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GEOLOGICAL EVALUATION
and
EXPLORATION PROGRAM

WINSLOW GOLD PROJECT
REVELSTOKE MINING DIVISION
SOUTHEASTERN BRITISH COLUMBIA

82 K / 11 W

50° 37' N 117° 23' W

for

SASKO-WAINWRIGHT OIL AND GAS COMPANY LIMITED
Calgary, Alberta

by
R. K. Netolitzky, P.Geol.
TAIGA CONSULTANTS LTD.
Calgary, Alberta

December 12, 1980

C E R T I F I C A T E

I, the undersigned, of the City of Calgary, in the Province of Alberta, do hereby certify that:

1. I am a consulting geologist with the firm of Taiga Consultants Ltd., with offices at #100, 1300 - 8th Street S.W., Calgary, Alberta;

2. I am a graduate of the University of Alberta, B.Sc. in Geology (1964), and of the University of Calgary, M.Sc. in Geology (1967);

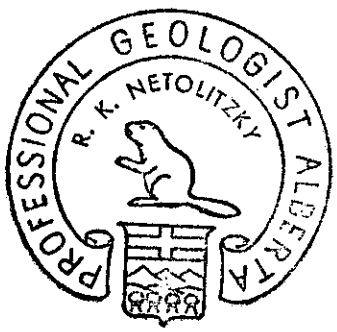
3. I have practised my profession continuously for thirteen years since 1967;

4. I am a member in good standing of the Association of Professional Engineers, Geologists and Geophysicists of Alberta;

5. I personally visited the claims during October 1980, and supervised the field work thereon conducted; and

6. I have prepared this report at the request of Mr. Gerald N. Ross, whose offices are located at 574 One Calgary Place, Calgary, Alberta.

DATED at Calgary, Alberta, this 13th day of December, 1980



Respectfully submitted,

R. K. Netolitzky, M.Sc., P.Geol.

SUMMARY

The property consists of one 9-unit mineral claim, one 6-unit mineral claim, and five Crown-granted mineral claims and is herein referred to as the WINSLOW GOLD PROJECT.

The Winslow Gold Project area is located in the Kootenay Arc near Trout Lake in the Lardeau district of southeastern British Columbia. The Kootenay Arc is a complex geological zone more than 100 km in length that contains several hundred precious metal and base metal occurrences. A number of these occurrences in the Trout Lake area, including the Winslow occurrence, are former precious metals producers. The best-known of these is the old Sunshine-Lardeau mine. Former production at the Winslow prospect consisted of the mining and shipping of a few hundred tons of "high-grade" or "direct-shipping" ore, since the transportation infrastructure and economics of earlier eras did not encourage the development of lower grade zones of the deposit. The Winslow, Okanagan-Enderby, and Alice prospects are simple vein structures mineralized with pyrite, galena, sphalerite, and rare free gold. The veins all have yielded potentially mineable gold and silver grades over significant strike lengths. Previous production in the Winslow mine was from a pipe-like high-grade ore shoot, which was mined largely by hand methods.

The soil sampling program located a few weak anomalies which require further detailed evaluation.

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INTRODUCTION

PROPERTY, LOCATION, AND ACCESS

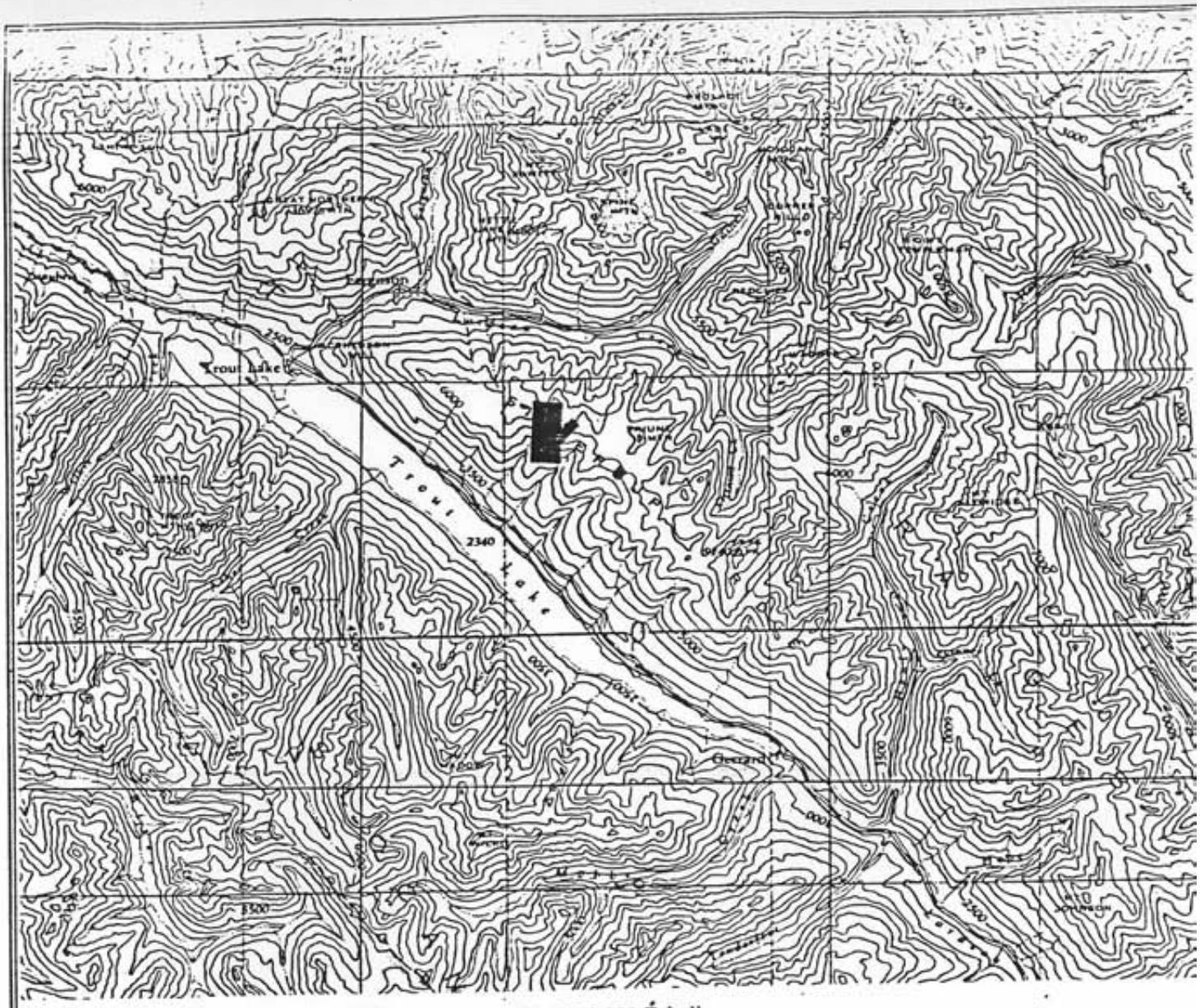
The Winslow Gold Project properties consist of one six-unit mineral claim and one nine-unit mineral claim staked under the modified grid system, and five Crown-granted mineral claims. The claims are located in the Revelstoke Mining Division in southeastern British Columbia (Figure 1). They are situated along Silver Cup Ridge approximately 6 km northeast of Trout Lake in the Lardeau district. Four of the Crown-granted claims and the Rit 1 and 2 claims form a contiguous block of ground. The fifth Crown-granted claim is situated approximately 3 km southeast of the contiguous block (Figure 2). The various claims are described more specifically as follows:

Claim Name	Record Lot No.	Owner	Area	Record Date
Rit 1	769(10)	Gerald N. Ross	225 hectares	October 1979
Rit 2	770(10)	"	150 hectares	October 1979
Alice	L 7440	"		
Winslow	L 8680	"		
Gladhand	L 8681	"		
Okanagan	L 9127	"		
Enderby	L 9128	"		

The status of ownership of the above claims has not been checked personally by the writer. The above claim ownership information has been supplied to the writer by Gerald N. Ross.

The contiguous block of claims is accessed via a maintained gravel road along the northeast side of Trout Lake to a point 29 km south of Beaton. Maintained gravel roads and four-wheel-drive roads to the Silver Cup property form the nearest road access. From the Silver Cup road, the property is within 2 km by foot.

Only one post related to the Rit claims was observed during the program. Blazed claim lines related to the Rit claims was not observed during the reconnaissance coverage.



Scale 1:250,000 Échelle

Miles 5 0 5 10 15 20 Miles

Kilometres 5 0 5 10 15 20 25 30 Kilometres

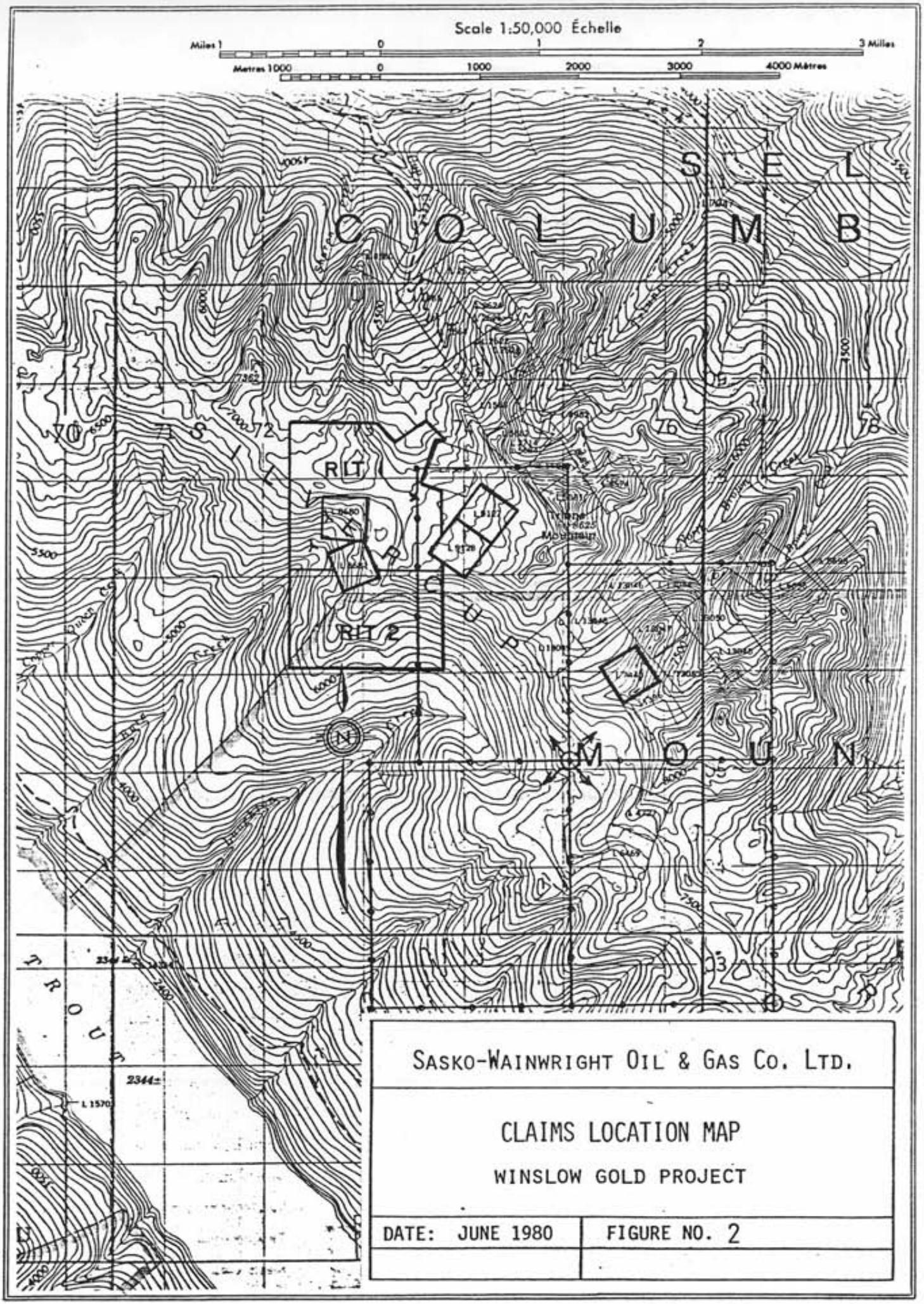
SASKO-WAINWRIGHT OIL & GAS CO. LTD.

LOCATION OF WINSLOW PROJECT

N.T.S. 82-K-11

SOUTHEASTERN BRITISH COLUMBIA

DATE: JUNE 1980	FIGURE NO. 1


Scale 1:50,000 Échelle
Miles 1
0
1
2
3 Miles
Metres 1000
0
1000
2000
3000
4000 Mètres
COLUMBIA
MOUNTAIN
RIT
RIT 2
TESLIN
TROUT
2344±
L 1570
N
SASKO-WAINWRIGHT OIL & GAS CO. LTD.
CLAIMS LOCATION MAP
WINSLOW GOLD PROJECT
DATE: JUNE 1980
FIGURE NO. 2

PHYSIOGRAPHY

The claims are located along the crest and southwesterly facing flanks of Silver Cup Ridge in the Columbia Mountains. Elevations on the property range from 1678 m (5800') ASL to 2470 m (8100') ASL. The Rit 2 claims and Winslow and Gladhand Crown grants are situated near treeline (approximately 2134 m [7000'] ASL) and the remainder of the property is situated over alpine tundra. The slopes facing Trout Lake are very steep and are covered with a thick growth of spruce, fir, balsam, and underbrush. The headwaters of Burg and Laughton Creeks drain the claims.

The region has been glaciated to an elevation of at least 2500 m (8200') ASL and Triune and Silver Cup peaks form prominent horns above this elevation. Most valleys exhibit evidence of glaciation, and cirques, arrêtes, and serrated razorback ridges are common. The lower slopes of mountains are covered with variable thicknesses of glacial deposits, resulting in only fair bedrock exposure.

GEOLOGY

RELEVANT PUBLISHED GEOLOGICAL DATA

The first geological map of the area was published in 1929 and accompanies GSC Memoir 161. Numerous descriptions of mineral occurrences in the region appear in British Columbia Minister of Mines Annual Reports, chiefly from 1890 to 1914. Other descriptions appear in GSC Summary Reports and Annual Reports and are referenced in more detail elsewhere in this report. Excellent descriptions of the regional geology and mineral deposits are included in British Columbia Department of Mines Bulletin 45. GSC Bulletin 193 includes much relevant geological information. The most useful and up-to-date work is included in GSC Open File 531, published in 1978.

REGIONAL GEOLOGY

The Winslow Gold Project area lies within a geologically and structurally complex zone known as the Kootenay Arc, which forms part of the Purcell Anticlinorium in the southern Rocky Mountains. In the Trout Lake area, the Kootenay Arc is comprised of interbedded sedimentary and volcanic rocks of late Proterozoic to Mesozoic age, which have been subjected to multiple phases of deformation, metamorphism, and intrusion. The Winslow Gold claims are underlain by mafic volcanics, fine-grained argillaceous and siliceous sediments, grits, and carbonates of the Lardeau Group of lower Cambrian to middle Devonian age. These rocks have been subjected to at least one episode of metamorphism and now consist of greenstone, limey green phyllite, phyllitic grit and phyllite, quartzite and quartz grit, limestone, and phyllitic limestone (Figure 3). Read (1973) has mapped two phases of deformation in the area.

The Broadview, Jowett, Sharon Creek, Ajax, Triune, and Index Formations are of chief importance in the project area. Considerable difficulties attend the separation and correlation of these units owing to their similarities in composition, rapid facies changes laterally and along strike, lack of fossil controls, and repetition of sequences through faulting and folding.

