

MINFILE Detail Report BC Geological Survey Ministry of Energy, Mines and Petroleum Resources

Location/Identification								
MINFILE Number:	092JNE075 National Mineral Inventory Number: 092J15 Au18			092J15 Au18				
Name(s):	<u>MINTO MINE (L.5601)</u>							
ALPHA FR, OMEGA, GOLDEN QUEEN, JACK FR, HILLSIDE, HAGMO, GOLDEN GIRL, PRINCE, PONDEROSA, RAINBOW, WINTER								
Status:	Past Producer		Mining Div	vision:	Lillooet			
Mining Method	Underground		Electoral I	District:	Yale-Lillooet			
Regions:	British Columbia		Resource l	District:	Cascades Forest District			
BCGS Map:	092J087							
NTS Map:	092J15E, 092J15W		UTM Zon	e: 10 (NA	AD 83)			
Latitude:	50 53 55 N		Northing:	56385	80			
Longitude:	122 45 05 W		Easting:	51748	3			
Elevation:	6/0 metres							
Location Accuracy:	Main adit (Assessmen	t Report 14740).						
Comments.		······································						
Mineral Occurrence								
Commodities:	Gold, Silver, Copper, Lead	, Zinc						
Minerals	Significant: Arsenopyrite, Pyrite, Galena, Chalcopyrite, Sphalerite, Stibnite, Pyrrhotite, Tetrahedrite, Jamesonite, Bismuth, Gold							
	Significant Comments: Rare tetrahedrite, gold, bisn		uth, and jamesonite.					
	Associated:	Associated: Quartz, Calcite, Ankerite						
	Alteration: Calcite, Ankerite, Sericite, I		Mariposite, Chlorite					
	Iteration Type: Carbonate, Chloritic, Sericitic		ic					
	Mineralization Age:	Unknown						
Denesit	Character:	Vein						
Deposit	Classification:	Hvdrothermal, Epigenetic						
	Туре:	I09: Stibnite veins and disse	eminations					
	Shape:	Regular Mo	odifier: Faulted					
		Sti	rike/Dip: 360/75E					
	Comments:	Dips vary from 75 degrees to	o 80 degrees east.					
		Но	st Rock					
Dominant Host Roo	ck: Sedimentary							
Stratigraphic Age Paleozoic-Mesozoi	c Group	Formation Undefined F	ormation	Igneous/Met	tamorphic/Other			
Upper Cretaceous				Unnamed/Ur	nknown Informal			
Isotopic Age		Dating Method	Materia	l Dated				
69.4 +/-2.4 Ma		Potassium/Argon	sium/Argon Whole rock					
Lithology: Ch Di	erty Quartzite, Argillite, Greenstone, Chert, Feldspar Porphyry Dike, Quartz Vein, Andesite Porphyry Dike, Felsite ke							
Comments: Da mi	nments: Date on "Minto dyke" from Geology in B.C., 1975; recalculated by Leitch et al. (Econ. Geol., 1989). Dyke is a microdiorite porphyry.							
Geological Setting								

Tectonic Belt:

Physiographic Area:

Pacific Ranges

Inventory Ore Zame: Variable Section 1986 Year: Year: <th colspa<="" th=""><th>Terrane:</th><th>Bridge River</th><th></th><th></th><th></th></th>	<th>Terrane:</th> <th>Bridge River</th> <th></th> <th></th> <th></th>	Terrane:	Bridge River						
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Lead 56,435 kilograms 124,418 pounds Copper 9,673 kilograms 21,325 pounds		Gold	546,106 grams	17,558 ounces					
Copper 9,673 kilograms 21,325 pounds Capsule Geology		Lead	56,435 kilograms	124,418 pounds					
Capsule Geology		Copper	9,673 kilograms	21,325 pounds					
			Capsule Geology						

The Minto polymetallic veins are on the north side of Carpenter Lake, 1.7 kilometres northeast of the mouth of Gun Creek.

The property is underlain by northwest trending argillites, cherty quartzites, ribbon cherts and volcanics of the Mississippian to Jurassic Bridge River complex. Upper Cretaceous dykes of feld- spar porphyry, andesite porphyry, felsite and microdiorite cut north to northwest across the sediments, dipping steeply. Mineralization occurs in shear zones following the intrusive contact of porphyry dykes or the stratigraphic contact between sediments and volcanics. The strata, dykes and veins are offset by late strike-slip faults. The principal ore shoot occurs in cherty quartzites in a strong shear which follows, in part, along the footwall of a 6-metre wide, altered, fine-grained feldspar porphyry dyke (the "Minto dyke"). Veins up to 1.2 metres wide contain lenses and narrow bands of quartz, calcite and ankerite with coarsely crystalline arsenopyrite, pyrite, sphalerite, stibnite, pyrrhotite, galena, chalcopyrite and rare tetrahedrite, jamesonite, bismuth and gold.

Vein material generally has a banded structure defined by alternating metallic mineral concentrations and quartz-carbonate gangue. The vein also contains fragments of altered wallrock. Wallrock alteration is characterized by rare to abundant ankerite and calcite with lesser chlorite, sericite and mariposite.

The fissure, or zone of shearing, continues away from the dyke, but mineralization becomes irregular and weaker. Immediately west of the sediments, the fissure enters greenstone which is leached, carbonatized and slightly mineralized. Northeast and east of the main Minto orebody, within 500 metres, are other zones of mineralization: the Ponderosa zone is a wide area of mineralized cherts carrying small arsenopyrite-pyrite veins and lenses; the Rainbow zone is a 200 metre long narrow shear with stibnite, arsenopyrite and pyrite veins; and the Winter zone where an old (1934) adit explored galena-sphalerite-stibnite-arsenopyrite-pyrite veins in a narrow 200 metres long shear. The best recent assay, obtained from the Rainbow zone, graded 7.78 grams gold per tonne over 1.0 metre and 3.5 grams silver per tonne over 1.5 metres (Assessment Report 14740). The Minto mine was in operation from 1934 to 1940 during which time over 2130 metres of underground work was done, and a total of 80,650 tonnes of ore grading 6.8 grams gold and 19.9 grams silver per tonne was produced. The mine yielded 546 kilograms gold, 1,573 kilograms silver, 9,673 kilograms copper and 56,435 kilograms lead.

Bibliography

Date Coded:	1985/07/24	Coded By:	3C Geological Survey (BCGS)	Field Check:	Ν		
600446, 840518, 840521, 675633, 675750							
EMPR PFD 902961, 11497, 11498, 11499, 11500, 11501, 750237, 908333, 908439, 885438, 885439, 600173, 600177, 600176, 600178, 600174,							
Columbia							
Sebert, C.F.B. (1987): Description of 22 Mineral Properties, Bridge River Mining Camp, Unpublished B.Sc. Thesis, University of British							
WWW http://www.info	omine.com/index/propert	ies/MINTO.html					
NAGMIN March 1, 19	85						
GCNL #25(Feb.5), 198	35						
ECON GEOL 1989, 84	, pp. 2226-2236						
CJES 1987, Vol. 24, pp. 2279-2291							
CANMET IR #748, pp	. 61-71 (1934); #771, 19	35; #776, 1936; #785, 1	937				
GSC P 43-15, 73-17							
GSC OF 482							
GSC MAP 430A							
August 1, 1991; Plan map of drillholes and geology of North zone, 1988; Undeground and surface plan maps of Minto mine)							
EMPR PF (Report by I	D.E. Pearson 1974; Map,	underground sampling	, 1934; Statement of Material Facts, Avino M	ines and Resources,			
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Field Check: