

182

822960

182 BEAR : Au, Ag

: Argente Porphyry l. Quance Rossland Fm, intruded  
 by Granite porphy dykes (l. Cret. Nelson Plant.)  
 : a mineralized vein of crushed wall rock & quartz  
 runs along zone of contact; pyrite free Au with  
 minor silver values

1937-42	Tonnes Mined	Milled	Au g	Ag g	- O Cu, Pb, Zn, Mo
Total	114	0	4167	49807 1897	

184 CANADIAN BELLE : Au, Zn, Pb, Cu, Ag

24793

: argillaceous sed (Quance Hall Fm)  
 intruded S of workings by mass of  
 granite rock (Nelson Batholith)  
 which have tongue sed

: many places sed altered & rendered schistose  
 => difficult to distinguish

: along shears & fract, q & sulfide - arseno spp  
 py, po & cp <sup>as</sup> filling & replace wall rock

1939, 40	Tonnes Mined	Milled	Gold g	Ag g	Cu kg	O-Pb, Zn, Mo
	24	0	840	280	23	

- 183 FERN : Au, Ag  
 L 374  
 FERN MINE
- : Fern vein : = q with some py rarely cp in  
 Augite Andrite (Rossland Fm)
  - : vein in part cut by altered Nelson porphyry dy  
 ore shoots in dy
  - : ore mined contained appreciable proportion oxidized  
 material
  - : other workings of mine are in ~~semi~~ similar formations  
 but carry greater sulfide mineralization
  - : a fracture is marked by caliche-healed br ±  
 fragments of chloritized Andrite & silicified Porphyry
  - : q veins carry arsenopy ± subsidiary py, po  
 & cp

1896-1942	TONNES MINED	MILLED	Au g	Ag g	O-Cu, Pb Zn Mo
	11,277	8619	196,448	16515	

ASS: 2598, 3719, 5721, 6139, 3303, 3304, ~~4128~~

- 186 EUPHRATES: Au, Ag, Pb, Zn, W
- : Au accompanies galena sph, cp, py & resto of scheelite all in a q gangue
  - : ~~some~~ some Au in wall rocks
  - : deposit is one or more poorly defined shear zones with stringers & bunches of q; ~~W. side~~
  - : limestone-filled veins in Rossland Fm argite porphyry & Andrite; parallel schistosity dip both // & cutting
  - : see #185 GOLDEN AGE

1928-60 10 years	Tonnes Mined	Milled	Au g	Ag g	Pb kg	Zn
	307	10	14,401	76,543	8,246	5,287

O - Cu, Mo

Geologic & structural maps of the area, showing the location of the Euphrates vein system.

- ASS: 2598
- : CLAIMS A#1 to 8
  - : Euphrates ore zone ~~indicated~~ extends at least 2000 ft NW down the mountain; 3 new ore zones found - ~~at NW~~ NW
  - : Rossland Volcan: location N40°W / dip SW
  - : light coloured dyke of mainly plagi. max 14 ft wide hosts Nickel Plate vein
  - : mineralization lensy 3 inches to ~~over~~ 9 feet
  - : soil survey laid out N50°E to cover <sup>new</sup> structures (major) of air photos; 147 samples
  - : Total heavy metals 100 to 200 ppm to samples; rest nil
  - : 2 major structures on property N40°W, 2 mile trace on either side of Salvo River = main Euphrates veins
  - : ~~at Rossland~~ ~~zone~~ ~~strike~~ N
  - : one new ore zone ~1300 ft long<sup>3</sup>, NE strike

3719: A 1 to 8, P14 1 to 5

- : soil: 50 ft interval; heavy metals, silver & copper
- : highest Ag 4.0 ppm Cu highest 350 ppm Hg highest 3565 ppm  
24 samples  $\bar{c}$  +400 ppm Hg

5721: very detailed; maps underground.

- : Galena strong affinity to sph.; Pyrite intimate  $\bar{c}$  Arseno.
- : Native Au, largest 1 mm long plate, in fract. // to vein walls
- : Native Ag in small veins; arseno.  $\bar{c}$  galena
- : q py + arseno, galena - sph, cp, Au, Ag  
about  $\leftarrow$   $\rightarrow$  ~~spread~~

188 HARRIET : Au, Ag

: fine greenstone (Rosslund) ; two veins vary  
from a crack to 25 cm, white g with a little  
chlorite, occasionally py  
: moderately coarse fine Au may occur in  
milk g = little rest

1936-41	Tonnes. MINED	MILLED	Au g	Ag g	O - Cu, Pb, Zn, Mo
	144	0	10,265	1772	

ASS : 6139 TRAM 1-8 mac

EL TREE PORTAL in shear zone ave. 1m wide  
steep dip; strike 108 to 180° normally 130°

SAMPLES 250 SE of PORTAL

	Width	As g/t	Ag 9/16
30 m from portal:	From		
Composite?	5cm or ~30 cm	0.094	0.17
?	<del>0.325</del>	0.325	4.06
		0.085	2.08
		0.033	3.01
		0.096	6.62
		0.031	18.30