The following notes, excerpted from GSC Open File 531, illustrate some of the complexities of the area:

> The unfossiliferous Lardeau Group of presumed lower to middle Paleozoic age forms a broad belt northeast of the Kuskanax Batholith and extends eastward into Lardeau east-half (Reesor, 1973), and northward into Rogers Pass (Wheeler, 1963). The detailed stratigraphy of Fyles and Eastwood (1962) is used with some modifications. Sufficient observations of graded bedding determinations between Akolkolex and Incomappleux Rivers indicate the stratigraphic order of Fyles and Eastwood is upright. Grey and light green phyllite ([Pgp) and phyllitic limestone-([Pgc) dominate eastern exposures of the Index Formation, but on the southeast side of Akolkolex River, these rocks undergo a lateral facies change and pass southwestward into quartz grit and gritty phyllite ([Pggr). Layered dark green phyllite, commonly calcareous, and greenstone with rare pillows or volcanic breccia, comprise the uppermost member ([Pgv) of the Index Formation. Conformably overlying the Index Formation is dark grey to black siliceous phyllite divided by the massive, grey Ajax quartzite ([PAQ) into the lower Triune Formation ([Ptp) and the upper Sharon Creek Formation ([PsCp). Because of probable original variations in thickness of the Triune, Ajax and Sharon Creek Formations and later intense deformation, each of these formations ranges from a few tens to a few thousands of feet in thickness. Along the drainage divide between the Akolkolex and Incomappleux Rivers, detailed mapping shows these three formations pass southwestward through a lateral facies change into grit of the Index Formation (Read, 1975). Farther southeast, this facies change and faulting restrict Triune, Ajax, and Sharon Creek Formations to the area northeast of Lardeau River and Trout Lake. Layered green phyllite, locally limy, and greenstone of the Jowett Formation ([PJv) are lithologically indistinguishable from the uppermost volcanic member ([Pgv) of the Index Formation. These two volcanic units have been distinguished because of the interfering, and previously presumed unique sequence of Triune, Ajax, and Sharon Creek Formations. Recent detailed mapping shows rocks similar to the Triune-Sharon Creek interval in the overlying Broadview Formation on the southwest side of lower Sable Creek and in a belt which extends from the head of Horsefly Creek to the lower part of Lake Creek. In the drainage area of Lardeau Creek and Lardeau River and Lake Creek, volcanics of the Index Formation ([Pgv) are present where Jowett Formation ([PJv) is absent and vice versa. Because of lithologic similarities between the two units and antithetic distribution, further work may prove they are the same unit. Grey and light green phyllite, gritty phyllite, grit ([Pgs), and minor limestone ([PgC) compose the Broadview Formation. Metavolcanic rocks formerly mapped with the Broadview Formation (Fyles and Eastwood, 1962; Read, 1973), now are included in the Jowett Formation ([PJv). Because rocks of the Broadview Formation are similar to the Horsethief Creek Group and consist of unfossiliferous and dominantly quartzo-feldspathic grit composed of materials derived from a plutonic or high grade metamorphic terrain, the Broadview Formation has been correlated with the Horsethief Creek Group (Wheeler, 1960; Read, 1973). This correlation necessitates allochthonous emplacement of the Broadview Formation above the Hamill, Badshot and other units of the Lardeau Group. Recent mapping (Read, 1975) indicates a lateral facies change from phyllite and phyllitic limestone to gritty rocks which makes a tectonic contact between grits of the Broadview Formation and other rocks unlikely. In the Lardeau Group, the westward lateral facies change from phyllites of the Index, Triune, and Sharon Creek Formations on the northeast to gritty rocks of the Index and Broadview Formations on the southwest, implies a westerly source, possibly in the site of the present Shuswap Complex, to contribute detritus from plutonic and/or high grade metamorphic rocks.

Perhaps the most important points to note are the suggested equivalence of the Jowett and Index Formations and the implied correlation of the Broadview Formation with the Sharon Creek, Ajax, and Triune Formations.

Detailed descriptions of the major geologic units in the project area have been excerpted from British Columbia Department of Mines Bulletin 45 by J. T. Fyles and are included as an appendix. Since Fyles' division of units was somewhat different from Read's (Open File 531), Fyles' Table of Formations is also appended.

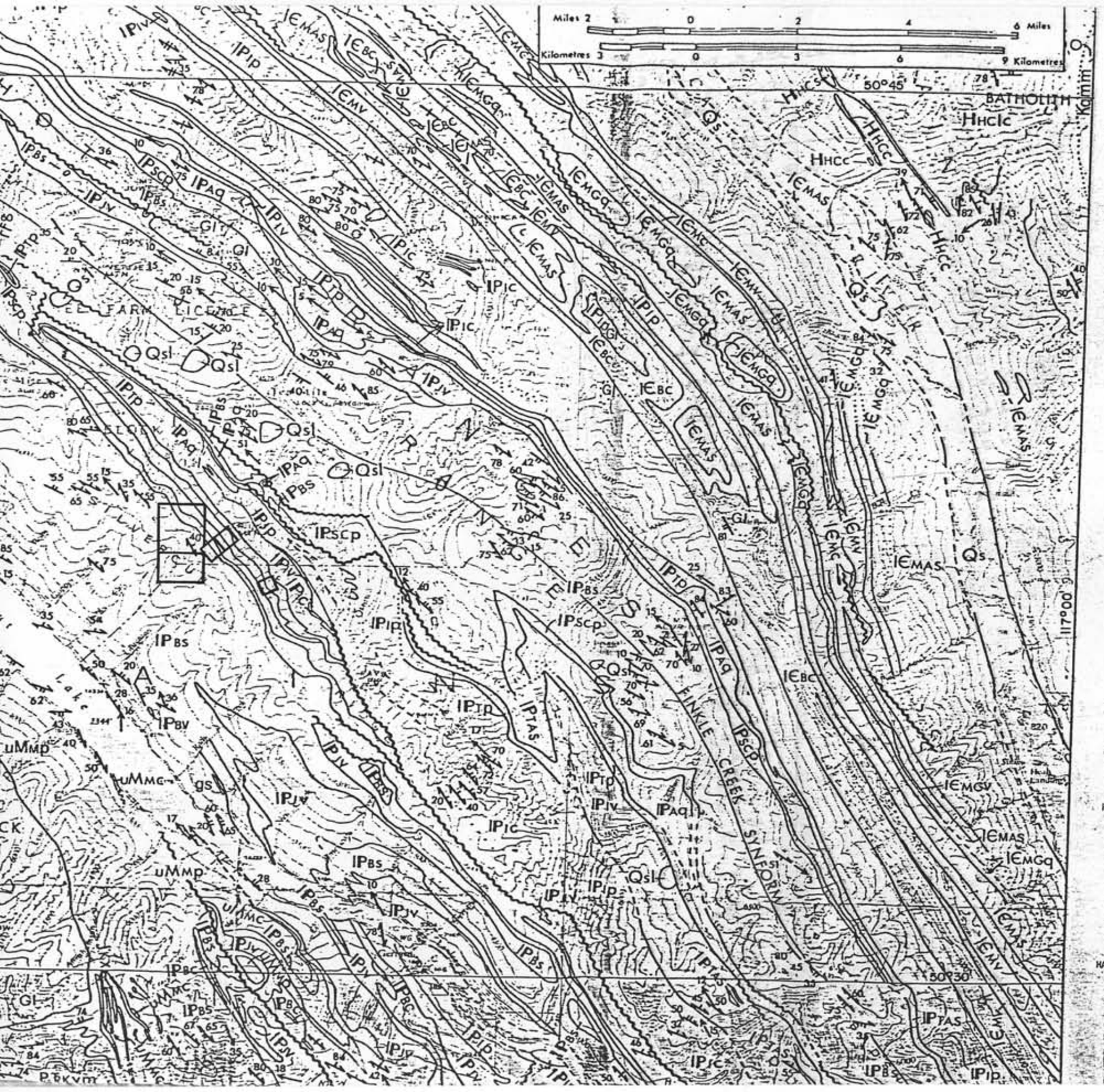
LOCAL GEOLOGY

Of the claims constituting the Winslow Gold Project, all of the Rit 2 claim and the Winslow and Gladhand Crown grants are underlain by the Broadview Formation as are the southwestern two-thirds of the Rit 1 claim and most of the Okanagan and Enderby Crown grants (Figure 4). The stratigraphically lower Jowett volcanics outcrop as a 400-metre wide band across the northeastern corner of the Rit 1 claim. The band narrows along strike to the southeast, and is only about 200 metres wide where it crosses the Enderby Crown grant. This width remains fairly constant as far southeast as the Alice claim (the southwestern boundary of which lies about 300 metres northeast of the band), but abruptly widens again approximately 1 km south of the Alice Crown grant. The extreme northeastern corner of the Rit 1 claim, the northeastern half of the Okanagan Crown grant, and the central part of the Alice Crown grant are underlain by the Sharon Creek Formation. The Ajax quartzite outcrops as a broad band underlying the northeastern one-third of the Alice grant.

The rocks of the Broadview, Jowett, Sharon Creek, and Ajax Formations all exhibit a regional northwesterly strike, locally complicated by folding. The dominant structural feature of the project area is the Silver Cup Anticline. At least one generation of penetrative foliation is related to this folding.

Detailed geological mapping of the above claims is available for the Winslow, Gladhand, Okanagan, and Enderby Crown grants and a limited surrounding area (originally part of the forfeited Winslow group) which is now included in the Rit group. This mapping was carried out by James Millar and Associates and was included in a report written in 1965 by James Millar, P.Eng. This mapping is included with this report, unaltered except for a slight reduction in scale from 1:2400 to 1:2500 (see map in back pocket).

FIGURE NO. 3



LEGEND

QUATERNARY

PLEISTOCENE AND RECENT

- Qs — Glacial deposits, recent alluvium, few if any outcrops
- Qsl — Landslide and rock slide debris

JURASSIC

- JKX — KUSKANAX BATHOLITH AND STOCKS: Aegerine-augite leucoquartz monzonite; minor leucosyenite and leucogranite
- LJKX — Foliated and/or lineated leucoquartz monzonite

PERMIAN AND/OR TRIASSIC

- gs — Hornblende and pyroxene meta-diorite and meta-andesite (includes Poplar Creek Greenstone). Pattern used where boundaries are undefined.
- PPKVM — Amphibolite

MISSISSIPPIAN TO PENNSYLVANIAN OR PERMIAN

UPPER MISSISSIPPIAN TO PENNSYLVANIAN OR PERMIAN

- uMMP — Grey and brown phyllite and meta-sandstone
- uMMC — Grey and white limestone, locally fossiliferous
- uMMCG — Conglomerate

CAMBRIAN TO DEVONIAN OR OLDER

LOWER CAMBRIAN TO MIDDLE DEVONIAN OR OLDER

LARDEAU GROUP

BROADVIEW FORMATION

- IPBC — Limestone, grey phyllitic limestone and grey phyllite
- IPBS — Grey and green phyllitic grit and phyllite
- IPJV — JOWETT FORMATION: green phyllite, limy green phyllite, greenstone
- IPSCP — SHARON CREEK FORMATION: dark grey to black siliceous phyllite
- IPAQ — AJAX FORMATION: massive grey quartzite
- IPTP — TRIUNE FORMATION: grey to black siliceous phyllite
- IPTAS — TRIUNE, AJAX, SHARON CREEK FORMATIONS: undivided

INDEX FORMATION

- IPIV — Green phyllite, limy green phyllite, greenstone
- IPIC — Phyllitic and arenaceous limestone; minor grey phyllite
- IPIP — Grey and light green phyllite; minor phyllitic limestone and quartz grit
- IPLV — Undivided: green phyllite, limy green phyllite, greenstone
- IPLC — Undivided: limestone, phyllitic limestone

CAMBRIAN

LOWER CAMBRIAN

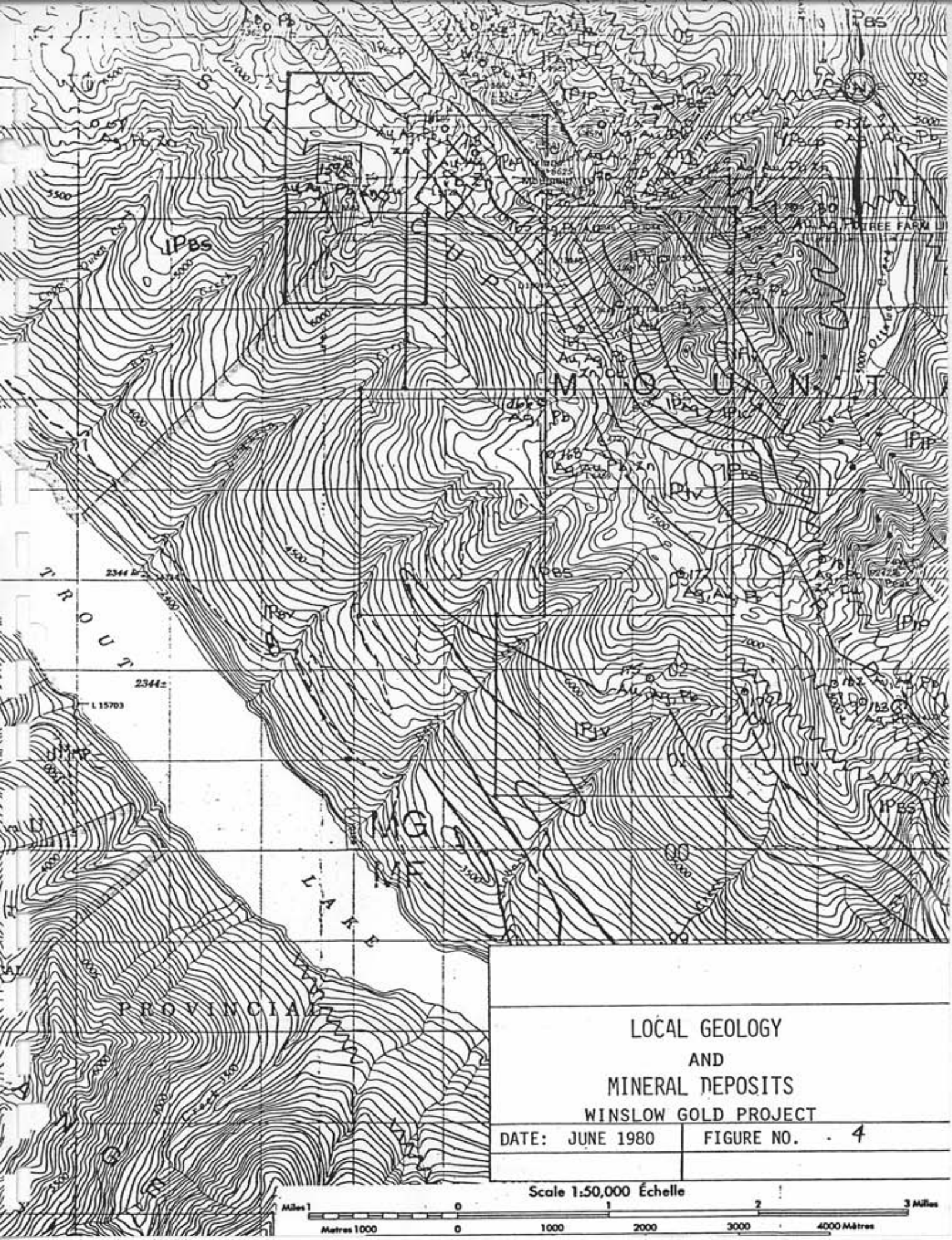
- IEBC — BADSHOT FORMATION: grey and white limestone

HADRYNIAN (WINDERMERE) AND/OR CAMBRIAN

- IEMV — Green phyllite, minor grey phyllite and limestone
- IEMC — White to light grey limestone
- IEMAS — MARSH ADAMS FORMATION: white, grey and brown quartzite, phyllitic quartzite; minor grey and black phyllite
- IEMGQ — MOUNT GAINER FORMATION: white quartzite
- IEMGV — Green phyllite, greenstone

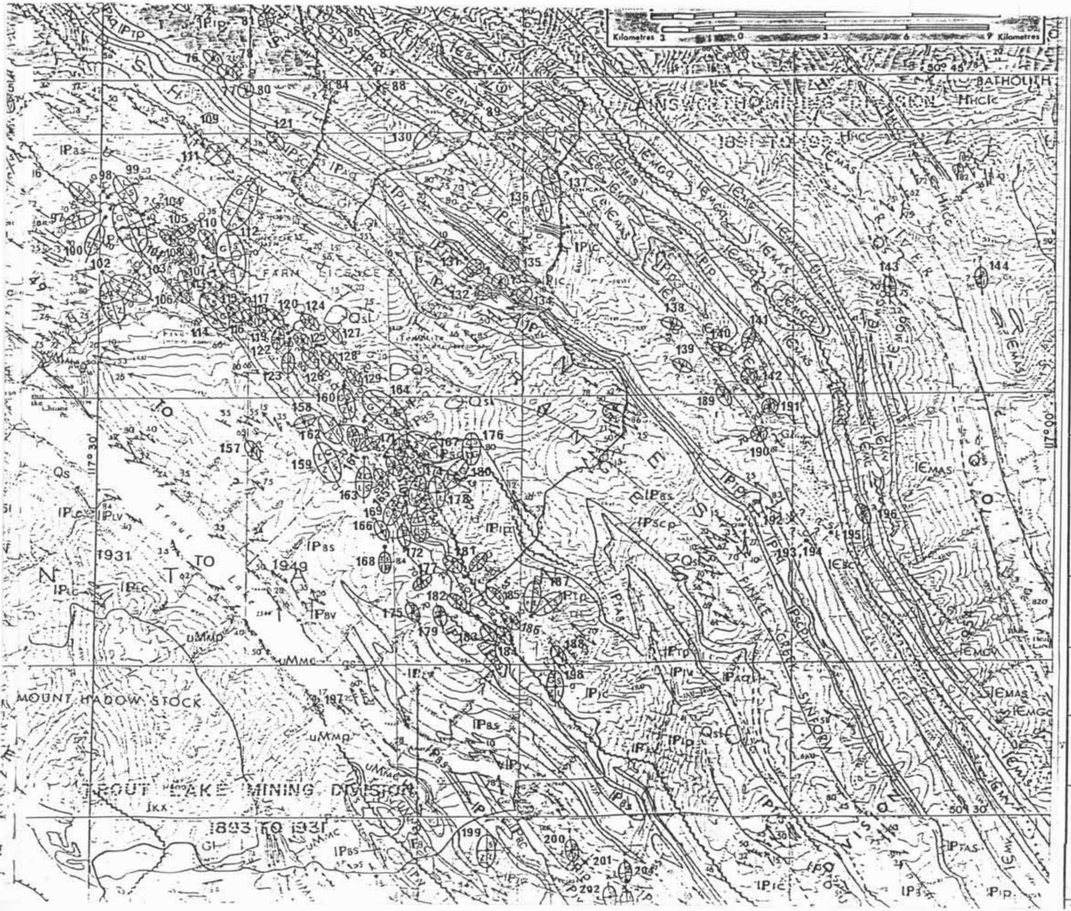
HADRYNIAN (WINDERMERE)

- HHCC — Limestone
- HHCLC — Lower Division: quartzofeldspathic sandstone and grit; grey slate, minor quartz pebble conglomerate; rare limestone
- HHCS — Undivided



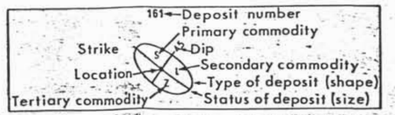
LOCAL GEOLOGY
AND
MINERAL DEPOSITS
WINSLOW GOLD PROJECT

DATE: JUNE 1980	FIGURE NO. 4



	SILVER QUEEN AND SILVER KING	AG PB
86	OLD GOLD	AG PB
87	SILVER LEAF GROUP	PB AG
88	EDNA AND GRACE C	AG PB
89	BADSHOT	AG PB
90	FERN AND EVELYN	MO ZN WO
91	ROYAL CANADIAN	AU
92	GREAT WESTERN GROUP	PB
93	(OCCURRENCE)	B
94	MAGGIE MAY	PB
95	MIKE	PB ZN AG
96	BEATRICE	AG ZN PB AU
97	ST. ELMO	PB AG ZN
98	WOODS	FE
99	BLUE BELL	PB AG ZN
100	GREAT NORTHERN	PB AG ZN
101	TRUE FISSURE (L.1097)	AG PB ZN AU CU
102	BROADVIEW	PB ZN AG AU CU
103	BRUCE	AU
104	TONAWANDA	CU
105	BALTIMORE	AG PB ZN AU
106	ABRAHAMSON GROUP	AG AU PB
107	NEW ZONE COPPER	CU NI
108	IXL GROUP	AG PB AU
109	HORNE GROUP	AG PB
110	MAY BEE	AG PB ZN
111	MUSKATEER	FE
112	NETTIE L	AG PB ZN AU CU
113	BROW	
114	AJAX	AG AU ZN PB
115	RAVEN	AG PB ZN
116	FLORENCE	
117	GLOBSCAP	PB AG
118	JUMBO GROUP	G PB AU
119	KOOTENAY GROUP	
120	BLACK EAGLE	AG
121	COPPER MOUNTAIN	CU
122	CANADIAN BOY	AG PB ZN
123	CANADIAN	PB
124	GOLD BUG	AG PB ZN AU
125	RAMBLER	AG PB ZN AU
126	DAVIE GROUP	PB ZN
127	PARRSBORO	AG PB
128	SHARON	AG PB
129	YUILL	AG PB ZN
130	LADE	AU
131	MOLLIE MAC	AG PB ZN CU AU
132	WHITE QUAIL	PB AG ZN AU
133	HIDDEN TREASURE	AG PB ZN
134	INDEX	PB
135	SILVER CHIEF	PB AG
136	MOHICAN	AG PB ZN
137	BLACK PRINCE	AG PB
138	WAGNER GROUP	AG PB ZN
139	LAURA J. AND WARD	AG PB
140	DEATH ON THE TRAIL, LITTLE TOM	AG PB
141	RED ELEPHANT	AU
142	BANNOCKBURN	AG PB ZN
143	REVO	B CU
144	IRENE	AG PB CU
157	COPPER QUEEN	AG PB ZN
158	CALIFORNIA	PB
159	WINSLOW	AU AG PB ZN CU
160	TOWSER	AG PB ZN A
161	[illegible]	[illegible]

163	OKANAGAN	AU AG PB ZN
164	SILVER CUP	AG PB ZN AU
165	CRESCENT	AG PB AU
166	MABEL GROUP	AG PB
167	TRIUNE	AG AU PB ZN
168	ALPINE	AG AU PB ZN
169	FOGGY DAY	AU AG PB ZN CU
170	CHANCE	AG AU PB ZN CU
171	MORNING STAR	AG AU PB
172	ALICE	AU
173	CROMWELL	AU AG ZN PB CU
174	IXL	AG AU PB ZN
175	GOLDEN CROWN	AU AG PB
176	NOBLE FIVE	AG AU PB ZN
177	JEWEL	AG AU PB
178	H.Y.M.	AG PB
179	ARALLU	CU
180	SILVER BELT	AU AG PB
181	HERCULES	AG PB ZN CU
182	SKYLINE	AU AG PB
183	SILVER PLATE	AG PB
184	SILVER TRAY	AG PB
185	BONANZA GROUP	AU AG
186	BUTTE GROUP	AG AU PB ZN
187	AMERICAN	AG PB
188	KOOTENAY BELLE	AG PB
189	FRANCIS JEWELL	AG PB
190	ABBOTT	AG PB ZN CU
191	SUPERIOR	AG PB ZN
192	J.C.	PB
193	SHOWSHOE GROUP	CU
194	RUSTY AXE	CU
195	GERTRUDE	AG PB
196	MABEL, MAUDE * NO.2	AU CU AG
197	YAMHILL	AU CU
198	FIDELITY	AG PB ZN AU
199	MAGNET GROUP	AG PB ZN
200	HANDY	AU AG CU
201	MORNING	
202	GLENGARNOCK	AU ZN
203	MAGGIE MAY GROUP	AG PB



STATUS OF DEPOSIT (1975)	Vein
Showing	○
Prospect	○
Producer, Past Producer - 1 - 100 Tons -	○
100 - 10000 Tons	○
10000 - 100000 Tons	○
> 100000 Tons	○

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 8642

SASKO-WAINWRIGHT OIL & GAS CO. LTD.

MINERAL DEPOSITS

WINSLOW GOLD PROJECT

DATE: JUNE 1980 | FIGURE NO. 5

ECONOMIC GEOLOGY

The Kootenay Arc is a metallogenic province hosting several hundred known precious metals occurrences in the Kaslo, Slocan, Lardeau, and other districts. In the Trout Lake area, mineral occurrences lie along three fairly well-defined belts variously referred to be earlier authors as the Lime Dyke Belt (easternmost belt), the Central Belt (in which the Winslow project area is situated), and the South Western Belt. Several tens of precious metals prospects and more than a dozen former producing mines are situated in the immediate vicinity of the Winslow project area (Figure 5). Of these, the Winslow (159) and the Okanagan (163) occurrences are covered by properties constituting part of the Winslow Gold project (numbers in parentheses refer to the number designating the occurrence on Figure 4). Both of these occurrences are former producers. Due to the remoteness and inaccessibility of the deposits in the early days of their development, former production consisted mainly of "high-grading" the ore. The Silver Cup (164), Triune (167), and Winslow were the most important producers in the vicinity of the project area. Less than 100,000 tons of ore was produced from the Silver Cup and less than 10,000 tons of ore was produced from each of the Triune and Winslow mines (see legend for Figure 4).

All of the prospects and former producers are vein-type occurrences exhibiting strikes varying from northwesterly and north-northwesterly to northerly, north-northeasterly, and northeasterly. Dips are 60°-70° on average. Mineralization in most occurrences consists of galena, sphalerite, pyrite, and occasionally chalcopyrite in a quartz and carbonate gange. High silver values accompany the galena-rich veins whereas high gold values generally run with pyrite in veins containing a relatively lesser abundance of galena. The various deposits in the belt can be crudely categorized as Au-Ag or Ag-Au deposits, depending upon the relative importance of the precious metals in the deposits. Ag, Pb or Ag, Pb, Zn, Cu deposits with negligible Au values occur more frequently than do Au deposits with negligible Ag values. However, no coherent pattern of zoning is obvious in the distribution of metals in the various deposits.

In the following detailed descriptions of the mineral occurrences, information is drawn liberally from an earlier report written by James

F. V. Millar and dated December 11, 1963. This report is included in its entirety as an appendix. Millar had available to him information contained in a number of reports relating to property examinations carried out between 1936 and 1955, which are not available to this writer.

MINERAL PROPERTIES

1. Winslow

The Winslow (159) occurrence is located at the head of Burg Creek on the southwesterly facing slopes of Silver Cup Ridge (Figure 5). The Winslow vein was staked prior to 1904, and most of the exploration and development work done on the vein was conducted prior to 1915. Some ore shipments were reported for 1918, but from then until 1933, the property was dormant. Attempts to rehabilitate the old workings began in 1933 and by the end of 1939 a new mill had been constructed and several tons of concentrates shipped. Milling operations continued through 1940 and 1941, when in the latter year, a small tonnage of ore was treated mainly from the Okanagan claim. The property again lay dormant from 1941 to 1971, when rising precious metals prices encouraged new work on the ground. During 1972 and 1973, minor surface work and road building was conducted on the claims. Subsequent to 1941, the property changed ownership several times and a limited amount of information is available from examinations carried out by professional engineers during this interval.

The Winslow vein has been traced from near the southern boundary of the Winslow claim (L 8680) to the crest of the hill between Sixmile Creek and Burg Creek. To date, approximately 1,000' of underground workings, driven from at least seven separate locations, have explored the vein over a vertical distance of 300' and a horizontal distance of 400'. Mineralization consists mainly of pyrite with lesser amounts of galena, sphalerite, and rare free gold. The vein system consists of two veins, aggregating 12' in width, with a 1½ to 4 foot panel of schistose material separating the two veins. The vein strikes about N20°E and dips 55°-60°E. The best gold values occur in a pipe-like ore shoot with grades tapering off horizontally along the vein structure. The vein is typical of other precious metals occurrences in the "Central Belt", which also exhibits limited potential along strike, but good continuity of grades with depth. The oxidized portions of the Winslow vein system are considerably enriched in gold, and have assayed as high as 5.4 oz/ton Au and 4.6 oz/ton Ag (MMAR, 1914). More representative grades of unoxidized vein material are reported by several authors to be:

Au (oz/ton)	Ag (oz/ton)
0.4	0.6

Although it is impossible to arrive at any meaningful estimate of possible tonnages at this point in time, it should be borne in mind that today's high precious metals prices and efficient milling and extraction techniques might significantly extend the mineable horizontal dimensions of the vein.

Underground development on the Winslow vein has been described in detail in Millar's 1963 report (see appendix) and is summarized below:

Underground workings are known to have been carried out at seven different levels on the Winslow vein structure. The locations of the various adits and workings are shown on Millar's 1963 map of the Winslow property, included in the back pocket of this report.

The uppermost workings consist of two adits or underground workings of an undetermined nature that were badly caved prior to an examination of the property in 1937. The vein was stoped to surface from these openings.

At the 1A Level, 6780' ASL, an adit has been driven 178', following the footwall of the vein. The initial 50' of the adit have been stoped to surface. 150' in from the portal, a "Y-raise" has been driven, following the footwall. The 'stem' of the 'Y' is 32' long and each arm is 50' in length (see figure in back pocket). This raise was reportedly actively mined in 1939-40.

No. 1 Level is located at 6740' ASL. This adit is reported to have been driven 62' with a total length of 50' following the footwall vein structure. A 40'-long stope in the high-grade ore shoot extends to surface through the 1A Level.

No. 2 Level, located at approximately 6640' ASL, was driven as a cross-cut for 160' and then drifted 80' along the vein, here averaging 6½ to 10' in width. Assays of samples collected during various examinations indicate that the adit did not intersect the high-grade zone of the Winslow vein. Millar indicated that earlier writers (McDougall and Scorgie) believed that the ore shoot was located to the south of the end of the cross-cut, but the drift had been driven to the north and consequently missed it.

No. 3 Level, located at 6540' ASL, was driven as a cross-cut for 300' and intersected the footwall vein, reported to be 52" wide at that point. A heavy flow of water in the vein structure apparently discouraged any further development.

No. 4 Level, located at 6240' ASL in the northwest corner of the Gladhand Crown grant, was driven in an attempt to intersect the Winslow vein at the lowermost level considered topographically feasible. The adit was driven in 1914 but never reached its objective apparently owing to financial difficulties.

During Millar's examination of the property in 1963, the No. 2 Level portal was cleared.

2. Okanagan-Enderby

The Okanagan-Enderby veins (163) are located on the Okanagan (L 9127) and Enderby (L 9128) adjoining Crown grants which are situated at the headwaters of Burg Creek about 1 km east of the Winslow and Gladhand Crown grants, and 1 km west of the peak of Triune Mountain. The Okanagan vein has been exposed over a length of 200', in a shallow basin near the summit of the ridge at an elevation of 7700' ASL. Workings consist of two 14' shafts and several open cuts. Approximately 200' south of the southerly shaft and 60-70' lower in elevation, a cross-cut was driven towards the vein but was stopped 10-20' before intersecting it.

The vein is one of a large number of barren and mineralized (variable amounts of pyrite and lesser galena, sphalerite, and chalcopyrite) quartz veins that are exposed along the gently sloping part of the ridge crest between Cup Creek and the steep slopes facing Trout Lake. The vein, where exposed, is 1½' to 4½' in width, strikes N10°W to N33°W, and dips 57°-65°E.

The following assays have been reported:

Location	Width	Au (oz/ton)	Ag (oz/ton)
N. shaft	1.2'	1.68	--
Grab at shaft	--	1.03	--
Grab at shaft	--	2.71	--
Grab at shaft	--	2.22	--
—	3.0'	5.4	5
Specimen (no gangue)	--	13.7	67.9
—	3.0'	1.9	2.9

The vein pinches out about 200' north of the above-described workings, but has been traced southerly from the workings for a 'considerable' distance.

The Enderby vein is exposed several hundred feet northwest of the southeast corner of the Enderby grant. The vein is reported to be 1½' to 3' in width, strikes N55°E, and dips fairly flatly to the east.

The following assays have been reported:

Width	Au (oz/ton)	Ag (oz/ton)	Pb (%)
Grab from dump	0.065	35.2	33.5
2'	0.04	46.83	43.43
2.5'	0.07	7.3	
14' trench	0.012	2.68	

The vein exhibits more similarities to the Silver Cup vein structures than to the Winslow, Okanagan, and Alice veins.

1980 FIELD PROGRAM

The 1980 field program was conducted between September 27 and October 9, 1980. Personnel involved were:

Ronald K. Netolitzky, M.Sc., P.Geol.
Robert W. Termuende, P.Geol.
Don McMillan, Senior Prospector
Mike Morin, Senior Prospector
J. Kraljic, Sampler
T. Termuende, Sampler
R. Green, Sampler
D. Thompson, Sampler
P. Revie, Sampler

The field program consisted primarily of geochemical sampling and geological observations.

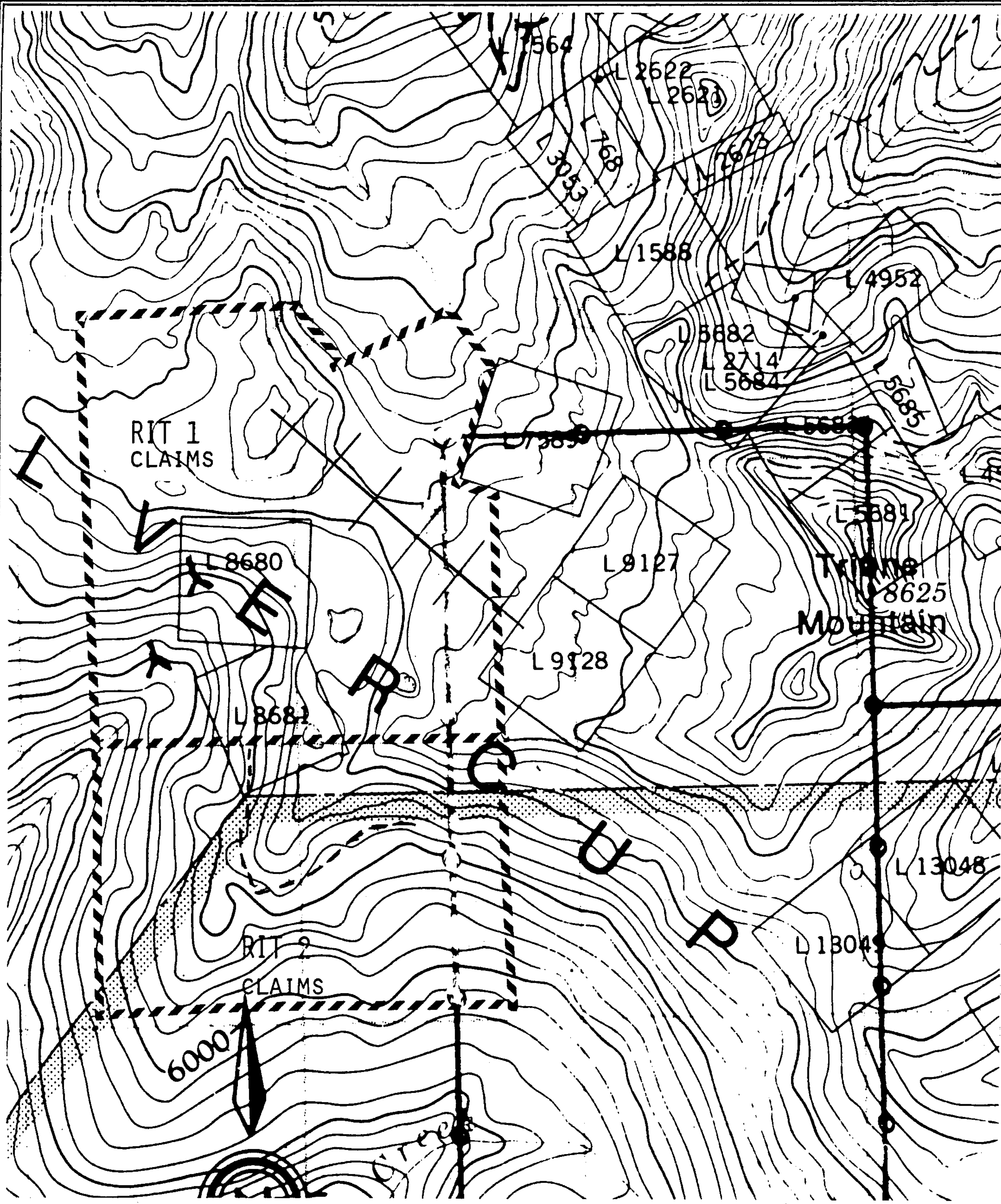
The Rit claims surround a group of Crown grants collectively known as the Winslow Gold Property which contains known precious-metal bearing (Au, Ag) quartz veins.

Aside from geological observations which confirm the published mapping and the presence of an abandoned mill site and old workings, a grid and reconnaissance lines were completed. In addition, a few silt samples and rock samples were collected and analyzed.

Rit 1 claim

A 1300-metre surveyed picket base line was completed with 500-metre long cross lines spaced at 200-metre intervals. Soil samples were collected on the lines at 25-metre intervals.

The samples were collected from a poorly developed B_1 horizon wherever possible. Five elements were analyzed for (Au, Ag, Pb, Cu, Zn) by Geo Analytical Services (Western) Ltd. in Calgary. The results are plotted on Figures 8 to 12.



LEGEND:

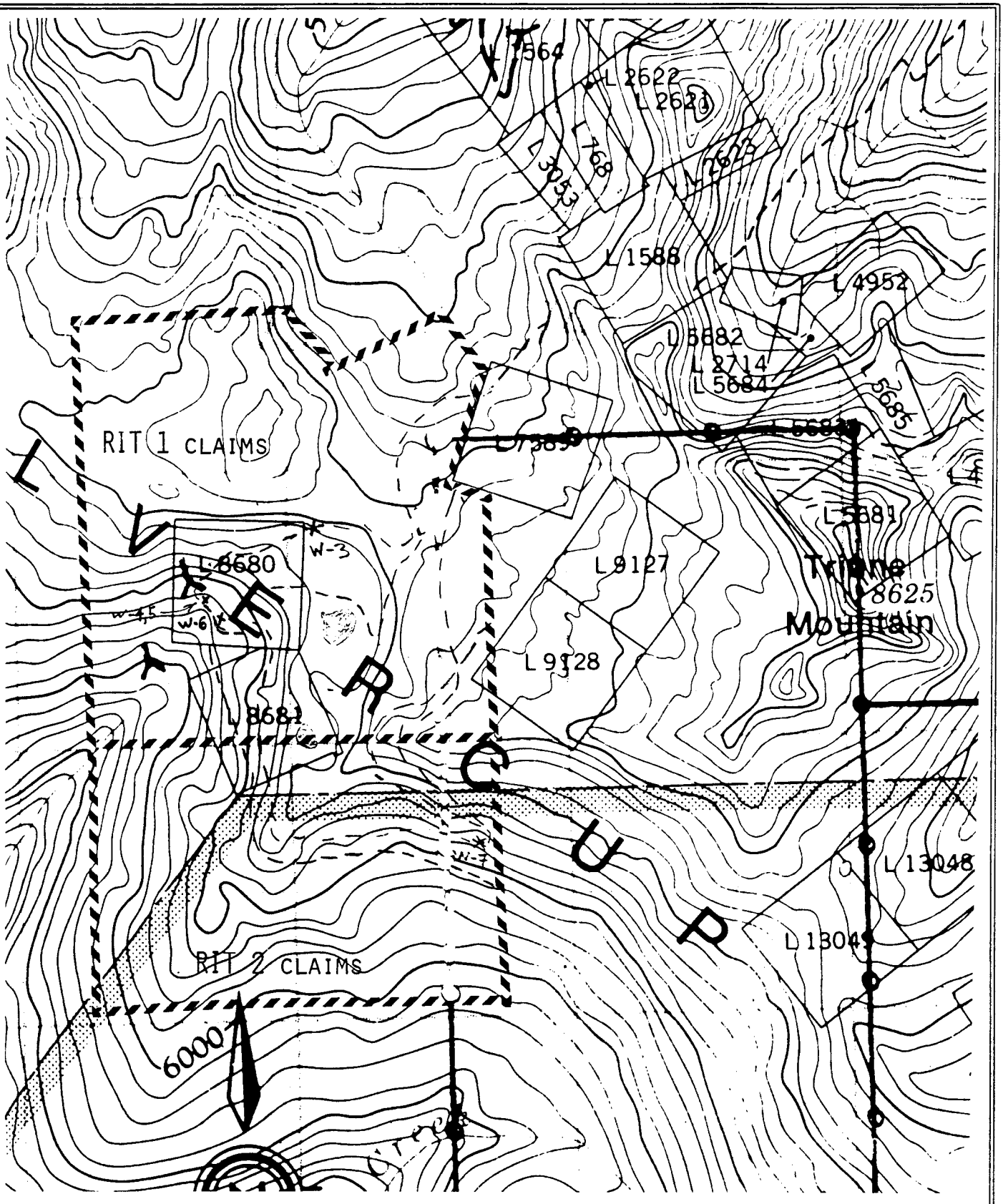
SOIL SAMPLE GRID

RECONNAISSANCE SOIL SAMPLE LINE

CLAIM BOUNDARY

SCALE 1 : 20,000

FIGURE 6



LEGEND:

---- PROSPECTING AND GEOLOGICAL TRAVERSES

x W-3 ROCK SAMPLE LOCATION

▰▰▰▰ CLAIM BOUNDARY

SCALE 1 : 20,000

FIGURE 7

Au results

Two anomalous areas are outlined on Figure 8 and are labelled "A" and "B". Anomaly A is outlined by three sample sites on the base line which returned 90 ppb to 130 ppb Au. No significant correlation with other metal values is evident. Anomaly B is outlined by three sample sites varying from 90 ppb to 160 ppb Au. Again, no significant correlation with other metals is evident.

Ag results

One area of higher and anomalous values (Anomaly C) on Line 00 returned a maximum value of 9.8 ppm Ag. There is a reasonable correlation with the Pb and Zn results.

Pb results

As mentioned above, there is a close relationship between the anomalous Ag and Pb values. The maximum Pb value obtained was 1200 ppm (Anomaly D) which is from the same sample that returned 9.8 ppm Ag.

Zn results

Two anomalous areas are outlined in the Zn results as Anomalies E and F. Anomaly E coincides with the anomalous Pb and Ag values. The highest Zn value was 540 ppm. Anomaly F, which is outlined by three sample sites returned a maximum value of 610 ppm. There is no significant correlation with other metals.

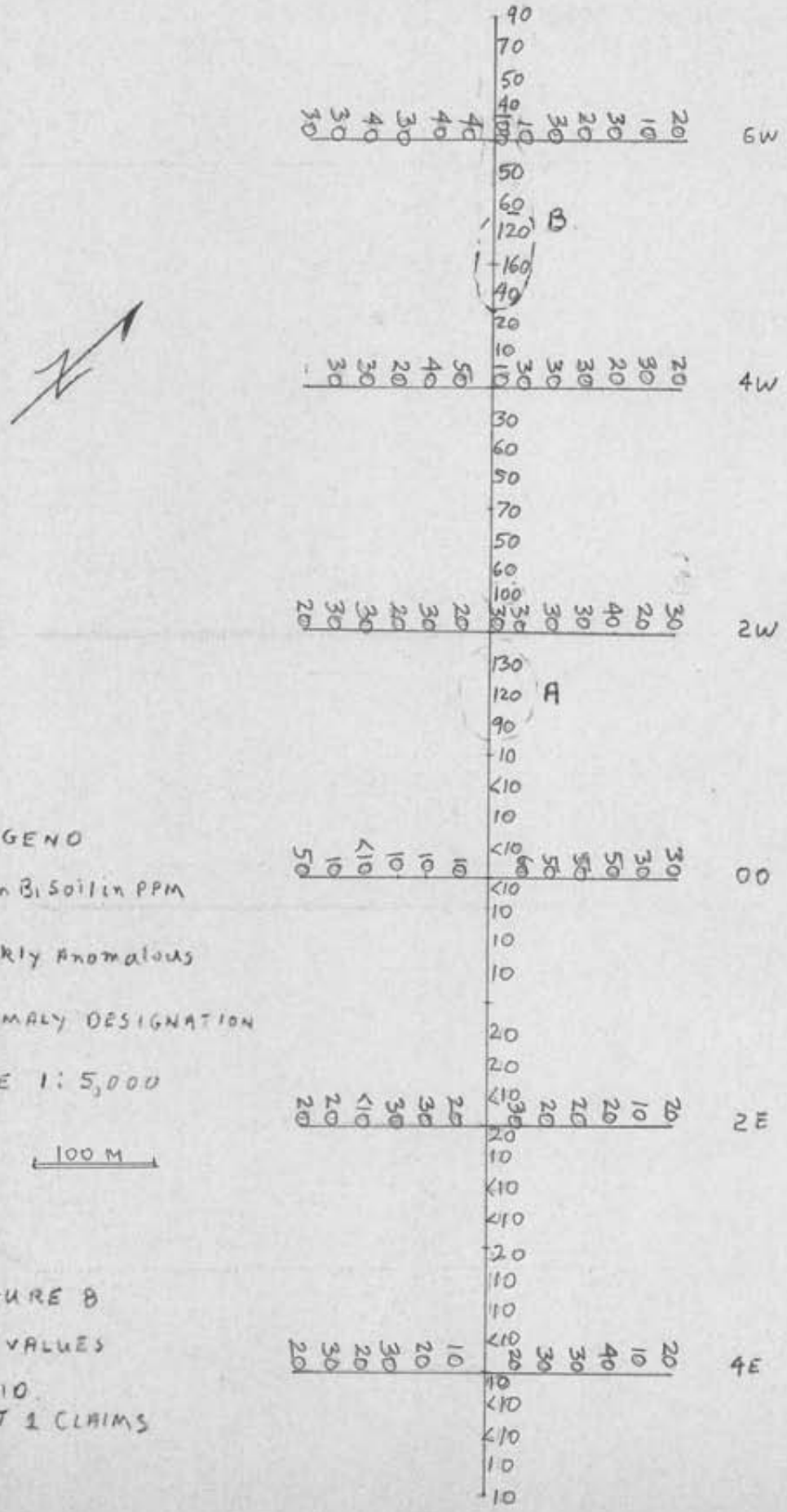
In addition to the soil samples, four rock samples were analyzed for Au and Ag. Three of these were from the dumps on the Crown grants internal to the Rit 1 claim. The samples were assayed by Loring Laboratories of Calgary. The sample descriptions and assay results are as follows:

W-3 quartz vein from talus, weak patchy secondary oxides (19559)

W-4 representative dump sample from upper adit (19554)

W-5 upper adit dump, large quartz fragments with disseminated pyrite (19555)

W-6 main dump located beside the abandoned mill (19556)



LEGEND

70 Au in B horizon in PPM

( ) weakly Anomalous

B ANOMALY DESIGNATION

SCALE 1: 5,000

100 M

FIGURE 8

Au VALUES

GRID

RIT 1 CLAIMS

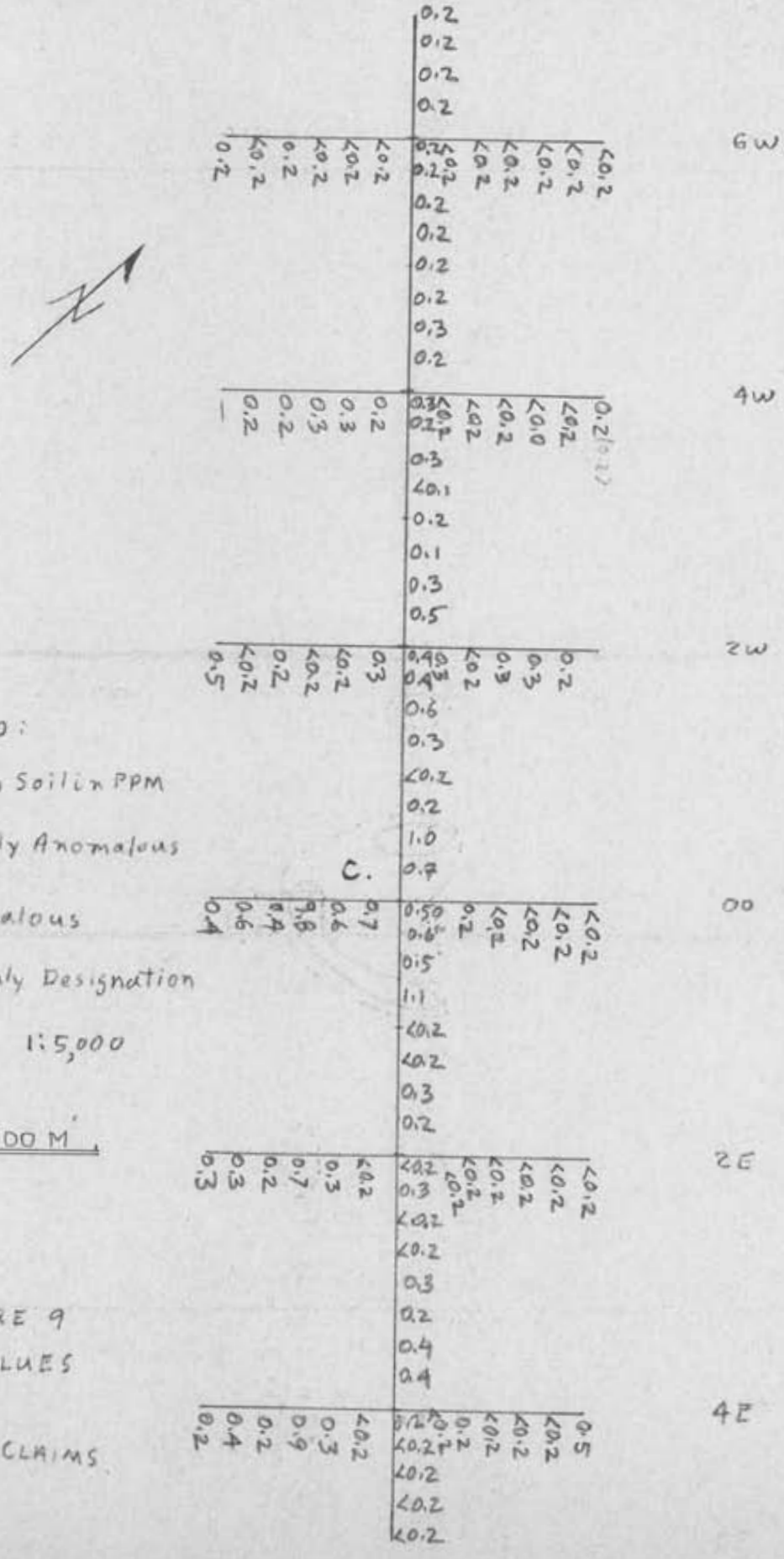
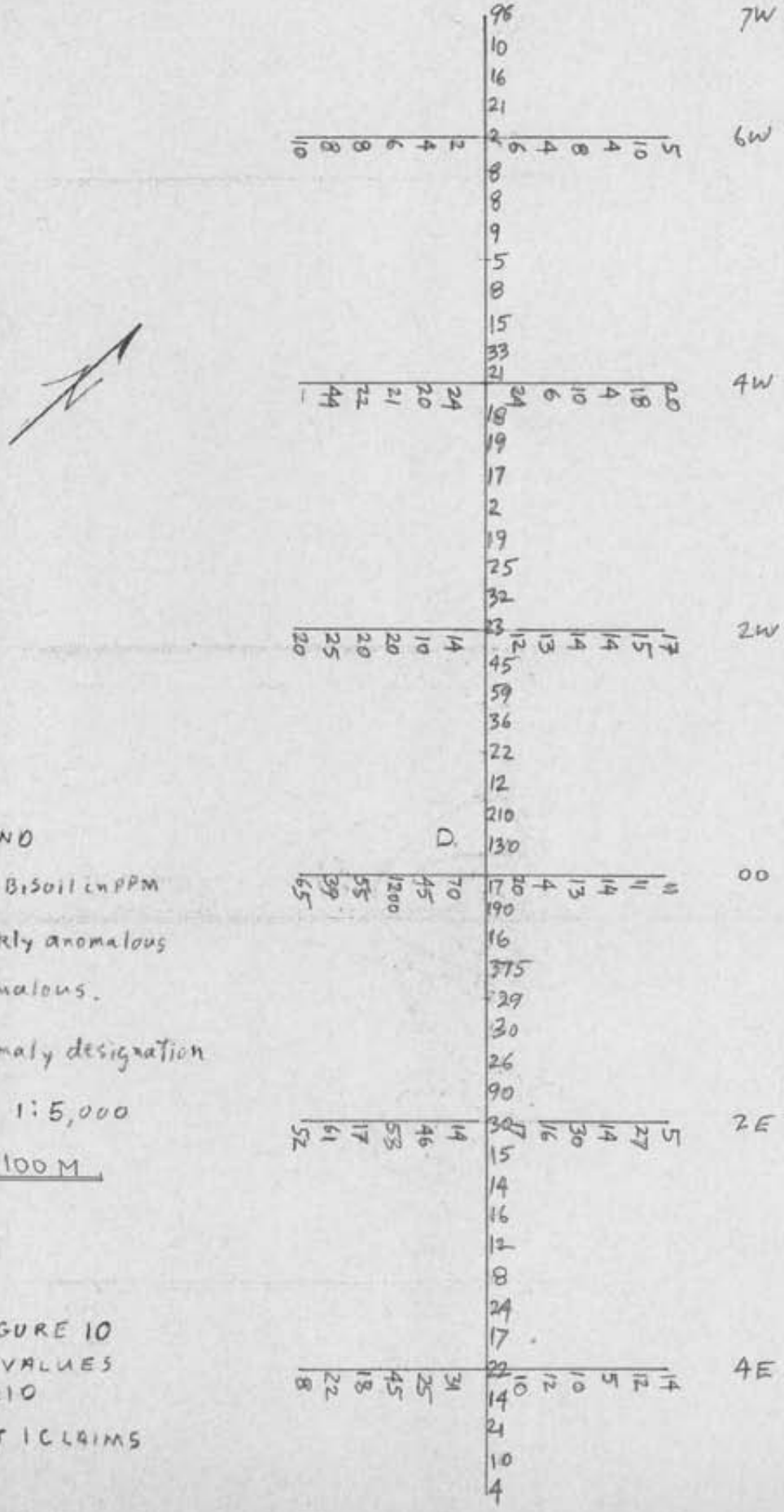


FIGURE 9
Ag VALUES
GRID
RIT 1 CLAIMS



LEGEND

14 | Pb in B Soil in PPM

Weakly anomalous

Anomalous.

D. Anomaly designation

SCALE 1:5,000

100 M

FIGURE 10
Pb VALUES
GRID
RIT 1 CLAIMS

Another thin bed of limestone in the Index formation crosses the Molly Mac property on the ridge between Bunker Hill and Gainer Creeks and is referred to as the Molly Mac limestone. It overlies the grey phyllite just described and is several hundred feet stratigraphically above the limestone and quartzite near the base of the grey phyllite. Southeast of the Molly Mac property the limestone outcrops intermittently as far as the Index basin; at the head of the basin and to the southeast it forms discontinuous lenses in complexly folded phyllite. Northwest of the Molly Mac property the limestone continues to an area of little or no outcrop southwest of the lower part of Bunker Hill Creek and does not occur to the northwest near the head of the creek.

The Molly Mac limestone on the Molly Mac property ranges from about 40 to more than 100 feet thick. It is thinly banded grey and dark-grey limestone with dark-grey argillaceous partings in the lower part. The contacts are well defined; it is underlain by several feet of green phyllite followed downward by a thick section of grey phyllite, and is overlain by olive-green phyllitic volcanic rocks containing lenses of grey phyllite near the limestone. In the Index basin near the Index workings the limestone is 50 to 60 feet thick, weathers cream coloured, and is more coarsely crystalline than at the Molly Mac. Lenses of siderite containing disseminated pyrite and locally galena and sphalerite are found at many places in the limestone.

Olive-green phyllitic volcanic rocks which overlie the Molly Mac limestone constitute the uppermost member of the Index formation. Near the limestone the volcanic rocks contain lenses of green or dark-grey phyllite a few feet thick and up to a few hundred feet long. Most of the volcanic rocks are sheared, and many are more or less replaced by rusty-weathering carbonates. Locally, in particular in the basin of Bunker Hill Creek and southeast of the Index basin just beyond the map-area, the volcanic rocks are fairly blocky and contain pillow structures. The pillows have narrow dark-green rims, and spaces between them are filled with buff to white crystalline limestone. In cross-section the pillows are oval, as much as 18 inches long and about 6 inches thick. The longest dimension is parellel to the plunge of fold axes. Pillows are not seen in the sheared and altered volcanic rocks, but small irregular lenses of whitish limestone like those between pillows in the more blocky rocks are common. It is suggested that much of the volcanic sequence above the Molly Mac limestone originally had a pillow structure. Microscopic study of the more blocky volcanic rocks shows that they are composed of very fine-grained amphibole, albite, chlorite, quartz, and somewhat coarser-grained carbonate. The original texture and composition are completely changed. Near the Molly Mac property the volcanic rocks are 500 to 800 feet thick. On the southwest side of the Bunker Hill basin they are about 400 feet thick, and in the Index basin they are very much thinner.

The total apparent thickness of the Index formation ranges from about 1,500 feet in the Index basin to about 2,500 feet in the upper part of Bunker Hill Creek.

The uppermost part of the Index formation is exposed in the core of the Silvercup anticline in the basin at the head of Triune Creek and at the Silver Cup mine. The rocks are well exposed in the Triune basin, but they are altered to carbonates, intruded by diorite, and complexly folded, and the stratigraphic relationships are uncertain. Probably the oldest rocks of the Index formation in the Triune basin are green and grey phyllites occurring immediately southwest of a strike fault on the northeast limb of the Silvercup anticline. They occur on both sides of the basin and contain a bed of buff-weathering fine-grained grey massive dolomite 50 to 100 feet thick. The dolomite lenses out on the northwest side of the basin and continues southeast beyond the map-area. Altered rocks lying southwest of the

SUMMARY OF EXPENDITURES

TROUT LAKE, BRITISH COLUMBIA
REVELSTOKE MINING DIVISION

CLAIM: RIT 2 RECORD Number 770

Time Period: September 27 to October 9, 1980

PRE-FIELD PREPARATION			$ 200.00
PERSONNEL			
Project Supervisor	.5 man days @ $350	175.00	
Senior Prospector	1.5 man days @ $140	210.00	
Junior Prospector	.5 man days @ $120	60.00	
			445.00
TRANSPORTATION & TRAVEL			
Travel expenses		200.00	
4x4 truck	1 day @ $35	35.00	
			235.00
CAMP & ACCOMMODATION			
Lodging	2.5 man days @ $10/day	25.00	
Food	2.5 man days @ $17/day	42.50	
Fuel		15.00	
Field equipment rentals and miscellaneous supplies	2.5 man days @ $15/day	37.50	
			120.00
GEOCHEMICAL ANALYSES			
18 soil samples analyzed for Au, Pb, Ag, An	@ $7.50/sample	135.00	
2 stream silt samples analyzed for Au, Cr, Co, Cu, Fe, Pb, Mn, Ni, Ag, Va, Zn, As	@ $12/sample	24.00	
			159.00
MISCELLANEOUS			
Maps, publications; reproductions		20.00	
Telephone and Freight		20.00	
			40.00
POST-FIELD COMPILATION			
Report Writing		500.00	
Drafting and secretarial		100.00	
			600.00
		SUB-TOTAL	$ 1,799.00
ADMINISTRATION @ 10%			179.90
		TOTAL	$ 1,978.90

APPENDIX I

CHAPTER II.—GENERAL GEOLOGY

The Ferguson area contains a thick sequence of highly deformed sedimentary and volcanic rocks intruded locally by small masses of diorite. The sedimentary and volcanic rocks were divided by Walker and Bancroft (1929) into the Hamill series, Badshot formation, Lardeau series, and Milford group. The Hamill series, the oldest, is dominantly quartzitic, the Badshot is limestone, and the Lardeau series includes phyllite, quartzite, grit, pyroclastic and flow rocks, and minor limestone. These three units were regarded as part of a thick conformable succession unconformably overlain by limestone, chert, and argillite of the Milford group.

The Hamill and Lardeau series, which are primarily lithological units, are called the Hamill and Lardeau groups in the present report. The groups have been subdivided into formations. Several formations are well-defined units with distinctive lithologies; others are poorly defined and contain thick and varied sequences not readily subdivided. Some formations, particularly those containing volcanic rocks, change facies rapidly. The formations have been named because they are useful map-units within the area, and several have been recognized well beyond the map-area. It is hoped they will be of value in geological studies of other sections of the Kootenay arc. The formations are given in the following table.

Table of Formations

Group	Formation	Lithology
Mafic intrusives.		Mainly diorite.
Milford.		Slate, argillite, chert, limestone, and pebble conglomerate.
Stratigraphic relationship not established within the map-area.		
Lardeau.	Broadview.	Grey and green grit and phyllite; minor pebble conglomerate and pyroclastic rocks.
	Jowett.	Mafic lavas, pyroclastic rocks, argillite, minor limestone.
	Sharon Creek.	Dark-grey to black siliceous argillite; slate, phyllite, and minor grit.
	Ajax.	Massive grey quartzite.
	Triune.	Grey to black siliceous argillite.
	Index.	Dark-grey and green phyllite; dark-grey argillite; minor limestone and volcanic rocks.
Probable conformity—relationship uncertain in map-area.		
	Badshot. (Lade Peak.)	Grey limestone. (Grey limestone and argillaceous limestone.)
Apparent conformity—relationship uncertain in map-area.		
Hamill.	Mohican.	Dark-grey and green phyllite; minor limestone.
	Marsh-Adams.	Grey, brown, and white quartzite; micaceous quartzite; minor phyllite.
	Mount Gainer.	White to pinkish quartzite.
Base not exposed.		

The present study has been principally of the Lardeau group. Although the Lardeau group has been known for many years and is widely distributed in the Kootenay arc and to the north (*see* Reesor, 1957b; Rice, 1941; Okulitch, 1949), little is known of the internal stratigraphy of the group. Areas containing the Lardeau group are structurally complex, and the structural complexities have confused stratigraphic studies which heretofore have been mainly of a reconnaissance nature.

than, the Badshot limestone. The Lade Peak and the Badshot limestones occur northeast of the Lade Peak anticline on the limbs of a complex syncline containing dark-grey and black phyllites without distinctive markers or structural features by which the form of the syncline can be readily determined. On the southwest limb of the syncline the Lade Peak limestone is overlain by a few hundred feet of green phyllite with a thin bed of limestone and another of quartzite near the top (*see* p. 20). These distinctive rocks are not found on the northeast limb of the syncline adjacent to the Badshot limestone. The contact of the Badshot limestone with the dark-grey phyllites to the southwest is strongly sheared and may represent a fault with considerable displacement. Despite these uncertainties the Lade Peak limestone is tentatively considered to be the equivalent of the Badshot. Alternatively, the Lade Peak limestone may be a relatively great distance stratigraphically above the Badshot and not repeated northeast of Lade Peak.

LARDEAU GROUP

The Lardeau group was defined by Walker and Bancroft (1929, p. 11) from the Lardeau district in which it is widely exposed. It includes a great thickness of sedimentary and volcanic rocks between the Badshot formation and the Milford group. The Lardeau group continues beyond the Lardeau area and has been mapped along Kootenay Lake (*see* Rice, 1943; Reesor, 1957a). Everywhere it is highly deformed and locally it is intensely metamorphosed. Details of the structure and stratigraphy of the Lardeau group as a whole had not been studied before the present work in the Ferguson area. In this work the Lardeau group has been subdivided into formations (*see* Table of Formations) which have been traced for several miles along strike within the map-area and are found in both the northeastern part of the area and on the Silvercup anticline. Parts of some formations change facies within the map-area, both parallel to and across the formational strike. Although it is uncertain how far details of the stratigraphy extend, the Lardeau group as a whole and a few distinctive formations within it are recognized in other places in the Kootenay arc.

Index Formation

The oldest rocks in the Lardeau group are members of the Index formation, named from exposures in the basin of Index Creek, a northwesterly flowing tributary of Gainer Creek. The Index formation consists of a thick sequence of grey and green phyllite and dark-grey argillite together with thin bands of limestone, argillaceous limestone, and volcanic rocks. The formation outcrops in a folded belt more than 2 miles wide southwest of Badshot and Mohican Mountains, and the upper part is exposed in the basin of Triune Creek in the core of the Silvercup anticline.

The formation is best known from exposures in the folded belt southwest of Badshot and Mohican Mountains. It consists of green phyllite, overlain by grey phyllite and dark-grey argillite. Thin lenses of limestone are found near the base and at the top of the grey phyllite. The uppermost limestone is overlain by phyllitic green volcanic rocks, the highest member in the Index formation. The volcanic rocks are overlain conformably by the Triune formation.

The Index formation is isoclinally folded about northwesterly trending axes with low plunge. Individual members are repeated several times across the belt between Badshot and Mohican Mountains and the valleys of Bunker Hill and Index Creeks. The Lade Peak limestone occupies the cores of five isoclinal anticlines (*see* Fig. 3), and the Index formation, which overlies the limestone, is contained in the intervening synclines and forms a more or less homoclinal succession only southwest of the Silver Chief anticlines.

Green phyllite, the basal member of the Index formation, overlies the Lade Peak limestone. The contact is well defined and commonly sheared or tightly folded. The green phyllite occurs on both limbs of the Lade Peak anticline, where it is a few hundred feet thick, and outcrops widely to the southwest as far as Index and Bunker Hill Creeks. It appears to thicken toward the southwest and has not been found adjacent to the Badshot limestone on Badshot and Mohican Mountains. The green phyllite has a strong but somewhat irregular cleavage. Beds are not commonly visible, but where seen they are a fraction of an inch thick and tightly crenulated. Study of thin-sections shows the principal minerals to be quartz, muscovite, and chlorite. Narrow lenticular bands of grey and greenish-grey phyllite, which lack chlorite, are fairly abundant.

The green phyllite is overlain by grey and dark-grey phyllite and argillite. The grey phyllite and argillite occupies most of a synclinal trough between the Lade Peak anticline and Badshot and Mohican Mountains. Northwest of Gainer Creek it is repeated in another synclinal trough southwest of the Lade Peak anticline, but it does not continue on strike southeast of the creek. The grey phyllite is repeated again in the upper part of Bunker Hill Creek and on the ridge between Bunker Hill and Gainer Creeks (*see* Fig. 2). The rocks immediately southwest of Badshot and Mohican Mountains are dark-grey to black phyllites and argillites with lenses and beds of limy argillite and platy limestone a few tens of feet thick. The argillite is commonly silty, and characteristically contains clear quartz grains which are visible with the aid of a hand-lens. Southwest of the Lade Peak anticline the grey phyllites are similar to those just described, but in general they are lighter grey, fined grained, and contain essentially no limy beds. In the upper part of Bunker Hill Creek, grey to black phyllite is several hundred feet thick and on the southwest is interbedded and infolded with green phyllite. To the southeast along Index Creek it grades into green phyllite. Thin-sections reveal that the grey phyllite differs from the green only in the content of carbonaceous material.

The contact of the grey phyllite with the underlying green phyllite is not well defined, but locally a bed of grey limestone and another of brownish quartzite occur near the contact. The limestone and quartzite are well exposed on the northeast limb of the Lade Peak anticline. The limestone averages a few tens of feet thick, but north of Lade Peak it is more than 100 feet thick, near Gainer Creek it pinches out, and to the southeast of Gainer Creek it occurs only as lenses. The limestone is grey and dark grey and contains narrow interbeds of grey and locally green phyllite. It is overlain by about 100 feet of grey and green phyllite which in places contains lenses of brownish quartzite and grades up into a few tens of feet of this quartzite. The quartzite is mainly composed of rounded grains of quartz that are commonly 1 to 2 millimetres in diameter and, in the coarser varieties, as much as 4 millimetres in diameter. Visible grains of feldspar give the rock a porphyritic appearance. Minor amounts of muscovite, iron oxides, and carbonates are present. The quartzite occurs in lenticular beds a few feet thick that change rapidly in thickness and grain size along strike.

Neither the quartzite nor the underlying limestone is found on the southwest limb of the Lade Peak anticline, but the limestone and thin lenses of fine-grained brownish quartzites are repeated about 3,000 feet southwest of Lade Peak. The limestone pinches out near Gainer Creek and has not been found to the southeast. Farther to the southwest a lens of quartzite near the contact of the green and the grey phyllite is exposed on the ridge between Bunker Hill and Marsh-Adams Creeks. It weathers white, is brownish on fresh surfaces, and contains many quartz veinlets. The lens is 15 to 20 feet thick and extends for about 1,000 feet along strike on the top and down both sides of the ridge.

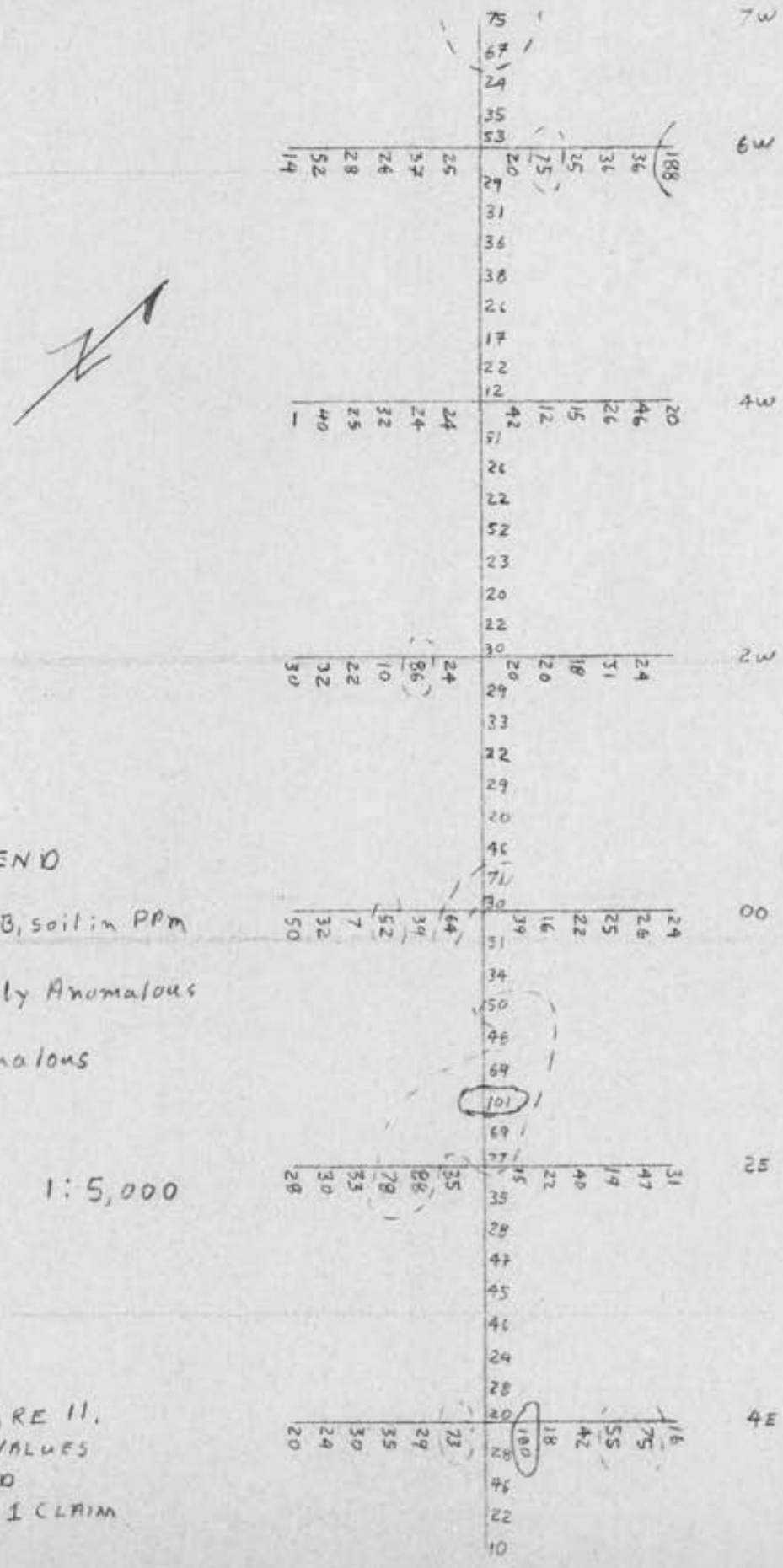
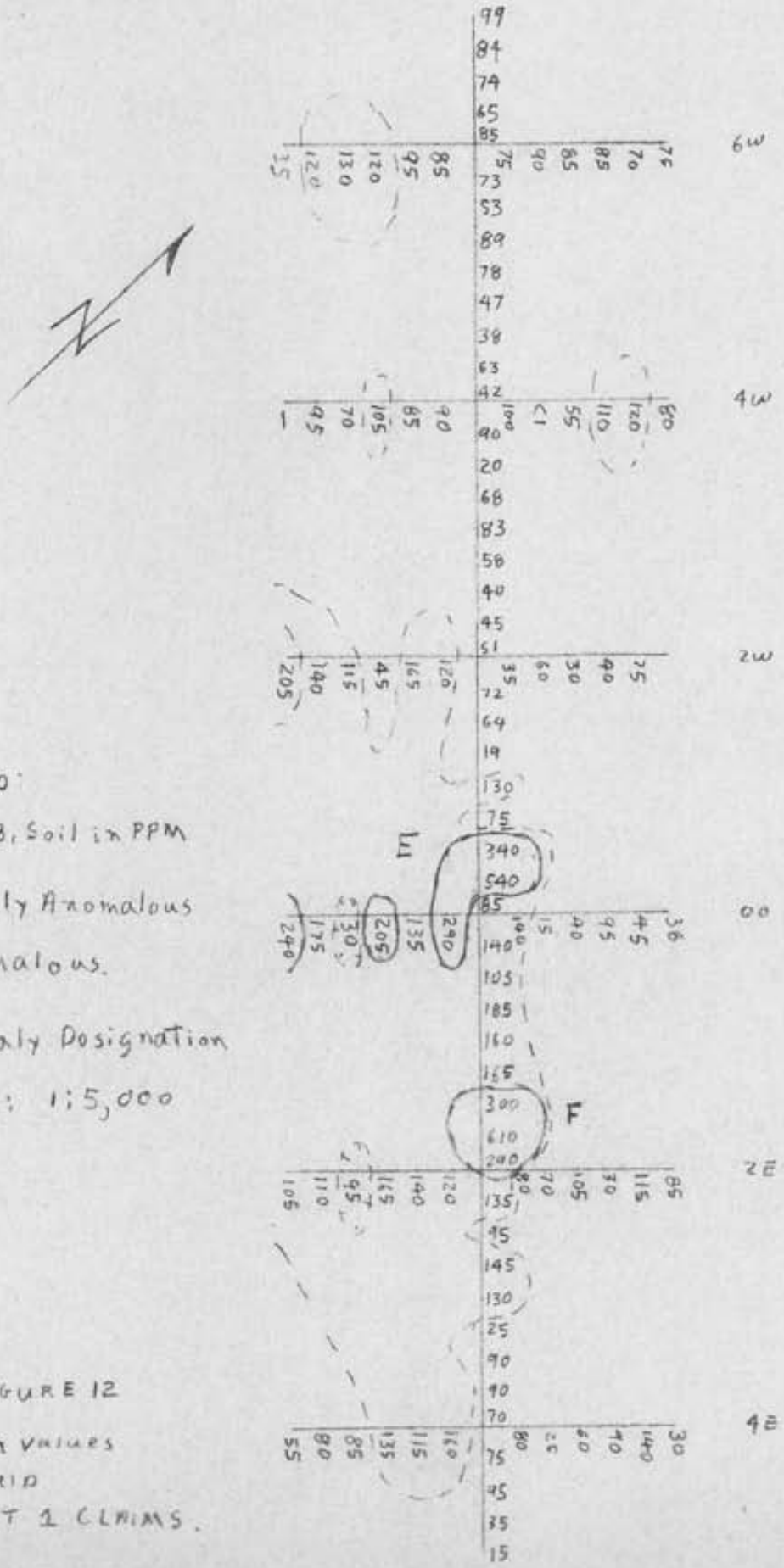


FIGURE 11.
Cu VALUES
GRID
RIT 1 CLAIM



LEGEND:

58 Zn in B. Soil in PPM

Weakly Anomalous

Anomalous.

F. Anomaly Dosignation

Scale: 1:5,000

FIGURE 12

Zn VALUES

GRID

RIT 1 CLAIMS.

Assay Number	Sample Number	Au (oz/ton)	Ag (oz/ton)
19559	W-3	trace	0.16
19554	W-4	0.090	0.36
19555	W-5	0.030	0.06
19556	W-6	0.040	0.18

The samples were primarily taken to confirm that the original veinS worked actually contained gold values and to ascertain if any residual values are present in the dumps.

Workings on the Winslow vein system are badly caved and heavily drift-covered in the areas examined. The reported widths and extent of veins could not be confirmed by the brief surface examination.

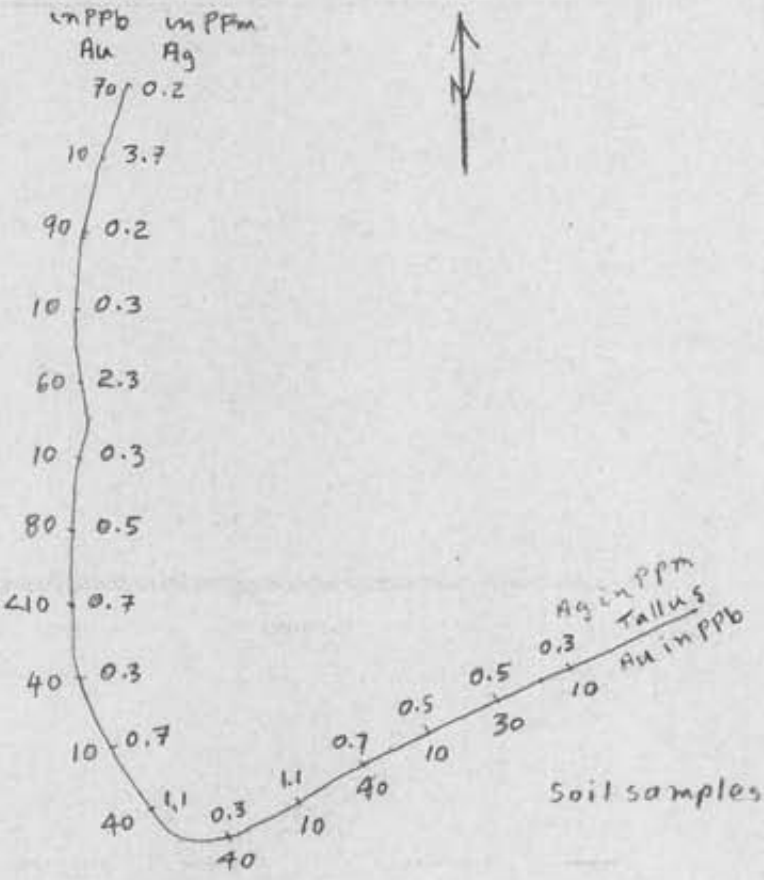
Rit 2 Claim

Soil samples were collected on the Rit 2 claim along a reconnaissance traverse as indicated on Figure . A total of 18 soil samples were collected along with two stream silt samples. The soil samples were analyzed for Au, Ag, Cu, Pb, and Zn. The silt samples were analyzed for Au and As and 10 elements by ICP plasma method. The results for the silt samples have not yet been received from the laboratory, Geo Analytical Services (Western) Ltd.

