedding (to LCA): 63° @ 214m, 66° @ 219m, 64° @ 223m. Largely unbroken except in faulted zone @ 214.4m (45°/LCA). Basal contact sharp 65°/LCA (bedding). Basal 50mm of shale sl sheared.				213.4 - 218.8m: 1-3% fi gr dissem py. Common (1%?) cp(±py) in qtz-carb veinlets. At 215.85m: 10mm massive cp vein 70°/LCA approx same sense bedding. 218.8 - 223m: 2-3% fi gr dissem py. 1% sp>gn in calcite veinlets (no cp). 223 - 226.05m: 3% fi gr dissem py.				
						Sampling: 034263-034268 (assay, 213.6-226m).								
						226.05 - 236.4m: FINE CRYSTAL-LITHIC EPICLASTIC BRECCIA **Lithology:** Up-hole fining epiclastic debris. Grey with orange-pink flecks. Hard. Unbroken. Mainly xyl-lithic volcanomict breccia, with abund angular to subangular clasts av 5-15mm, in sandy matrix containing feld, qtz & lithic grains. In basal 0.6m clasts to 150mm. Clasts predom fi gr glassy silica-alb alt rhyodacite lava with perlitic cracks. Others incl feld-porphyritic dacite lava, black shale, bleached & alt poss mafic volcs, amygdaloidal lavas, and minor tubular pumice. Above 229.3m unit fines abruptly to bedded fine qtzo-feldspathic sst. **Alteration:** Mod silif. Weak albite-sericite-chlorite. Calcite				226.05 - 236.4m: 1% dissem py, trace sp-gn or cp in carb veinlets. 10mm massive py clast @ 231.5m.				

99506 3

5cm

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Graphic Scale 1:

CORE RECOVERY				DESCRIPTION							CODES			
From m	Interval m	%	RQD	From m	Interval m	(Incl. LITHOLOGY, STRUCTURE & ALTERATION)	Depth	Graphic Lithology	Struct.	MINERALISATION	LITHO	STRUCT	ALTN	MIN
						veinlets. Many frags strongly silica-alb alt, apparently prior to incorp in unit. Small fuchsitic clast @ 232m. **Structure:** Bedding (to LCA): 55°/LCA @ 227.5m; 60°/LCA @ 231m. Basal contact abrupt, broken. **236.4 - 382.15m: FINELY BRECCIATED RHYODACITE LAVA** **Lithology:** Dark grey-green with pink tinge. Massive. Hard. Unbroken. Fi gr. Non-porphyritic. Highly vitric. Perlitic. Qtz-amygdaloidal. Brecciated lava / lava breccias of flow & hyaloclastite types, largely formed by subaqueous quenching of compositionally-identical hot glassy lava pulses. Top 3m is fine hyaloclastite breccia similar in appearance to overlying epiclastics & reflecting gradational nature of upper lava contact. Trace black shale in breccia matrix to 242.5m. Ubiquitous perlitic cracking. Local flow-banding. Amygdales mostly sl chalcedonic qtz; gen <8mm; locally tiny & abund. Some amygdales in breccia matrix. Classic quench-fragmentation features, incl highly angular frags with delicate subconcoidal edges, & net-vein brecciation. Most breccia frags <50mm. Prob interpulse zones marked by abund tiny pumiceous and flow-banded frags (eg: at top of unit and at 285-290m). Abund tiny (<<1mm) leucocratic flecks throughout - prob devit text. **Alteration:** Gen strong silif - varies from intense to weak (breccia matrices gen replaced by silica & occ carb). Mod albite-chlorite alt. Weaker patchy sericite & bleaching. Qtz-carb(±chlor) veins & veinlets throughout. **Structure:** Lineation of frags in some breccias, amygdales, or flowage in lava, all gen v approx around 40°/LCA. Lineation of breccia frags (/LCA): 35° @ 271.8m (oriented core: 205°M/20°); 40° @ 287m; 20° @ 331m; Amygdale lineation (/LCA): 55° @ 257m; 25° @ 301.4m (orientated: 097°M/vert); 35° @ 343m; 50° @ 370m. Basal contact sharp, sl irreg, 35-55°/LCA, with minor deformed clots of baked black shale in breccia matrix for 0.75m above contact. **Sampling:** 034269 (petrology, 257m); 034270 (lithogeochem, 257-258m) 034271 (petrology, 339.5m); 034272 (lithogeochem, 339.5-340.5m).				236.4 - 382.15m: Trace dissem & fract-fill py.				