DUMP 0.205 As g/t Ag (03/16) 16.50

EL TREE 0.355 ~~0.355~~ 3.55

MILL BIN

(189) 7702

189 PORTO RICO : Au, Ag, Cu, W, Pb, Zn  
 L2385  
 PUEERTO RICO : q-filled fissure NE, ~~dip 45° NW~~ strike  
 dip 45° NW, in argite feld p.  
 : country rock of argite porphyry & sill of  
 argite feld. porphyry  
 : vein ave. 2 ft wide, with py, Au (~1 oz) ton  
 in stoped area).  
 - adits on L2385

= L2215 B  
 Barbara  
 Alpha  
 sunshine  
 ad

1897-1969	TONNES MINED	MILLED	Au g	Ag s	Cu kg
12 years 1 year with mill clean-up	5,740	5,528	177,568	43,575	322

138 kg Pb & 51 kg Zn in cleanup; 0 Mo

7702: map; propylitic alteration outside claims

MAR : 1897 41 tons shipped \$76.25 per ton  
 1922 vein N50°E / 42°NW; all trace of vein lost  
 on surface; sample at showing of <sup>partly</sup> oxidized  
 iron sulfide in q gangue 0.02 g Au, 0.3 g Ag

(20) Porto Rico *CSC MEM 191*

References: Drysdale, C. W.; Geol. Surv., Canada, Mem. 94, Ymir Mining Camp, pp. 128-137 (1917). Ann. Rept., Minister of Mines, B.C., 1922, p. 207.

This property comprises a group of five claims, owned by E. Wragge of Nelson. It lies at the head of Barrett creek about 7 miles by road from Porto Rico siding on the Great Northern railway.

The property has been described fully by Drysdale and as almost no work has been done on it since, and as some of the workings have caved, less information is now available than at that time. Only a brief description will, in consequence, be given here and the reader is referred to Drysdale's report for more complete details.

The property was worked in 1898-99 by the Canadian Pacific Exploration Company and yielded \$56,511 or about \$17.21 a ton of ore milled. It was worked under lease by G. H. Barnhardt in 1903 and yielded about \$16,000, representing a value of \$17 to \$18 a ton. The last work recorded was in 1915 when about \$1,000 worth of ore was recovered by Smith Curtis. Recently, the property has been worked by lessees, but the writer has no record of shipments.

The vein on this property is a quartz-filled fissure striking north 50 degrees east and dipping 42 to 45 degrees to the northwest. Associated rocks comprise augite porphyry and a sill of augite-feldspar porphyry and the productive part of the vein is in the latter. The vein averages 2 feet in width and is mineralized, chiefly, by pyrite with values mainly in gold. Free gold has been reported but was not seen by the writer.

The vein is developed by four adits and a number of open-cuts, extending in all about half a mile from the apex of the vein on the summit down the hill towards Barrett creek. A lower adit, known as No. 6, has also been driven but is reported to be off the vein. It had caved at the entrance and could not be examined. Of the other adits, No. 3 is the only one now readily accessible. No. 4 is caved at the portal and the vein has been stoped from No. 3 to the surface. The stope has been left open and prevented an examination of the remainder of the higher levels. No. 3 adit developed an ore shoot 450 feet long that has been stoped above the level. The hanging-wall of the vein in this section is a

fine-grained, cherty, augite kersantite dyke about a foot wide. The vein varied along the level from 1 foot to 3½ feet wide. About 50 feet from the face it is lost in a sheared section of the country rock containing many seams of calcite, but appears to have deviated toward the hanging-wall side. About 330 feet from the portal a winze had been sunk by recent lessees but was full of water. It is reported to be 20 feet deep and to have discovered ore.

No. 4 level is reported to be off the vein but to have been driven parallel with it for 358 feet and to have followed small bunches and stringers of quartz and calcite for 90 feet. The level, it is reported, has not been driven far enough to get beneath the ore shoot stoped from No. 3 level.

The apex of the vein is exposed by open-cuts at the summit of the hill. The most southwesterly cut failed to locate the vein, but farther northeast and along its strike two other cuts expose the vein and there it is 2 and 3 feet wide, respectively. The vein exposed in these cuts was traced down the hill by outcrops and float to a point opposite the entrance to No. 1 level. Here it was found to be offset about 50 feet to the south of the vein exposed above the portal of No. 1 adit. A cross vein in No. 1 adit, just southwest of the stope opening referred to above, is reported to strike towards these outcrops but could not be seen on the surface. As the Porto Rico vein is reported to be lost towards the end of the upper workings, it is possible that the vein shown in the open-cuts is not this vein, but one *en échelon* with it and extending farther northwest. Only low gold values have been obtained from the open-cuts, but further surface prospecting should be done to prove the relations of the vein exposures there to the main vein as developed underground. The matter has a considerable bearing on the future of the property.

