



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

Location/Identification

MINFILE Number: 082ESW017 **National Mineral Inventory Number:** 082E5 Mn1

Name(s): DIEF
DIEF 1-12, OLALLA, OLALLA MANGANESE, IRON KING, PETE, JERRY, DONNY GROUP, OL

Status: Developed Prospect **Mining Division:** Osoyoos

Mining Method: Underground **Electoral District:** Boundary-Similkameen

Regions: British Columbia **Resource District:** Okanagan Shuswap Natural Resource Distr

BCGS Map: 082E021

NTS Map: 082E05W **UTM Zone:** 11 (NAD 83)

Latitude: 49 16 38 N **Northing:** 5462277

Longitude: 119 53 05 W **Easting:** 290183

Elevation: 1500 metres

Location Accuracy: Within 100M

Comments: The location of a collapsed adit (Assessment Report 36914), also the location of sample 17DR-11.

Mineral Occurrence

Commodities: Manganese, Rhodonite, Gemstones

Minerals

Significant: Rhodochrosite, Braunite, Manganite

Associated: Jasper

Alteration: Hematite, Pyrolusite

Alteration Comments: Secondary manganese oxides also occur in fractures.

Alteration Type: Oxidation

Mineralization Age: Unknown

Deposit

Character: Stratabound, Massive

Classification: Sedimentary, Industrial Min.

Type: F01: Sedimentary Mn, Q02: Rhodonite

Dimension: 152x12x0 metres **Strike/Dip:** 320/47N

Comments: A 12-metre wide mineralized zone occurs near the top of a 31-metre wide jasper unit. A conglomerate bed within the jasper unit, hosting manganese mineralization, strikes 320 degrees and dips 47 degrees.

Host Rock

Dominant Host Rock: Metasedimentary

Stratigraphic Age	Group	Formation	Igneous/Metamorphic/Other
Paleozoic-Mesozoic	Undefined Group	Shoemaker	-----
Paleozoic-Mesozoic	Undefined Group	Old Tom	-----
Middle Jurassic	-----	-----	Unnamed/Unknown Informal

Isotopic Age	Dating Method	Material Dated
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Lithology: Conglomerate, Jasper, Chert, Tuff, Pyroclastic, Quartzite, Argillite

Comments: The Shoemaker Formation is of Carboniferous to Triassic age. Olalla alkalic complex.

Geological Setting

Tectonic Belt: Intermontane **Physiographic Area:** Thompson Plateau

Terrane: Quesnel

Metamorphic Type: Regional Relationship: Pre-mineralization
 Grade: Greenschist

Inventory

Ore Zone: ADIT Year: 2018
 Category: Assay/analysis Report On: N
 NI 43-101: N

Sample Type: Chip

Commodity	Grade
Manganese	43.7 per cent

Comments: Sample 17DR-11, rock chip sample across a 300 cm outcrop. The sample was taken at the location of a collapsed adit.

Reference: Assessment Report 36914.

Summary Production

	Metric	Imperial
Mined:	36 tonnes	39 tons
Milled:	0 tonnes	0 tons
Recovery	Manganese 14,515 kilograms	32,000 pounds

Capsule Geology

The Dief occurrence is located at 1500 metres elevation on a western tributary of Olalla Creek, 3.5 kilometres west-northwest of Olalla, British Columbia.

Old trenches and claim posts were observed by Cockfield in 1942, indicating previous exploration activity on the property. In the spring of 1942, D.J. McRae restaked the occurrences as the Pete and Jerry claims. In late 1942, Olalla Manganese Mining Company acquired the property. The ground was restaked again in 1949 as the Iron King and 2 claims by S.J. Fairclough. The old trenches were cleaned out. The occurrence was restaked again in 1950 by T. McQuillan, as the Donny Group. The Olalla 1 to 8 claims were staked over the occurrence by W.W. Gemwinder in 1955. Olalla Mines Ltd. was then incorporated to develop the property. A 60-metre adit was driven and bulk samples were shipped for test purposes. Cominco Ltd. held the property between 1961 and 1962 as the Dief 1 and 2 claims. Property work included geological mapping and 150 metres of diamond drilling in 5 holes. Lacana Mining Corporation held the occurrence in 1986 as the OL 2 and 3 claims and a geochemical soil survey was conducted.

The Dief occurrence is underlain by the Carboniferous to Triassic Shoemaker Formation, northwest of the ultramafic to alkaline Middle Jurassic Olalla intrusion. This intrusion has intruded a sequence of oceanic sediments and volcanics of the Carboniferous to Triassic Shoemaker and Old Tom formations. Black to green chert, light grey quartzite and minor limestone lenses comprise the dominant lithologies. The Shoemaker and Old Tom formations form a broadly folded, east-dipping sequence in the area. The Olalla intrusion consists of a magnetite-bearing pyroxenite peripheral zone to a diorite and syenite core. The pyroxenite is composed primarily of augite with lesser magnetite. Coarse-grained syenite dikes occur at the contact with the peripheral pyroxenite zone.

In the vicinity of the Dief occurrence, jasper and thin to massive bedded cherts. Massive acidic to intermediate pyroclastics of the Old Tom Formation, striking north and dipping shallowly to the west, outcrop 300 metres to the west. Thin bedded cherts, argillite and quartzite with fracturing and minor folding occur 457 metres to the east. Folds plunge 10 to 30 degrees towards 015 degrees.

Mineralization is hosted in a 12-metre wide conglomerate bed within a top (east) side of a massive jasper unit. Pebbles within the conglomerate are up to 4 centimetres diameter and are replaced by chert. The bed strikes 320 degrees and dips 47 degrees northeast. The jasper bed is approximately 31 metres wide and occurs near the top of a massive light grey chert unit. To the east, the jasper bed terminates abruptly against a fault. Thin bedded, dark green tuffs and cherts containing numerous shears, faults and folds occur to the east of the fault. The western edge of the jasper unit is not well defined, but appears to consist of sporadic jasper development within massive chert.

The upper 3 to 12 metres of the jasper unit contains lenses and layers of braunite and/or composite layers of braunite, rhodochrosite up to several tens of centimetres thick. Numerous beds of hematite, 1 to 5 centimetres thick, also occur in jasper. Secondary manganese oxide commonly occurs on fracture surfaces of tuffs and cherts away from the occurrence. Primary manganese mineralization appears to be associated with massive jasper.

The hangingwall of the jasper bed has been explored for over 152 metres along strike on the claims but extends well beyond the claims to the northwest. Primary manganese mineralization is not found southeast of a small adit on the Dief No. 2 claim.

Bulk samples shipped in 1956 for testing totalled 36 tonnes from which 14,515 kilograms of manganese were recovered (National Mineral Inventory 082E5 Mn1).

In 2017, Andris Kikauka conducted geochemical and geophysical work on the property. Eighteen rock chip samples were taken, as well as 34 soil samples at 50 metre intervals. Rock chip sample 17DR-11, also the location of a collapsed adit which was once the site of bulk sample mining, returned 43.7 per cent Mn across a 300-centimetre sample interval. A ground magnetometer (1.5-kilometre line-grid) geophysical survey was also conducted in the central portion of the Dief claims (Assessment report 36914).

Bibliography

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GSC MAP 341A; 538A; 539A; 541A; 628A; 15-1961; 1736A; 2389
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GSC OF 481; 637; 1505A; 1565; 1969
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Date Coded:	1985/07/24	Coded By:	BC Geological Survey (BCGS)	Field Check:	N
Date Revised:	2024/03/11	Revised By:	Kerri Shaw (KLS)	Field Check:	N