The soil sample results are presented on Figures 13 to 15. Samples were collected from above an old access trail from poorly developed B_1 horizon at 50-metre intervals.

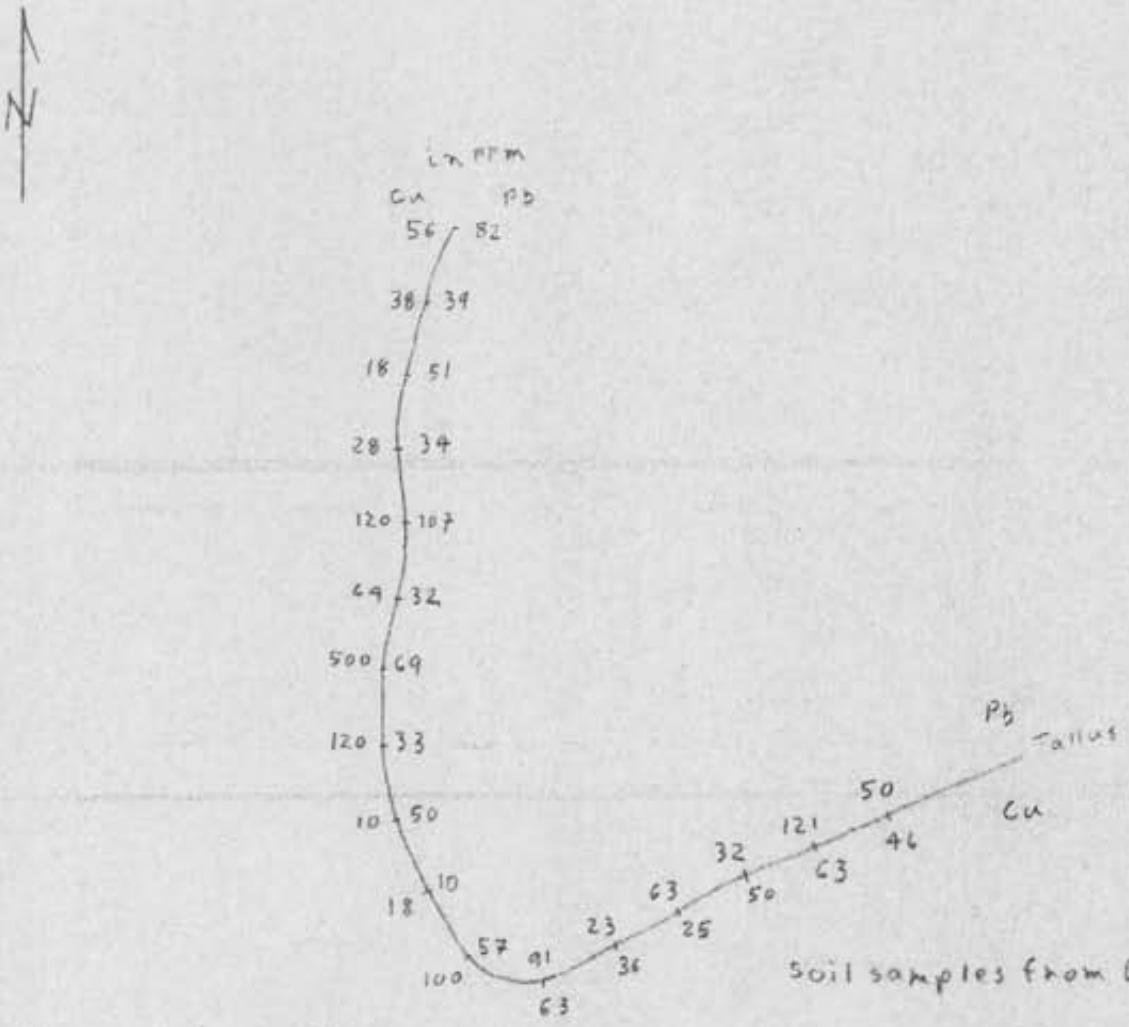
Some scattered anomalous values are evident in the results. Two anomalous Ag values (3.7 and 2.3 ppm) are present. None of the Au values can be considered anomalous. Cu values are anomalous for at least four adjacent sample sites with a maximum value of 500 ppm. Two anomalous Pb values (107 and 121 ppm) are present. None of the Zn values can be considered anomalous.

In addition to the soil samples, one rock sample was collected (Figure 7) near the east boundary of the claim. This sample was collected from



See Figure 6 for location

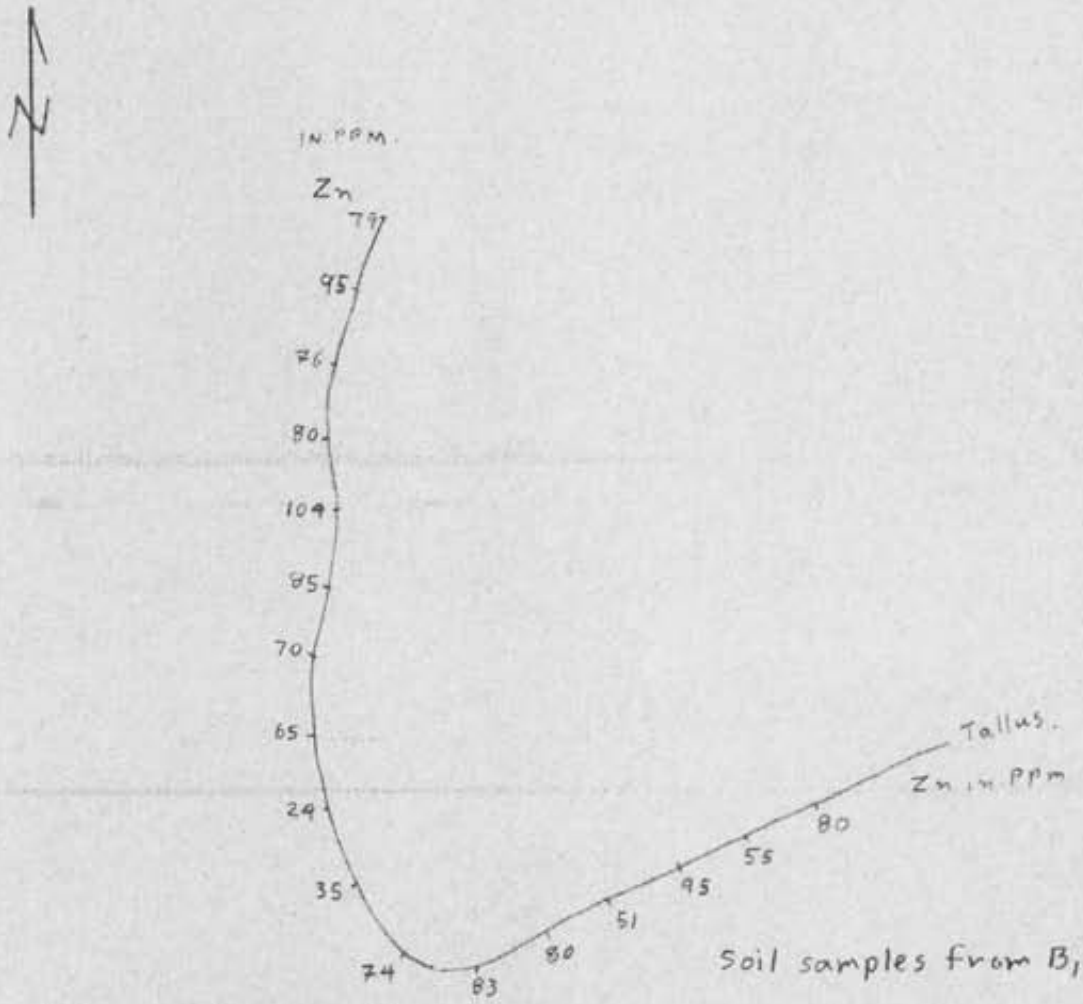
FIGURE 13
RIT 2 CLAIMS
RECONNAISSANCE SOIL SAMPLES
Au and Ag Values
SCALE 1:5,000



See Figure 6 for location

FIGURE 14
R/T 2 CLAIMS
RECONNAISSANCE SOIL SAMPLES
Cu and Pb Values

SCALE 1:5,000



Soil samples from B_1 horizon

See Figure 6 for Location

FIGURE 15

RIT 2 CLAIMS

RECONNAISSANCE SOIL SAMPLES

Zn values

SCALE 1:5,000

a wide, apparently barren quartz vein. The sample consists of random chip over a width of 20 metres. The assay returned:

Assay Number	Sample Number	Au (oz/ton)	Ag (oz/ton)
19561	W-7	trace	0.64

CONCLUSIONS AND RECOMMENDATIONS

General

The following general observations were made by J. F. V. Millar, P.Eng., in his 1963 report on the Winslow, Okanagan-Enderby, and Alice vein systems:

> The properties and in particular the veins have never been subjected to any analytical geological work. No geological study has been made of the various openings that might answer some of the more obvious pertinent questions concerning distribution of values, origin of values, etc. No surveying has ever been done to connect any underground work. There has been no diamond drilling to investigate either values, distribution, or structure.
>
> The structure on which the major amount of work has been done and with the greatest potential is the Winslow vein. The Okanagan-Enderby and Alice veins could contribute some high-grade to a mill but offer little indication that they could sustain a milling operation by themselves.

The present writer is in agreement with Millar. Exploration of the veins in the past has been characterized by a virtual complete lack of consistent planning and development. Early interest in the veins was directed only to the high-grade ore shoots which constituted "direct-shipping" ore. The transportation infrastructure in the early part of the century and the economics of the day made exploration of lower grade parts of the vein systems financially unattractive. As a consequence, very little is known about the distribution of grades along strike in the various veins. The high-grade ore shoot in the Winslow vein is known to extend 40 feet along strike, but it is quite likely that grades which are currently of economic interest may extend further.

Exploration Approach

Due to their steep dips, the majority of veins on the properties constituting the Winslow Gold Project should be amenable to exploration by VLF-EM techniques. Ground electromagnetic surveying, combined with detailed soil geochemistry, should prove to be effective in tracing known

veins in areas covered by overburden, or in finding new veins that the 'old timers' had no way of locating. Although early interest in many of the veins in the camp was directed to high-grade ore shoots, mineralized zones of lower grade may have substantial continuity along strike in many of the vein structures. With today's high prices for precious metals, it should be possible to outline much larger mineable tonnages than was economically feasible at the turn of the century.

On the Rit 1 claim, the limited grid sampling indicated that the technique may have some merit. Detailed evaluation of the results should be conducted prior to a more widespread utilization of this method.

To ascertain if the Winslow vein system extends into the Rit 1 claim will require a relatively costly exploration program. Such a program should include road building (for access), cat stripping (to expose the vein), and possibly re-opening the old workings. Diamond drilling may be used to explore the vein system for ore shoots. Without considerable further work, it is impossible to assess the economic potential of the vein system.

On the Rit 2 claim, the limited work indicated a possible geochemical anomaly with Cu and some precious metals values. The evaluation of the Rit 1 anomalies will give the data-base necessary to consider if further detailed geochemical testing of the Rit 2 claim is warranted.

SUMMARY OF EXPENDITURES

TROUT LAKE, BRITISH COLUMBIA
REVELSTOKE MINING DIVISION

CLAIM: RIT 1 RECORD Number 769

Time Period: September 27 to October 9, 1980

PRE-FIELD PREPARATION			$ 250.00
PERSONNEL			
Project Supervisor	0.5 man days @ $350	175.00	
Senior Prospector	3.0 man days @ $140	420.00	
Junior Prospectors	3.0 man days @ $120	360.00	
			955.00
TRANSPORTATION & TRAVEL			
Travel expenses		200.00	
4x4 truck	2 days @ $35/day	35.00	
			235.00
CAMP & ACCOMMODATION			
Lodging	6.5 man days @ $10/day	65.00	
Food	6.5 man days @ $17/day	110.50	
Fuel		30.00	
Field equipment rentals and miscellaneous supplies	6.5 man days @ $15/day	97.50	
			303.00
GEOCHEMICAL ANALYSES			
≈100 soil samples analyzed for Au, Pb, Ag, An	@ $7.50/sample	750.00	750.00
MISCELLANEOUS			
Maps, publications; reproductions		20.00	
Telephone		10.00	
Freight		20.00	
			50.00
POST-FIELD COMPILATION			
Report writing		500.00	
Drafting and secretarial		200.00	
			700.00
		SUB-TOTAL	$ 3,278.00
ADMINISTRATION @ 10%			327.80
		TOTAL	$ 3,605.80

green and grey phyllites comprise the youngest member of the Index formation this part of the area. They are dominantly green phyllites containing sheared a angular fragments commonly up to half an inch across. Thin-sections show that t fragments are mainly of volcanic rock including mafic amygdaloids and porphyri The main constituents are chlorite, actinolite, epidote, and albite. These rocks a overlain by the Triune formation.

Triune Formation

The Triune formation, overlying the Index formation, occurs in the nort eastern part of the map-area and on the Silvercup anticline. The formation, nam from Triune Peak, is the principal rock in the core of the Silvercup anticline and extensively exposed between Triune Peak and Five Mile Creek. . In the northeaste part of the map-area it forms a more or less continuous band along the southwe side of the valleys of Bunker Hill and Index Creeks.

The formation is characteristically blocky grey to black siliceous argilli Where sheared it is siliceous slate or phyllite. Very siliceous rocks resembling gr cherts are found in the formation at a number of places on the Silvercup anticlir

In the northeastern part of of the area the Triune formation is composed mair of dark-grey to black siliceous argillite. Fresh surfaces are commonly coated wi rust from the weathering of disseminated pyrite, and below the glacier on the sout west side of Bunker Hill Creek the Triune formation forms impressive rusty clif Locally, areas a few inches across are coated with a blue copper stain. Vague bec parallel to joints, range from about one-half to 2 inches thick and are commor obscured by cleavage. Near the top of the formation in the northeastern part of t area is a soft, grey to purplish-brown silty argillite with well-marked beds a fracti of an inch to as much as a foot thick. Southwest of Bunker Hill Creek a 10-fc bed of conglomerate containing angular fragments of argillite in a sandy and si matrix is interbedded with the soft argillite. Soft argillite is found also in the Aj mine near the crest of the Silvercup anticline, but it has not been recognized el: where in the area.

The Triune formation varies greatly in thickness in the northeastern part the area. On the northwest side of Gainer Creek it is more than 1,000 feet thi but thins rapidly to the southeast, pinching out entirely in the cliffs north of Redcl Peak and thickening again to a few tens of feet at the southeast edge of the ma area. Northwest of Gainer Creek it is a few hundred feet thick. The upper s argillite is as much as 75 feet thick below the glacier southwest of Bunker Hill Cre and thins markedly to the northwest and southeast. Southeast of Gainer Cre it is found only locally.