Exp 190 SPOTTED HORSE : Au, Ag ; Au, py, galena  
 : = same of filled fissure occurring  
 on Porto Rico ; augite porphyry & augite feld  
 porphyry sell ; productive part in sell  
 : mineralization py & Au ; ave width  
 = 60 cm  
 : see also PORTO RICO # 189

1901, 03, 1937	Tonnes Mined	Milled	Au g	Ag g	O - Cu, Pb, Zn, Mo
Total	47	0	1649	2083	5

(21) Spotted Horse Claim GSC MEM 191

This claim is northeast of the Porto Rico group and is owned by E. Wragge of Nelson. The workings consist of one small open-cut and a short adit.

The country rock is augite porphyrite of the Rossland Volcanic group. The open-cut is a few hundred feet from the road to the Porto Rico camp at the side and near the head of one of the branches of Barrett creek. It exposes a quartz vein composed of two stringers of quartz separated by country rock. The stringers strike north 75 degrees east and dip at 65 and 55 degrees, respectively. At the top of the cut the northwest stringer is about 2 inches wide, but pinches towards the bottom of the cut which has a face about 5 feet high. The southeast stringer is 2 to 3 inches wide and at the bottom of the cut is a foot from the other stringer, whereas at the top of the cut the stringers are 2½ feet apart. The country rock between the two stringers is slightly sheared. No sign of sulphide mineralization was seen.

The adit is in the bed of the same stream, immediately below the road, and is about 150 feet long. The deposit consists of a number of veinlets traversing the rock in a shear zone that has no definite walls. The general direction of the zone is south 70 degrees east and the dip is 55 to 60 degrees to the northeast. A quartz vein occurs at the portal and has this attitude. It is 6 inches wide and pinches out within a short distance in the adit; but, farther in, are a number of stringers running in different directions. Some are of quartz and others, particularly those running across the direction of the shear, are of calcite. The zone appears to be 3 to 4 feet wide, but the only definite wall appears at the face where a well-marked plane, with the attitude given above, forms the foot-wall of the shear zone. No sulphides were seen, but according to Mr. Wragge thin plates of native gold are found in the small stringers. It is reported that 17 tons were shipped from this working and averaged \$21 in gold.

200 CLUBINE - COMSTOCK (BOULDER CITY) : Au, Ag, Zn  
 : Augite Andesite porphyry & Andesite  
 (Rossland) cut by lamprophyre dy  
 originating on large intrusive stock (Nelson  
 Granite)  
 : along dykes hanging wall a vein of 2  
 mainly brecciated, containing various amounts  
 Pb ± minor cp, galena, sph  
 : See also Euphrates

1926-42	Tonnes Mined	Milled	Au g	Ag g	Zn kg	O - Cu, Pb, Mo
	3,616	0	123,293	237,463	818	



LVI SECOND CHANCE : Au, Ag

: argillaceous quartzite & related sed  
middle Jurassic Hall? Fm

: in quartzite vein mineralized in py & galena  
with Au, Ag value

1932-34	TONNES MINED	MILLED	Au g	Ag g	0 Cu, Pb, Zn, Mo		
	10	0	280	155			

202 KEYSTONE : Au, Ag, Pb, Zn, Cu

L 5137

: shear cuts argillaceous Hall fm rocks close  
to contact in Rossland Fm

: shear width varies 8 cm to 1.4 m in ore ~ 2 ft.  
& is partly filled in of carrying py & some  
galena & sph; exact Au content unknown

1901-1942	TONNES MINED	MILLED	Au g	Ag g	Cu kg	Pb kg	Zn kg
19 years 1 year cleanup not included	<del>1870</del>	<del>0</del>	<del>77,277</del>				
	1,669	0	79,840	168,827	54	18,535	18,765

0 Mo.

203 CANADIAN KING : Au, Ag, Pb

L 4196

: strong q vein system in folded argillites  
& cgl (middle & upper Jurassic Hall Fm)

: 2 q veins carry Au value

: indications from surface sampling &

DDH => low grade widespread Au anomaly

: galena & sph present

1900-1912	TONNES MINED	MILLED	Au g	Ag g	Pb	0 Cu, Zn, Mo	
	440	0	37,976	80,526	1,224		

204 GOLD HILL : Au, Ag  
 REST CREEK : Rossland Schisto; mineralization in q veins  
 ± py, arsenopy & cp  
 : in oxidized portions of veins malachite, azurite  
 & occasionally free Au

1932, 34, 42	TAMES MINES	Milled	Au g	Ag g	0 - Cu, Pb, Zn, Mo
	19	0	560	1027	

MAR 1903 : 3 ft q vein, mostly free Au, \$25 free Au, 1% Cu  
 2-3 ~~oz~~ Ag

205 ARLINGTON: Au, Ag, Pb, Zn  
 L3648 : high Au ± galena, py & sph in q vein  
 includes New Arlington following granite sill in massive argillite  
 & argillaceous quartzite (Hull FM)  
 : veins lie in strata forming shallow  
 synclinal roll down the dip ⇒ may have  
 been controlling factor

ERIE - ARLINGTON Mine - DUMP A 1975 Recoverable  
 Reserves 68,040 ~~oz~~ 0.1000 oz/ft cut-off

1900-1970	TAMES MINES	Milled	Au g	Ag g	Pb kg	Pb kg	Zn kg
	69823	15182	1,700,339	4,334,578		520,420	456,920

0 - Cu, Mo

BCDM - q vein on Canadian Queen ± low gold strikes  
 northerly ± near vertical dip

207 SILVER DOLLAR : Zn, Pb, Au, Ag, Cu  
 L12599 : Thin bedded, ~~small~~ shaly schist, argillite  
 & some quartzite (Hall Fm)  
 : sph, galena & py in bedded vein  
 : galena in scattered lenses said to carry  
 1/3 Ag to the unit of Pb

1947-1977	Tonnes	Milled	Au kg	Ag kg	Cu kg	Pb kg	Zn kg
8 years	Mined						
	5,425	0	50,916	1,818,469	170	52,597	60,230

0 - Mo

MMAR 1915: schist, argillite, some quartzite - thin bedded shaly  
 E-W on dipping 45° to formation, dip 75° N  
 2 to 6 ft wide, gangue nearly identical to wall rock  
 but a little more silica & calcite

221 TRIxie : Au, Ag, Silica  
 L3848 : Au in narrow zone; barren dykes forced  
 abandonment of workings; country at Hall Fm  
 : no through going ~~or~~ structures found  
 : drift follows vein for 50 ft. ~~then~~ but ran  
 into barren dyke

(211) ASS 4034, 4035

211 MAMMOTH Mo, Cu, Au, Ag  
: Nelson Batholith contact with Andesite porphyry (Rossland); dyke &/or cells of Diorite or Syenite porphyry as elongated bands through Andesite  
: skarnification very extensive, associated mineralization Py, Po, cp Mo; grades rapidly back into Andesite over 2'-3'  
: structure general NS

ASS 4035: North Mammoth & Grace ~~area~~ M.C.  
: Cu, Mo, Zn, Pb, Ag, Mn, Au  
Mo @ low 1-2 ppm  
Pb ~ 20 ppm  
Zn 70 to 100 ppm maximum  
Ag background 1 ppm max ~ 4  
Au - all 0.02  
} in soil

(229) ASS 7074, 7722, 11670

229 STEWART, ARROW TUNASTEN: Wav  
: scheelite in one or more skarn bands interbedded w argillites & others of Rossland Fm  
: occur N of a wide bay in body of Granite porphyry; mineralization not closely related to granite; best showings 100-400 m N of contact, also some f.g. moly  
: adit  
: see FRESNO # 251, MAY BLOSSOM # 70

MMAR: strong & large zones of contact meta.  
: show up & anomalies in wide variety of rock types

ASS 7074: Cu, Mo, Zn, Pb, Ag, Au  
soils Mo 5-6 ppm, Cu 47 ppm high

11670: 277 line km E-M Arrow  
detailed ~~assess~~ rock analysis, includes whole rock ~ 30 elements

291. YMIR : three small bodies of alkaline intrusives occur

(251) ASS 7074, 7722

251

FRESNO, FRESNO : Mo, Au, Ag  
(Free silver) : see STEWART # 229, MAY BLOSSOM #7

(70) Ass 7074, 7722, 11670

70 MAY BLOSSOM : Au, Ag, Pb ; galena, py, sphalerite  
 L. 5666  
 : fissure vein at contact of monzonite chonolith  
 & augite porphyrite of Eocene or later  
 : streaks of quartz ± py & galena  
 : see also STEWART # 229

(179) Ass - nil listed

179 GOLDEN EAGLE : Au, Pb, Zn, Ag  
 Sun Fract. ; T.S. : q-filled fissure veins in fg non porphyrite  
 Granite (Cretaceous), Nelson Plutonite X  
 : q contains pockets oxidized Fe sulfide ore  
 good Au values reported  
 : adjoining X of YMIR GP. & ROSSLAND Fm

PRODUCTION

	Tonnes MINED	Tonnes MILLED	Au g	Ag g	Pb kg	Zn kg
1925-40 (Golden Eagle)	42	0	823	2768	1742	952
1948-58 (Sun Fract)	62	0	3129	1617	326	130
			3951	4385		
			0 Cu, Mo			

37  
 107 39510  
 7 3129  
 831  
 721  
 1000

180 BALTIC: Au, Ag

PRODUCTION

	Tonnes MINED	MILLED	Au g	Ag g	0 - Cu, Pb, Zn, Mo
1939, 1940	2	0	62	62	

181 GOLD KING : Au, Cu, Ag  
 L. 12411 : Andesite & Augite porphyrites (Lower J Rossland Fm)  
 : in places are severely sheared & others quite massive  
 : quartz veins & shear zones carrying veinlets of  
 quartz & py, cp & free Au.

1931-40	TONNES MINED	MILLED	Au	Ag	Cu kg	O Pb, Zn, Mo
Total	7	0	341	621	51	

(24) Gold King Group GSC mem 191

The Gold King Group of nine claims, owned by J. E. Fisher of Hall and associates, is on both sides of Hall creek and adjoins the property of the Fern mine on the west and north. The road up Hall creek to the Fern mine continues to the Gold King cabin.

The country rock consists of andesites and augite porphyrites of the Rossland Volcanic group. In places these rocks are severely sheared and in others quite massive. The mineral showings consist of quartz veins and shear zones carrying veinlets of quartz, with pyrite the chief ore mineral; in places copper minerals also occur and free gold is reported, by Mr. Fisher, to have been obtained from some of the showings. In general the mineral showings are isolated exposures and insufficient work has been done to trace the continuity of the various deposits. The workings on the main vein, on the Gold King claim, were inaccessible at the time of the writer's visit.

The Gold King vein is exposed in a cut just below the cabin in the south bank of Hall creek. The elevation of the creek at this point is about 3,850 feet. The lead consists of a shear zone 17 inches wide, with about 6 inches of sparsely mineralized quartz on the hanging-wall. It strikes north 30 degrees east and dips 80 degrees to the northwest. Just across the creek a shaft has been sunk on the vein and a drift run for 50 feet southwesterly back under the creek from the bottom. These workings were inaccessible. A little north of the shaft an adit, 50 feet long, has been driven into the hill, northeasterly on a narrow shear zone containing 4 inches of mixed quartz and sheared country rock; the quartz is rusty, but otherwise there is little evidence of sulphide. Towards the face the quartz appears to be dissipated along joint planes in the country rock rather than confined to the shear zone.

About 500 to 600 feet along the strike of this vein zone four open-cuts expose narrow quartz veins in what has been assumed to be a continuation of the same zone. The area intervening between these and the Gold King workings is heavily drift covered. From the attitudes of the veins in these cuts it is apparent that they are small gash veins in the volcanics and it is doubtful if they are the continuation of the Gold King vein zone.

About 500 feet northerly from the shaft another adit has been driven 65 feet on a narrow shear which is nearly parallel to the Gold King vein. The shear strikes north 40 degrees east and dips 80 degrees to the northwest. It is 3 to 4 inches wide and, in places, carries quartz stringers; in other places there is little or no quartz. Both the quartz and the sheared country rock are well mineralized with pyrite. Values up to \$15.40 a ton in gold across 4 inches are reported to have been obtained from this working. About 50 feet above the adit and, possibly, 60 feet horizontally from it along the strike of the shear, a bunch of quartz 3 1/2 feet wide and about 10 feet long appears in a cut. Three feet from this, on the foot-wall side of the cut, is an 8-inch vein of quartz and at a similar distance on the hanging-wall, a narrow stringer of quartz from which Mr. Fisher states he has obtained free gold.

Two other small stringers occur at 10 and 20 feet east of this showing. These average a couple of inches wide, strike about north, and dip almost vertically. They carry pyrite and some malachite. A cut 15 feet north of the large quartz bunch shows a quartz vein striking north and dipping about vertically. It is 4 to 6 inches wide at the outer edge of the cut, but at the face a few feet away its width is only 2 inches. The quartz is full of drusy cavities filled with limonite and manganese oxide.

About 100 feet up the hill and slightly to the west of the last showing is a quartz vein striking north 10 degrees east and dipping very nearly vertically. This varies from 1 foot to 18 inches wide. A few feet up the hill a short adit has been driven on this vein which there shows the same characteristics but is slightly wider, averaging about 2 feet. A few feet higher, quartz float, heavily impregnated with pyrite, occurs, but its source has not been located.

About 750 feet above the creek and northwest of the showings previously described a quartz vein about a foot wide, striking north 30 degrees east and dipping 60 to 70 degrees southwest, is exposed on a small

225

ST. LOUIS ; GREY : Cu, Mo, Fe

L 925?

: Rossland Au-Cu porphyry intruded by

Neon Granodiorite, between the two is

: between the two is Rossland Porphyry Monzonite

: small exposure Hornfelsic sed

: po, py, cp in g veins

(235)

8881, 9031

235

HUNGARY MAN : Au, La, Niobium, Cu

L 4083

: Po-rich shear zones in sed: & vales

: some sed thin bedded cherts & lst. - skarn development is minor

: Homophyre dykes are numerous, may be related to mineralization

: younger f.g. field (crowded) porphyry intrusion is present - contains vales in Cu, Co, Lanthanum, Cesium & Neobrymium; more common minerals include arsenopy, py, cp, sph, galena

ASS 8881 - DPH on geophysical targets

- zone limited extent, not intersected indications low temperature wet alteration

- significant Au in core associated with cp, py, po of assemblage; Au enrichment in netuvole schists → but not copper;

- can't read map

9031 - geophysics



ASS 116 18

1864 Union : Pb, Ag, Zn, Au  
 L 944 : N trending fissure vein in argillaceous quartzite  
 : silver - lead - zinc minerals & lesser Au  
 : galena sph, gold.

1937, 46, 52	Thomas MILLER	Au	Ag	Pb kg	Zn
	MILNER				
	31	0	187	37,945	5,019 2558

116 18 - Hanna, Acme, Top mc.  
 - NE trending Ag max 1390 ppb, background 200-300 ppb  
 : country rx 360° / 43° W  
 : Au max 42 ppb most < 4 ppb in ~ 130  
 samples; ~~very~~ weak NW trending anomaly  
 & no assoc. & Pb, Zn, Ag anomalies

5558

222 : WHITEWATER, COLUMBIA, SNOWWATER : Au, Ag  
 L529 L3136 L3127

COLUMBIA L3136  
 MIDAS L3135  
 TERRY BEAR MC.

