Location/Identification

MINFILE Number: 082FSW169
National Mineral Inventory Number: 082F6 Ag5
Name(s): **CALIFORNIA (L.1677)**
DEADWOOD (L.2232), UNION (L.8324), CABIN, EXCHEQUER (L.391), CREEK, HILLSIDE (L.2238), CLIFF FR. (L.15029), CLEOPATRA (L.387), CAL 3-6, CAL 8

Status: Past Producer
Mining Division: Nelson
Mining Method Underground
Electoral District: Nelson-Creston
Regions: British Columbia
Resource District: Selkirk Natural Resource District
BCGS Map: 082F044
NTS Map: 082F06W
UTM Zone: 11 (NAD 83)
Latitude: 49 27 13 N
Northing: 5477926
Longitude: 117 17 47 W
Easting: 478519
Elevation: 1611 metres
Location Accuracy: Within 500M
Comments: Centre of Lot 1677 (NTS Map 082F06).

Mineral Occurrence

Commodities: Gold, Silver, Lead, Zinc, Copper

Minerals
Significant: Pyrite, Gold, Galena, Sphalerite, Chalcopyrite
Significant Comments: Only minor amounts of base metal sulphides. Possibly tetrahedrite.
Associated: Quartz
Alteration: Carbonate, Pyrite
Alteration Type: Carbonate, Pyrite
Mineralization Age: Unknown

Deposit
Character: Vein, Disseminated, Massive, Shear
Classification: Hydrothermal, Epigenetic
Type: I05: Polymetallic veins Ag-Pb-Zn+/-Au, I01: Au-quartz veins
Shape: Irregular
Modifier: Faulted, Sheared
Dimension: 30x1x0 metres
Strike/Dip: 090/47S
Comments: The shear zone is 30 metres wide and hosts a vein up to 1 metre wide.

Host Rock

Dominant Host Rock: Volcanic

Stratigraphic Age	Group	Formation	Igneous/Metamorphic/Other
Lower Jurassic	Rossland	Elise	------
Jurassic	------	------	Nelson Intrusions
Jurassic	------	------	Silver King Porphyry

Isotopic Age	Dating Method	Material Dated
------	------	------
------	------	-
------	------	-

Lithology: Augite Basalt, Tuff, Altered Volcanic Rock, Granodiorite, Quartz Monzonite, Flow Breccia, Plagioclase Porphyry
Comments: Unit Je1 of the Elise Formation (Open File 1989-11).

Geological Setting

Tectonic Belt: Omineca
Physiographic Area: Selkirk Mountains

Terrane: Quesnel

Metamorphic Type: Regional **Relationship:** Pre-mineralization

Grade: Greenschist

Inventory

Ore Zone: VEIN **Year:** 1987

Category: Assay/analysis **Report On:** N

NI 43-101: N

Sample Type: Channel

Commodity	Grade
Gold	73.0500 grams per tonne

Comments: Sample (CAFS-2) of California veins from No. 2 level.

Reference: Property File - Christina Explorations Ltd., Prospectus, May 12, 1988.

Ore Zone: CALIFORNIA **Year:** 1982

Category: Inferred **Report On:** Y

Quantity: 36,000 tonnes **NI 43-101:** N

Commodity	Grade
Gold	29.1400 grams per tonne

Comments: At the west end of the No. 3 level. A potential tonnage of an ore block 91 metres long over 1 metre width.

Reference: Assessment Report 11027.

Summary Production

		Metric		Imperial	
Mined:		1,454	tonnes	1,602	tons
Milled:		0	tonnes	0	tons
Recovery	Silver	122,607	grams	3,942	ounces
	Gold	70,231	grams	2,258	ounces
	Zinc	19,478	kilograms	42,942	pounds
	Lead	8,085	kilograms	17,824	pounds

Capsule Geology

The California deposit is located 4 kilometres south of Nelson. The vein has been developed on 3 levels by 650 metres of drifts, producing 1,462 tonnes from 1910 to 1949.

The area is underlain by schistose volcanics comprising augite basalt flows and flow breccias of the Lower Jurassic Elise Formation, Rossland Group. These have been intruded by plagioclase porphyry of the Jurassic Silver King Intrusions and granodiorite and quartz monzonite of the Middle to Late Jurassic Nelson Intrusions.

The California occurrence comprises the California vein, the Deadwood vein, the Union vein, the Creek showing, the Cabin vein and the Exchequer vein.

The California vein is hosted in andesite near the ganodiorite contact in a shear zone which strikes east and dips 45 to 50 degrees south. The shear zone is up to 30 metres wide and hosts two parallel quartz veins with graphitic andesite between them. The vein on the hanging wall, 0.5 to 1.0 metre wide, contains the best sulphide mineralization and the footwall vein, rarely more than 0.3 metre wide, hosts higher gold values. The veins touch or can be separated by up to 2 metres of altered rock. Mineralization consists of quartz gangue containing significant pyrite with some galena, sphalerite, and free gold. The quartz veins are strongly sheared with graphitic material on fracture and shear planes. The contacts with the country rocks are

heavily slickensided. Some enrichment of metal values was observed where normal faults crosscut the vein-shear zone. Faulting, with movement of up to 1.2 metres, has been observed in the workings. A channel sample taken (CAFS-2) from level No. 2, in 1987, across parallel well mineralized quartz veins, 5 to 15 centimetres wide, and hosting sphalerite, chalcopyrite and possibly tetrahedrite in narrow bands and as patches or disseminated grains assayed 73.05 grams per tonne gold (Property File - Christina Explorations Ltd., Prospectus, May 12, 1988). An ore block, 91 metres long grading 29.14 grams per tonne gold over a 1 metre width, is believed to exist at the west end of the No. 3 level. A potential tonnage of 36,000 tonnes has been calculated for this zone (Assessment Report 11027).

The parallel Deadwood vein, which outcrops to the southeast of the California vein, comprises a zone of numerous quartz stringers and veinlets hosted in a shear zone. The zone is approximately 75 metres wide in pyritized and carbonate altered tuffaceous volcanics. Reports indicate significant but erratic gold values were present.

The Union vein, several hundred metres north of California vein, is hosted in granodiorite. The vein dips at 15 degrees toward the volcanic contact and appears to be a tension feature. The vein, 0.3 to 0.8 metre wide, consists of white quartz hosting sparsely disseminated pyrite and sphalerite, similar to the California vein. Samples from the stope area have assayed up to 13 grams per tonne gold and 222.82 grams per tonne silver over a 0.3 metre width (Property File - Christina Explorations Ltd., Prospectus, May 12, 1988). Samples taken in 1987 assayed between 0.41 to 4.5 grams per tonne gold with minor silver values (Property File - Christina Explorations Ltd., Prospectus, May 12, 1988).

The Cabin vein, Exchequer vein and Creek showing occur roughly along strike of the California vein. Sampling of the Cabin vein, 300 metres east of the California vein, assayed 8.98 to 26.43 grams per tonne gold across 1 metre (Property File - Christina Explorations Ltd., Prospectus, May 12, 1988). Sampling of the Exchequer vein, 50 metres west of workings, assayed up to 53.58 grams per tonne gold 1988). The Creek showing, 400 metres east of the California vein, assayed 2.88 grams per tonne gold and 375.02 grams per tonne silver across 1.3 metres (Assessment Report 11027).

Bibliography

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Date Coded:	1985/07/24	**Coded By:**	BC Geological Survey (BCGS)	**Field Check:**	N
Date Revised:	2020/07/07	**Revised By:**	Nicole Barlow (NB)	**Field Check:**	N