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CORE RECOVERY				DESCRIPTION							CODES			
From m	Interval m	%	RQD	From m	Interval m	(incl. LITHOLOGY, STRUCTURE & ALTERATION)	Depth	Graphic Lithology	Struct.	MINERALISATION	LITHO	STRUCT	ALTN	MIN
						382.15 - 489.55m: AMYGDALOIDAL FELDSPAR-PORPHYRITIC DACITIC LAVA **Lithology:** Khaki-green. Massive. Uniform. V hard. Largely unbroken. Top contact: 200mm of sediments (incl black shale & qtz-feld xyl sst), bedded 35°/LCA on irreg upper surface of lava below. Minor clots of black shale incorp into upper 1m of lava. Porph felds av 2mm (& poss minor small qtz phenos?), in fi gr vitric felsic groundmass with devit text in places. Gen amygdaloidal - amygs av <3mm, often v fine & abund. Amygdales most commonly qtz, also calcite & (rarely) chlorite. Commonly flow banded. Some fine brecciation in uppermost 10m. **Alteration:** Mod-strong silif (common silica overgrowths on feldspars). Weak-mod chloritised (pervasive & in veinlets). Patchy weak sericite (esp assoc with faults & in basal 10m). Patchy weak bleaching. Silica-albite alt in uppermost 15m. Qtz-calcite(±chlorite) veinlets & veins throughout. **Structure:** Flow banding (/LCA): 55° @ 397m; 60° @ 412m; 50° @ 428m, 466m & 484m; 45° @ 448m; Sericitic faults: 395.7m (55°/LCA); 399.45 - 400.4m (strong fault, with shearing 10-15°/LCA & 55°/LCA in opp sense); 451.5 - 452m (20°/LCA). Weak fract set throughout, 10-20°/LCA. Calcite-cemented fault breccia 463.65 - 464.3m (20°/LCA). Basal contact knife-sharp, unbroken, unsheared, 40°/LCA (same sense as bedding in black shale below). Irreg lenses of feld-rich volc material occur in top 300mm of shale. **Sampling:** 034273 (lithogeochem, 439.3-440.3m); 034274 (petrology, 430.3m); 034275 (lithogeochem, 475-476m); 034276 (petrology, 476.1m).				382.15 - 384.5m: 2% dissem py, minor sp. 384.5 - 489.55m: Trace dissem & fract-filling py.				
						489.55 - 616.8m: QUARTZOSE SANDSTONE & BLACK SHALE **Lithology:** Grey to black. Predom massive, fine & even-grained qtzose sst, containing fine graphitic material (inc common below 570m), also grains of feldspar & muscovite. Common interbeds & highly irreg intercalations of disturbed black carbonaceous/graphitic shale, esp above 525m & below 575m (predom shale above 507.5m).				489.55 - 497m: 2-3% fine dissem py, sometimes bedded or in massive nodules to 10mm. Rare sp in qtz-carb veins.				

PASMINCO EXPLORATION
DIAMOND DRILL CORE LOG

HOLE No. BHD4

PROJECT: SOCK CREEK

Graphic Scale 1:

CORE RECOVERY				DESCRIPTION							CODES			
From m	Interval m	%	RQD	From m	Interval m	(Incl. LITHOLOGY, STRUCTURE & ALTERATION)	Depth	Graphic Lithology	Struct.	MINERALISATION	LITHO	STRUCT	ALTN	MIN
						Some intervals of grey silicified siltstone. V minor thin beds of sericitic fine clastic volc material (glassy, qtzo-feldspathic), in uppermost 20m & below 584m. **Alteration:** Abund irreg qtz-calcite veins & veinlets filling fracts at all angles throughout, esp 513-555m. Trace chlorite-sericite in some veins. Rarely vein carb is pale pink. Sst weakly calcareous, with some highly-calcareous zones below 592m. **Structure:** Ubiquitous signs of structural disturbance, incl the abund veining (fracturing), numerous brittle faults, & widespread deformation of bedforms (incl intermixing of sst & shale, & common small-scale fracture offsets of bedding). Up-hole fining in graded sst bed @ 506.4m. Bedding (/LCA): 72° @ 494m (orientated core: 035°M/45°); 74° @ 512m (orientated: 038°M/54°); 75° @ 533m; 60° @ 543.5m (orientated: 094°M/32°); 40° @ 565.5m; 25° @ 572m (orientated: 010°M/89°); 40° @ 593m; 55° @ 602.7m (orientated: 350°M/67°); 47° @ 612m. Mildly broken at intervals throughout. Stronger faults (/LCA): 25-35° @ 513.6 - 516.7m (major, annealed by qtz veining); 30° @ 521.7 - 522.9m (major, annealed by qtz-carb veining); 30° @ 548.7m (cemented by carb); 25-35° @ 570.5 - 570.85m (broken, puggy); 15-25° @ 588m (broken). **Sampling:** 034277-78 (assay, 490-493.5m); 034279 (lithogeochem, 554.3-555.3m); 034280 (petrology, 555m); 034281 (lithogeochem, 598.2- 599.2m); 034282 (petrology, 598.8m); 034283 (assay, 535.5-537.5m); 034284 (assay, 576.5-577.5m). **END OF HOLE**				497 - 508m: 1-2% py as above. V rare trace sp-gn in qtz-carb veins. 508 - 512m: Minor py. 512 -513m: 2-3% dissem py. 513 - 610m: V minor py. Mainly in shale sections. Pale brown sp dissem in carb-cemented fault breccia @ 548.7m. Rare cp in qtz-carb veinlets below 575m. 610 - 616.8m: 1% py, dissem & veinlets.				