: underlain by c.g. lenses (Nelson Batholith)  
 homogeneous some local shear zones; suspect  
 some q vns in shears  
 : flat bldo. with q & minor galena = diss py  
 carry Au, Ag values

1890, 1932, 33	TONNES	MILLES	Au g	Ag g
	MW50			
	40	0	1,151	1804

5558 : SNOWWATER : Bldn & float analysis

	Au	Ag	Au	Ag
pyrite bld.		1.55	0.71	
even q float <del>q</del> & <del>py</del>		1.45	0.49	
q & py		1.70	1.320	
diorite & q & fract py	0.42		0.195	
diorite & q veins etc	0.55		0.350	
diorite & Sth schist & mgn	0.19		0.093	
q vns, diss py, minor galena	0.10		0.060	
" " "				
minor galena	0.10			

89 GOOD HOPE : Au, Ag  
 : q mica & q chl schists found locally on  
 part of the Grosvenor Rossland  
 : bands & lenses of q  $\bar{c}$  interbands of pyrite  
 & siliceous schist; vsg. var V.G. in oxidized  
 portions of pyrite q & schists

1911-1944	Tonnes	mined	Au g	Ag	0 - Cu, Pb, Zn, Mo
5 years	MINCO	0	2,799	2,489	
	48				

MAR 1928 : fissures || foliation  $\bar{c}$  bands & lenses  
 : free Au in rusty decomposed material  
 : lowest tunnel 2-10" width from "holes all lead"  
 1.80 g 1/t Au, 2.62 g 1/t Ag 1% Cu

130 VANDOT, MAYFLOWER ~~NO~~ No 2 : Au, Ag, Pb, Cd, Cr, CH  
 L1274 : ultrabasic (serpentine); chromite  
 found where trenching & ~~SA~~ stripping carried out

1948 74%? 0 Tonnes mined yet  $\rightarrow$  74% CD.

157 URAL : Au, Ag  
 L. 2944 : Rossland Monzonite, of Nelson Barthollett  $\bar{c}$   
 minor Au, Ag values

	Tonnes	Mined	Au g	Ag g	0 Cu, Pb, Zn, Mo
1935, 1936	Mined	8	218	311	
		8			

u

158 CASINO RED CAP, W.D : Au, Pb, Ag, Zn

: number of small  $z$  bodies lying in  
weak fractured zone in monzomite; at/near  
contact of Monz.  $\bar{c}$  thin bedded siliceous sed.

(Rowland)

: in quartz sparingly mineralized  $\bar{c}$  py, sp  
gg  $\bar{c}$  aspy  $\bar{c}$  associated Au

1957-65	Tonnes MINERS	MILL TON	Au g	Ag g	Pb kg	Zn kg
9 years	5,514	0	81,334	23,949	6,009	5,982

0 Cu, Mo

161 DOUGLAS : Pb, Zn, Ag, Cu  
 L2865 : fissure filled in cgl of Sophie Mtn. Fm  
 gangue of  $q$   $\bar{c}$  galena & sph  $\bar{c}$  some py & cp

1949,50	Tonnes MINED	MILLED	Ag g	Pb kg	Zn
	9	0	591	592	479

162 VELVET : Au, Cu, Ag, Zn, Pb  
 : underlain by serpentinite which forms huge roof  
 pendant surrounded by Coryell Syenite  
 : in syenite large xenoliths of Newland Volcs.  
 : Pendant rocks <sup>cut</sup> by dykes of Coryell &  
 Nelson Plutonic  $\bar{x}$   
 : mineralization Cu & Fe sulfides & Moly in  
 gangue of altered wall  $\bar{x}$  &  $q$  ; minor scheelite

1901-1964 (35 years)	Tonnes MINED	MILLED	Au g	Ag g	Cu kg	Pb kg	Zn kg
	88,833	21,613 (6 years)	620,785	664,359	1,154,104	37	25.

163 LORD ROBERTS : Cu, Ag, Au  
 L12606 : Pennsylvania: Argente p & Lot of  
 Mt Roberts? Fm.  
 : magnetite, po, cp, py, bismuthinite?  
 in gangue gangue of  $q$ , hornblende & feld.  
 : possibly result of contact meta  $\bar{c}$  Nelson  
 Batholith  $\bar{x}$ ; epidote, garnet present

1924	Tonnes Mined	7 ; 0 MILLED	0 g Au, 187 g Ag	22 kg Cu
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MAR 1920: best grade in massive magnetite 54% Fe, 2.69% S

2161, 5355, 5776

160 SUNSET : Ag, Pb, Zn, Au, Cu  
 L. 6563 : Rossland rocks overlain by Penn. Mt. Roberts  
 PAT 1-22 N.C. : Fm argillaceous seds. ~~intruded by~~  
 : intruded lenses granite of Eocene? or later  
 Sheppard Plut. Rocks  
 : mineralization in veins & disseminations  
 galena, sph & cp & associated Ag; trend E'  
 dip ~ 75° S, veins in lat beds

1898-1964	Tonnage	Milled	Au g	Ag g	Cu kg	Pb kg	Zn kg
5 years	43	0	373	4,448	99	1420	1940

Ass 2161 : Gypsum veins in lat / cherts contact  
 : mineralization concentrated in fissure zone ~ 1 ft across  
 but visible over width of 36 ft.

