

Location/Identification

MINFILE Number:	082KSE044	National Mineral Inventory Number:	082K8 Ag2
Name(s):	EXCELDA EXCALIBUR (L.14920), DEVELOPMENT NO.01 (L.14918), DEVELOPMENT NO.02 (L.14919), DEVELOPMENT FR. (L.14921)		
Status:	Prospect	Mining Division:	Golden
Regions:	British Columbia	Electoral District:	Columbia River-Revelstoke
BCGS Map:	082K049	Forest District:	Rocky Mountain Forest District
NTS Map:	082K08W	UTM Zone:	11 (NAD 83)
Latitude:	50 26 49 N	Northing:	5588510
Longitude:	116 22 44 W	Easting:	544099
Elevation:	2591 metres		
Location Accuracy:	Within 500M		
Comments:	Centre of Lot 14918 (Development No.01).		

Mineral Occurrence

Commodities:	Silver, Gold, Lead, Zinc, Copper		
Minerals	Significant:	Galena, Sphalerite, Tetrahedrite, Pyrite	
	Associated:	Quartz	
	Alteration:	Malachite	
	Alteration Type:	Oxidation	
	Mineralization Age:	Unknown	
Deposit	Character:	Vein, Shear	
	Classification:	Replacement, Hydrothermal	
	Type:	105: Polymetallic veins Ag-Pb-Zn+/-Au	

Host Rock

Dominant Host Rock:	Sedimentary		
Stratigraphic Age	Group	Formation	Igneous/Metamorphic/Other
Middle Proterozoic	Purcell	Mount Nelson	-----
Isotopic Age	Dating Method	Material Dated	
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Lithology:	Dolomitic Limestone, Argillite, Quartzite		

Geological Setting

Tectonic Belt:	Omineca	Physiographic Area:	Purcell Mountains
Terrane:	Ancestral North America		

Metamorphic Type: Regional
Grade: Greenschist

Inventory

No inventory data

Capsule Geology

The Excelda occurrence is located 1 kilometre southwest of Sultana Peak in the Golden Mining Division at 2591 metres elevation above sea level. The property consists of four Reverted Crown grants, Lot 14918 (Development No.01), Lot 14919 (Development No.02), Lot 14920 (Excalibur) and Lot 14921 (Development Fraction).

Regionally, the area is underlain by Proterozoic clastic sedimentary rocks of the Purcell and Windermere supergroups and by lower Paleozoic strata of the Beaverfoot and Mount Forster formations (Geoscience Map 1995-1).

The Purcell Supergroup strata include the Aldridge, Creston, Kitchener, Dutch Creek and Mount Nelson formations. The Windermere Supergroup unconformably overlies the Purcell Supergroup rocks and includes the Toby Formation and Horsethief Creek Group (Paper 1990-1).

In the vicinity of the occurrence, rocks of the Kitchener and Dutch Creek formations have been further subdivided and assigned to the Van Creek and Gateway formations. The Van Creek Formation correlates with the Lower Kitchener Formation while the Gateway Formation is equivalent to the lower portion of the Dutch Creek Formation. The Mount Nelson Formation has been subdivided into seven discrete members, a lower quartzite, a lower dolomite, a middle dolomite, a purple dolomite, an upper middle dolomite, an upper quartzite, and an upper dolomite (Open File 1990-26).

Rocks of the Horsethief Creek Group, Beaverfoot and Mount Forster formations are folded and overthrust by rocks of the upper portion of the Dutch Creek Formation and the lower members of the Mount Nelson Formation. The sedimentary rocks have undergone regional metamorphism to at least greenschist facies.

Rocks in the vicinity of the prospect include dolomitic limestone, quartzite and argillite of the lower dolomite member of the Mount Nelson Formation. The strata, which strike southeast and dip northeast, are cut by several reverse faults. Mineralization consisting of galena, sphalerite, tetrahedrite and pyrite occurs in limestone associated with a tightly-spaced fracture system filled with quartz. Malachite is common on the surface exposures. The occurrence has been explored by a series of adits and trenches. Most veins are less than a centimetre wide but can be high grade. A chip sample across a 5 centimetre massive sulphide vein assayed 100 grams per tonne gold, 2571 grams per tonne silver, 22.7 per cent lead, 1.9 per cent zinc and 1 per cent copper (Minister of Mines Annual Report 1935).

Bibliography

EMPR AR *1935-E12,G53; 1936-E51; 1937-E52; 1946-173; 1947-176
EMPR FIELDWORK 1989, pp. 29-37
EMPR GEOS MAP 1995-1
EMPR OF 1990-26
EMPR PF (82KSE General File - Geology map by P. Billingsley, 1958)
GSC MAP 1326A
GSC MEM 148; 369
Pope, A.J. (1989): The Tectonics and Mineralization of the Toby-Horsethief Creek Area, Purcell Mountains, Southeast British Columbia, Canada, unpublished Ph.D. Thesis, University of London, England

Date Coded:	1985/07/24	Coded By:	BC Geological Survey (BCGS)	Field Check:	N
Date Revised:	2007/09/18	Revised By:	Mandy N. Desautels(MND)	Field Check:	N