

### Location/Identification

<b>MINFILE Number:</b>	093H 023	<b>National Mineral Inventory Number:</b>	093H4 WO1
<b>Name(s):</b>	<u><b>HARDSCRABBLE</b></u> HARDSCRABBLE SCHEELITE, HARDSCRABBLE MINE, COLUMBIA TUNGSTEN		
<b>Status:</b>	Past Producer	<b>Mining Division:</b>	Cariboo
<b>Mining Method</b>	Underground	<b>Electoral District:</b>	Cariboo North
<b>Regions:</b>	British Columbia	<b>Resource District:</b>	Quesnel Forest District
<b>BCGS Map:</b>	093H012		
<b>NTS Map:</b>	093H04E	<b>UTM Zone:</b>	10 (NAD 83)
<b>Latitude:</b>	53 08 12 N	<b>Northing:</b>	5888321
<b>Longitude:</b>	121 39 11 W	<b>Easting:</b>	590106
<b>Elevation:</b>	1219 metres		
<b>Location Accuracy:</b>	Within 500M		

### Mineral Occurrence

<b>Commodities:</b>	Tungsten, Gold, Lead, Zinc		
<b>Minerals</b>	<b>Significant:</b>	Scheelite, Gold, Galena, Sphalerite, Pyrite	
	<b>Associated:</b>	Quartz, Ankerite, Calcite	
	<b>Mineralization Age:</b>	Unknown	
<b>Deposit</b>	<b>Character:</b>	Vein	
	<b>Classification:</b>	Hydrothermal, Epigenetic	
	<b>Type:</b>	I01: Au-quartz veins, I02: Intrusion-related Au pyrrhotite veins	
	<b>Shape:</b>	Irregular	<b>Modifier:</b> Faulted

### Host Rock

<b>Dominant Host Rock:</b>	Metasedimentary		
<b>Stratigraphic Age</b>	<b>Group</b>	<b>Formation</b>	<b>Igneous/Metamorphic/Other</b>
Proterozoic-Paleoz.	Snowshoe	Undefined Formation	-----
<b>Isotopic Age</b>	<b>Dating Method</b>	<b>Material Dated</b>	
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<b>Lithology:</b>	Quartzite, Phyllite, Limestone		
<b>Comments:</b>	The Snowshoe Group is (?)Hadrynian to Paleozoic in age.		

### Geological Setting

<b>Tectonic Belt:</b>	Omineca	<b>Physiographic Area:</b>	Quesnel Highland
<b>Terrane:</b>	Barkerville		
<b>Metamorphic Type:</b>	Regional	<b>Relationship:</b>	Syn-mineralization
<b>Grade:</b>	Greenschist		

### Inventory

No inventory data

## Summary Production

		Metric	Imperial
Mined:		1,071 tonnes	1,180 tons
Milled:		1,071 tonnes	1,180 tons
Recovery	Tungsten	9,963 kilograms	21,965 pounds

## Capsule Geology

The Hardscrabble deposit lies within the Barkerville Terrane of the Omineca Belt. The Barkerville Terrane is in thrust contact with Triassic Quesnellia Terrane rocks to the west and Hadrynian to Lower Paleozoic Cariboo Terrane rocks to the east. The Barkerville Terrane in this region is underlain by the dominantly metasedimentary rocks of the Hadrynian to Lower Paleozoic Snowshoe Group. In this area the Snowshoe Group comprises limestone, phyllite and quartzite. These rocks have been regionally metamorphosed to greenschist facies.

The occurrence is found in a sequence of Snowshoe Group rocks consisting of fissile quartzite, relatively massive quartzite, calcareous phyllite, relatively pure phyllite and sandy limestone. Mineralization occurs in quartz-sulphide and quartz-carbonate scheelite veins and veinlets which are associated with faults and joints or which follow the schistosity of the enclosing rocks. The three types of mineralized veins are a gold-bearing lenticular quartz vein, two quartz-sulphide veins which apparently do not carry gold and scheelite bearing quartz veinlets or stringers. Sulphide veins are composed of quartz, pyrite, sphalerite and galena. Scheelite-bearing veinlets occur both crosscutting and following the bedding and schistosity of the enclosing rocks. These veins contain quartz, ankerite, calcite, scheelite and traces of sphalerite and galena. In general the mineralized veins are discontinuous and widely spaced.

A total of 9963 kilograms of tungsten was produced from this dposit in 1939 and 1941. In 1937, about 90 tonnes of ore was produced for testing puposes.

## Bibliography

EM OF 1999-3

EMPR AR 1904-49; 1906-44; 1916-39,40; 1917-131; \*1918-135,136;

1922-117; 1927-171; 1928-195; 1935-C40; 1936-C38; 1937-C34;

1938-C49; 1939-101; 1940-86; 1941-81; 1945-82

EMPR ASS RPT 7989, 10936, 10937, 11299

EMPR BC METAL (Fiche records - Columbia Tungsten Co. Mines Ltd.)

EMPR BULL \*10, pp. 58-67; \*10-Revised, pp. 82-90

EMPR EXPL 1980-330,331

EMPR OF 1991-17, 1999-3

EMPR PF (Report on the Hardscrabble Scheelite Deposit, 1918; Geology of workings on Hardscrabble Creek, 1939; Hardscrabble Mine section and level plans, Columbia Tungstens Co. Ltd., 1939; Sutherland Brown, A., Holland, S.S., (1956) The Structure of the Northeast Cariboo District, in 93H General Property File)

GSC EC GEOL 17, pp. 62-67

GSC MAP 1424A

GSC MEM 149, pp. 210,211

GSC SUM RPT 1932A, pp. 55,56

EMPR PFD 14905, 14906, 14907, 14908, 14909, 14910, 600050, 681607, 3

**Date Coded:** 1985/07/24

**Coded By:** BC Geological Survey (BCGS)

**Field Check:** N

**Date Revised:** 2007/09/26

**Revised By:** Mandy N. Desautels (MND)

**Field Check:** N