Drill assays :	1 ft	12.7 g	oz/t Ag	12.3 %	Pb	16.4 %	Zn
	6 ft	11.4	oz/t Ag	10.6	Pb	15.3	Zn
	2 ft	7.9	Ag	4.4	Pb	0.7	Zn
	0.5 ft	6.5	Ag				
Minimum	0.6	oz/t Au	Ag	4.0	Pb	6.2	Zn

: alteration = sil of argillites & py chert; not  
 always reported to be present

5355 : Soils over Pat. M.C. ; no Ag except over sunset Shale.

5776 : Geophysics ⇒ 2 NE trending zones ~ coincident with  
 Cu, Pb & Zn anomalies

27

4



100

*Faint handwritten notes at the top of the page, possibly describing geological observations or survey data.*

bluff. Specularite, tetrahedrite, and malachite are scattered through the quartz. The vein is exposed for about 15 feet. No sampling has been done.

About 1,000 feet above the creek and some 500 feet west of the last showing a shear zone is poorly exposed in a large cut. The direction of the shear is probably northeast and the dip southwest, but this cannot be told with certainty from the exposure. The zone is about 15 feet wide. Several bunches of quartz appear in the cut; one on the north side appears to cut across the shearing and one on the south side seems to follow it. Pyrite, limonite, and manganese oxide appear both in the quartz and the sheared rock. Mr. Fisher reports that he has obtained specimens of free gold from this showing.

About 400 feet above and some 450 feet northeasterly from the Gold King shaft, a short adit has been driven on a shear zone striking north 40 degrees east and dipping southwest at 80 degrees. The zone is about 18 inches wide and carries stringers and bunches of quartz in the sheared country rock. Along the hanging-wall there is a heavily pyritized streak about 1 inch wide. This has not been sampled.



185 ASS 3303, 3304, 6379

185 GOLDEN AGE: Au, Ag, Pb, Zn, W, Cu

contains: shear & gouge zone in Rossland Andesite  
with enatic stringers & matrix of q. variously  
mineralized = sulfide  
underlie ~~same property~~ meta argite porphyry & Andesite (Rossland)

- : schistosity N 40° W dip SW
- : tongue of Nelson granite crops out 800 ft. SW of Euphrates workings
- : mineralization largely in shear zones ~~that~~ that || to schistosity; py, cp, sph, tetra, galena, ankerite, scheelite, Au, Ag; minor chl
- : see also "Euphrates" work EUPHRATES # 186

1928 - 1973 (7 years)	TUNES MINED 155	MILLED 2	Au g, Ag g, Cu	Pb	Zn
			1243 9673 107	225	227

BCDM: greenstone ~~notably~~ noticeably noticeably altered near veins

: see also Euphrates

ASS: 3303 : 38" Channel across Pillar 0.56 g Au, 1.53 Ag & 0.80 % Cu

- : main adit follows structure ~~hor~~ N 35 to 50° W dip SW 50 to 80°
- : sheared & mineralized sections often bounded by dip &/or faults; mineralized width inches to several feet, few feet to ~100 ft. long; complex system en echelon; formaline in q pod close to sheared up area

SAMPLE	Au <sup>g/t</sup>	Ag <sup>g/t</sup>	Cu %	Wg %
45" upper adit	0.7	0.09	0.01	
2 1/2" surface, vein	0.06	0.3	0.05	
18" shear near first stope	0.10	0.2	0.07	
24" w shear, sil	tr	tr	0.01	
24" foot wall of 7' dy	tr	tr	0.02	
48" w shear, sil	tr	tr	0.02	
12" 1 1/2" q vein, across; py, cp	0.16	0.3	0.07	
50" chip	0.04	0.8	0.03	
36" shear, channel	0.18	0.2	0.05	
60" chip	tr	tr	0.01	
24" sil zone near stope	0.08	0.1	0.04	
35" pillar, sheared & folded	0.22	0.6	0.34	
24" slotted up area, main chuff	0.20	1.3	0.38	
39" sheared, folded, sil	tr	tr	0.01	
55" 3 narrow q str	0.02	0.1	0.03	
48" w shear, sil	tr	tr	0.02	
54" w shear sil	tr	tr	0.01	
32" foot wall of narrow dyke	0.04	0.1	0.11	0.07
37 fluorescent zone	0.20	0.8	0.1	0.23

ASS : 3304 : Cu & Ag in rocks increases signif. over vein

: 16 channel samples across vein system & 4

previous samples lead to 2

Ave grade across widths sampled Cu % 0.29 Ag g/t 0.82 Au g/t 0.21

Ave across 304 mm mining width 0.26 0.74 0.1875

: main vein/ston not particularly magnetically discernable

MAR 1922: vein N ; 0.18 <sup>02</sup> ~~g/t~~ Au 0.70g Ag over 14"

grade from pile of sulfide ore 1.20 g/t Au, 6.2 g/t Ag  
strong pyrite, little sp; in place? uncertain

## (26) Golden Age

*References:* Ann. Repts., Minister of Mines, B.C.: 1922, p. 208; 1928, pp. 324-325; 1929, p. 346.

This property, consisting of nine claims, is owned by the Golden Age Mining Company, Limited, of Nelson, in which E. and S. Terzian are reported to hold a controlling interest. It lies on the western side of Salmo valley about 10 miles south of Nelson. The workings are quite close to the Nelson-Salmo highway, one adit being just to the side of the road. The lowest adit is a short distance below the road and the upper adit 100 to 125 feet above it. The Great Northern railway passes within 100 yards of the lowest level.

The lower slopes of the hillside are extensively drift-covered, but outcrops show that the underlying formations are schists of the Rossland Volcanic group. Near the deposits these are cut by several, fine-grained, dark grey to green, narrow dykes. A specimen of one of these dykes, examined under the microscope, showed phenocrysts of the augite in a fine-grained groundmass containing some augite and feldspar. The rock is an augite kersantite and is very similar in appearance and composition to the dyke accompanying the Porto Rico vein. The dyke rocks are unshered, whereas the members of the Rossland Volcanic group are highly schistose. The deposit consists of one or more, poorly defined shear zones carrying stringers and bunches of quartz. Apparently these zones conform to the foliation of the surrounding rocks, striking north 30 to 50 degrees west and dipping 60 to 80 degrees southwest. They are mineralized with pyrite, chalcopyrite, galena, and zinc blende, these sulphides occurring, mostly, in the quartz. Values are principally in gold and are generally highest where there is considerable quartz and sulphides. Mr. Terzian was, however, able to point to places in the workings where values were obtained from the sheared country rock in which little quartz could be seen. The walls of the zones are indefinite, but mineralization is, in general, reported to occur across widths of 1 foot or less to 4 or 5 feet. In places the narrow dykes mentioned above form well-defined walls to the deposits.

The lowest adit is 50 to 60 feet below the road. It is driven 130 feet in a northwesterly direction and includes a short crosscut southwest about 20 feet from the face. This working apparently crosscuts a zone, containing some quartz, at an acute angle. A dyke, about a foot wide, occurs on the westerly side of the adit at the face and disappears in the opposite wall of the adit about 40 feet from the face. A second dyke, also about a foot

wide, appears on the western wall of the level about half-way between the portal and the face, but pinches out in a short distance towards the south-east. The rock on the eastern side of the first dyke is heavily sheared, but contains no quartz or sulphides. The crosscut, which penetrates through the dyke, discloses a narrow band of ore on its western side. Other small bunches of quartz and sulphide mineralization appear along the level, but no continuous zone can be defined, and it is by no means certain that the working is on the same zone as that exposed by the upper levels.

The middle adit, at the level of the road, is about 100 feet northwest of the lower adit and is about 800 feet long. It is a drift on the shear zone which strikes north 50 degrees west and varies from about 10 inches to 5 feet wide. A dyke forms the hanging-wall of the deposit for about 500 feet to where it apparently pinches. About 350 feet from the portal a crosscut has been driven southwest for 60 feet. At 565 feet from the portal a fault strikes north 60 degrees west and dips 15 degrees southwest, but the offset cannot be measured. The deposit ends southeast of the fault, and appears again about 115 feet past it. Several ore shoots are reported to occur along the adit. One shoot is stated to lie northwest of the fault, to be 150 feet long, and to end near the face. It is claimed that values in this section average \$12 a ton over widths ranging from 2½ to 4 feet. A good deal of quartz, mostly as stringers, running in the direction of the shear zone, appears along this section of the zone. Both this quartz and the country rock carry pyrite and chalcopyrite. Just above the fault values are stated to run \$9 a ton across a width of 4 feet; the zone has here practically no quartz in it. Near the crosscut a length of 50 feet of ore is reported, with assays of \$18 across 10 inches. Near the portal another 50 feet of ore is reported. The shear zone is there 5 feet wide and contains masses of rusty quartz in decomposed and oxidized schist.

The upper adit is about 250 feet, northwesterly, from the intermediate level and 100 to 125 feet higher. This adit is about 210 feet long. It is driven along the shear zone with two short crosscuts, one 15 feet to the northeast and situated about 25 feet from the face and the other 6 feet to the southwest and about 70 feet from the face. The zone is here somewhat similar to that in the middle adit, with bunches and stringers of quartz across a width of 2 to 4 feet. As in the middle adit, several short shoots of ore are reported.

A small stamp mill was built on the property, but was destroyed by fire in 1929. It is stated in the reports of the Minister of Mines, British Columbia, that very little ore from this property was put through the mill.

### (27) Apex Group

This group is on the west side of Roaring creek about a mile northeast of Apex station which is about 6 miles south of Nelson on the Great Northern railway. It was being prospected by J. F. Coats. The group consists of eight claims owned by Messrs. Frank, Joe, and John Ogenski, and George Benwell, jun.