On the Silvercup anticline the Triune formation consists of grey and dark-gr siliceous rocks ranging from argillite to slate and phyllite; in places it includes ve siliceous grey cherty rocks. Most of the formation on the anticline has a mo or less well-defined cleavage. Slate and phyllite are common near the Silver C mine and in the Triune basin. Thin-sections of phyllite from near the Silver C mine reveal extremely fine-grained quartz and small amounts of sericite and carbor ceous matter. Rusty siderite metacrysts are common near the mine, and to t southeast the phyllite is almost entirely altered to a rusty mass of siderite, muscovi and chromian mica. Very siliceous grey cherty rocks occur in the Triune formati on the northeast limb of the Silvercup anticline on both sides of the Triune ba and near the crest of the anticline near Five Mile Creek. The cherty rocks ha irregular beds marked by poorly defined joints 1 to 2 inches apart.

Apparently complete sections of the Triune formation on the Silvercup anticline are found only on the southwest limb between the Silver Cup mine and Triune Peak. In this locality the formation is somewhat more than 1,000 feet thick.

Ajax Formation

The Ajax formation is a distinctive grey quartzite named from exposures near the Ajax mine northeast of Ferguson. Although it has been named only during the present work, the quartzite was recognized as a distinctive rock type by Walker and Bancroft (1929, p. 12) and was known as the Cromwell dyke in the early days of prospecting. At the Ajax mine the quartzite is near the crest of the Silvercup anticline, and to the southeast it outcrops as two divergent bands on the limbs of the anticline. In the northeastern part of the area the quartzite forms a band of variable width southwest of the Triune formation and has been traced from the head of Marsh-Adams Creek to the head of Stevens Creek southeast of the map-area.

Typically, the Ajax formation is massive grey quartzite with beds ranging from a few inches to several tens of feet thick. Locally the quartzite has interbeds of dark-grey to black argillite a few inches to several feet thick. The quartzite is commonly cut by irregular branching white quartz veins. In general the base of the Ajax quartzite is well defined, but in the northeastern part of the area a few beds of quartzite are found in the uppermost part of the Triune formation.

In the northeastern part of the area the quartzite is mainly massive and blocky, but in some sections several feet of thin-bedded quartzite with dark-grey argillaceous partings are present. Thin-bedded rocks have a poorly developed cleavage, dipping steeply to the southwest, and most of the quartzite has joints parallel to bedding planes. Blocky quartzites in places contain rounded limy concretionary masses composed of grey to brownish quartzite with a limy cement. In some localities these are 1 to 3 inches in diameter; in others, 8 to 10 inches in diameter. On the northwest side of Marsh-Adams Creek conglomerate a few feet thick containing rounded cobbles a few inches across occurs in the Ajax quartzite. The quartzite is more than 2,000 feet thick along Gainer Creek, but has been thickened by folds and obscure strike faults. It thins rapidly upward to a few feet in exposures in upper Bunker Hill Creek, and pinches out entirely to the southeast in cliffs north of Redcliff Peak.

On the southwest limb of the Silvercup anticline the Ajax quartzite has a lower part as much as 200 feet thick in which beds are a few feet thick and argillaceous interbeds are common. It is overlain by massive quartzite, becoming flaggy toward the top. Very few argillaceous beds occur in the quartzite on the northeast limb. The Ajax quartzite is commonly about 600 feet thick on the southwest limb of the Silvercup anticline and less than 200 feet thick on the northeast limb. Near Five Mile Creek and southeast of Triune Creek it pinches out entirely.

Sharon Creek Formation

The Sharon Creek formation, named from exposures near the head of Sharon Creek, conformably overlies the Ajax quartzite. It occurs on the Silvercup anticline and is well exposed on the southwest limb along the Tenmile road near Six Mile Creek. In the northeastern part of the area it has been traced from the northeast slopes of Mount Jowett southeastward around the northeast slopes of Spine Mountain and Redcliff Peak to the head of Stevens Creek beyond the map-area. On the Silvercup anticline the Sharon Creek formation is overlain by the Broadview formation and in the northeastern part of the area by the Jowett formation.

The Sharon Creek formation is dominantly dark-grey to black siliceous argillite, argillite, slate, and phyllite. Locally it contains lenses of argillaceous limestone

and beds of grey quartzite and pebble conglomerate. In general the Sharon Creek closely resembles the Triune formation, and beds of grey quartzite are very similar to parts of the Broadview group.

In the northeastern part of the area the Sharon Creek formation is mainly dark-grey to black siliceous argillite. It commonly resembles bedded chert and has more or less well-defined bedding planes one-half to 2 inches apart, in places marked by thin phyllitic partings. The uppermost part of the formation consists of black argillite, which is less siliceous, poorly bedded, and commonly is strongly cleaved. Where bedding and cleavage are both present, the argillite has a pronounced lineation and breaks into rod-like fragments. On the northern slopes of Redcliff Peak, lenses of grey limestone a few inches thick and about a foot long, and less commonly beds of limestone 2 to 3 feet thick, occur in siliceous argillite of the Sharon Creek formation. On the northwest side of the upper part of Marsh-Adams Creek a 6-foot bed of conglomerate is interbedded with argillite in the upper part of the formation. The formation ranges from about 200 feet to a little more than 1,000 feet thick in the northeastern part of the area.

The Sharon Creek formation is well displayed on the southwest limb of the Silvercup anticline. As in the northeastern part of the area, the lower part, somewhat more than half the total thickness, is dominantly siliceous dark-grey to black argillite, and the upper part is less siliceous. The siliceous argillite is commonly phyllitic and grades up into slaty argillite with interbeds of grey grit up to several feet thick. The grit contains rounded black quartz grains about 1 millimetre in diameter. Between Five Mile and Six Mile Creeks a few beds of conglomerate are found. They contain rounded and angular tabular fragments up to one-half inch thick and 2 inches long, mainly of grey siliceous argillite and less commonly of green phyllite.

On the northeast limb of the Silvercup anticline, the Sharon Creek formation is discontinuous and sliced by strike faults. It is mainly black siliceous argillite and commonly is strongly sheared and crushed.

On the southwest limb of the Silvercup anticline through most of the map-area the Sharon Creek formation is about 800 feet thick. Northwest of Five Mile Creek it appears to thin rapidly and to pinch out entirely on the slopes of Ferguson Creek northwest of the Nettie L mine.

Jowett Formation

The Jowett formation occurs only in the northeastern part of the map-area. The formation is composed mainly of volcanic rocks, which form many of the highest peaks in the district. Within the map-area the Jowett formation occurs on the summits and upper southwest slopes of Mount Jowett, Spine Mountain, and Redcliff Peak; beyond the map-area it forms the upper parts of Mount Pool to the northwest and Mount Wagner to the southeast. Between Ferguson Creek and Gainer Creek the formation has three distinct members—a lower member composed of flow rocks, a middle member of mixed sedimentary rocks, and an upper member of volcanic breccia. Southeast of Gainer Creek the three members are not readily distinguished.

On Mount Jowett the lower member is composed of green commonly amygdaloidal volcanic rock overlain by and grading upward into volcanic breccia. The rocks are blocky and form spectacular cliffs on the northwest, northeast, and southeast sides of Mount Jowett. A poor stratification seen in the cliffs from a distance, although difficult to see at close range, apparently represents individual flows 10 to 20 feet thick, with vague flow banding and scoriaceous margins. In outcrops, vague wavy epidote-rich layers are seen to be somewhat parallel to purplish, discontinu-

ous, highly amygdaloidal layers. The blocky flow rocks are at least 1,000 feet thick and grade upward into somewhat sheared pillow lavas and fragmental volcanic rocks. On Mount Jowett, rocks of the lower member lie conformably on black argillite of the Sharon Creek formation and are in fault contact with the middle member.

Southeast of Mount Jowett, on Spine Mountain and the northwest slope of Gainer Creek, the lower member of the Jowett formation is composed mainly of pillow lavas and fragmental volcanic rocks. The pillow lavas are well displayed near the head of Glacier Creek, a creek flowing southeast into Gainer Creek about 1¾ miles northeast of Tenmile. The pillows are ellipsoidal and commonly are 6 inches to 1 foot thick and 1 to 2 feet long, but some are as much as 2 feet thick and 4 feet long (*see* Plate XIII). They are marked by a fine-grained dark-green margin and concentric bands of amygdules extending into the centre of the pillows. Interpillow spaces are filled with white to buff crystalline limestone. Pillows are displayed best where the rocks are not strongly sheared. On Spine Mountain most of the lower member of the Jowett formation is green phyllite that contains small irregular lenses of whitish to buff limestone. The phyllite is regarded as sheared pillow lava and locally contains recognizable pillow structures. Fragmental volcanic rocks are interlayered with the pillow lavas. Most commonly they are phyllitic, with vague angular light-green fragments up to 2 inches across in a somewhat darker-green matrix. Rocks containing well-defined, rounded, commonly amygdaloidal fragments a few inches across are found locally and are usually less sheared (Plate VIII). Such rocks are well displayed in outcrops in the glacier on the northeast slope of Spine Mountain.

Southeast of Gainer Creek the lower member of the Jowett formation contains phyllitic fragmental volcanic rocks and green phyllites with limy lenses, and in general is similar to the lower Jowett northwest of the creek. It is in sharp and apparently conformable contact with the underlying Sharon Creek formation and grades upward into the middle member of the Jowett formation. On Redcliff Peak the lower Jowett is relatively blocky green fragmental volcanic rock; no pillow lavas were found in the part of the formation mapped.

Thin-sections of the lower member of the Jowett formation show that the rocks are completely recrystallized. Epidote, chlorite, actinolite, and plagioclase are the principal constituents; carbonates and quartz are present locally. Very fine-grained epidote predominates in the more blocky rocks; actinolite and chlorite are abundant in the phyllitic rocks. Plagioclase identified as oligoclase is mostly very fine-grained and rarely occurs as poorly formed porphyroblasts. Actinolite is in fine needles and locally forms pseudomorphs after pyroxene and is itself altered to chlorite. Amygdules are mainly epidote and chlorite and less commonly quartz and calcite.

The middle member of the Jowett formation is a mixed assemblage of sedimentary rocks of both volcanic and non-volcanic derivation. The member contains occasional thin lenses of limestone and comprises mainly brownish, greyish, and locally greenish tuff, lapilli-tuff, argillite, and volcanic breccia with some fragments of limestone and some limy cementing material. The thickness and lithology vary considerably along strike.

On the southeast side of Ferguson Creek and the southwest slopes of Mount Jowett the middle member of the Jowett formation is composed of lenses of buff-weathering grey limestone and green, somewhat limy phyllite. It is strongly sheared and tightly folded and has a wide rusty fault zone on the northeast side. At the head of Finkle Creek the middle member appears to be more than 1,000 feet thick

and contains a variety of rock types. Discontinuous lenses of buff-weathering limestone a few tens of feet thick at the top of the member are underlain by grey to brown argillite, tuffaceous argillite, and breccia. Lower in the section a striking bed of conglomerate and breccia a few hundred feet thick contains rounded and angular fragments, some of which are very large, scattered in a grey argillaceous matrix. Rounded fragments a few inches to a foot across are of dark-grey argillite, limy argillite, and buff-weathering siliceous limestone. Fragments of banded light-grey limestone occur as angular blocks several feet across, and one such block, well exposed in the basin southwest of the summit of Spine Mountain, is about 8 feet thick and 75 feet long. The conglomerate and breccia are underlain by grey argillite containing thin beds of dark-grey limestone. Rocks of the type exposed in the Finkle Creek basin continue to the southeast as far as the head of Glacier Creek where they grade into dominantly green and grey phyllites which cross the valley of Gainer Creek. The green phyllites commonly are fragmental, and lenses of buff limestone and amygdaloidal fragmental rocks are interbedded with them on the southeast side of Gainer Creek and extend southeast to the limit of mapping.

The upper member of the Jowett formation is a distinctive green agglomerate or volcanic breccia. Typically the breccia is green to dark green, locally purplish, and is made up of vague rounded fragments an inch to a few inches across. Thin-sections reveal that the matrix is also fragmental and composed of rounded and angular fragments of volcanic rock, commonly with interstitial carbonate. The principal minerals are very fine-grained epidote, actinolite, and chlorite and minor plagioclase. Fragments and matrix are of about the same colour, but fragments usually stand out in relief on weathered surfaces. Although it is somewhat phyllitic, the upper member is resistant to erosion and tends to make continuous ridges and prominent bluffs. The rocks show no bedding or banding but commonly have a poor cleavage. The base of the upper member is sharply defined, except in the valley of Gainer Creek, where it is gradational with green fragmental rocks of the middle member. The top of the upper member is a conformable contact with basal argillite of the Broadview formation. The upper member ranges from about 200 to about 800 feet thick.

The total thickness of the Jowett formation is difficult to estimate accurately. On Gainer Creek, the thinnest section in the map-area, it is 1,500 to 2,000 feet; on Mount Jowett it appears to be double that thickness.

The Jowett formation is not found on the Silvercup anticline, where the Sharon Creek formation is overlain by the Broadview formation (*see* p. 29). The lower division of the Broadview formation on the Silvercup anticline contains two pyroclastic members; one at the base is 50 to 100 feet thick, and one 1,000 to 1,500 feet above the base is about 400 feet thick. In the northeastern part of the area a thick sequence of grits without significant volcanic material overlies the Jowett formation and is regarded as part of the Broadview formation. Close studies along formational contacts suggest that the sequence in both the northeastern part of the area and on the Silvercup anticline is a conformable one. It is concluded that only part, if any, of the Jowett formation was deposited in the vicinity of the anticline. Whether or not the lower division of the Broadview formation on the anticline is equivalent to part of the Jowett formation is a matter for speculation. Similarities between the pyroclastic member of the lower Broadview and the upper member of the Jowett formation suggest a possible correlation of these two members. Lithologic changes within the Jowett formation along strike have been described in the foregoing paragraphs. In general the formation appears to thin toward the southeast.

Broadview Formation

The uppermost part of the Lardeau group in the Ferguson area is the Broadview formation, named for exposures along Broadview Creek and near the Broadview mine. It is exposed in two broad belts—one in the northeast part of the map-area and the other on the southwest flank of the Silvercup anticline. The formation comprises a very thick sequence of grey and green unsorted quartzites or grits* and phyllites, with very minor interbedded pyroclastics. The rocks show all gradations from grit to phyllite and from green to grey or black, and the various types are closely interbedded and change in relatively short distances both across and along the strike. Stratigraphic subdivisions can be discerned, but in general they can be traced only relatively short distances. In particular, a succession determined on Mount Homer and Nettie L Mountain in the northeast belt cannot be matched with a succession determined on Silvercup ridge (*see* table, p. 28). On Silvercup ridge and for a short distance up the south and east slopes of Great Northern Mountain three divisions of the formation are recognizable, but on the summit of Great Northern Mountain facies changes make it impossible to distinguish between the middle and upper divisions. Rocks of the Broadview formation probably are exposed widely beyond the limits of the map-area.

Much of the Broadview formation is composed of blocky grey grit, dark-grey and green micaceous grit, and phyllite. Thick sequences of interbedded blocky and micaceous grits with more or less well-defined bedding planes are common. Blocky beds generally weather light grey and contain readily visible dark-grey to black rounded quartz grains. The quartz grains are not sorted; coarse grains locally as much as 1 centimetre across are scattered through a matrix of much smaller grains with a wide range of sizes. Quartz, muscovite, and chlorite are the main constituents seen in thin-section, and minor plagioclase, biotite, epidote, hornblende, and varying amounts of carbonaceous matter are also present. Grits composed mainly of quartz are blocky; micaceous and carbonaceous varieties are phyllitic. In green grits visible quartz grains are whitish. Thin-sections show that the green rocks contain the same minerals as the grey rocks, and differ from them only in the content of carbonaceous material.

Deformation has caused extreme changes locally in the apparent thicknesses and stratigraphic succession within the Broadview formation. Blocky grits interbedded with phyllitic grits tend to pinch out abruptly and phyllitic beds may be greatly thickened, or tightly squeezed and sheared (*see* Fig. 4). Detailed stratigraphy can be determined only by closely following individual beds relatively great distances. Primary sedimentary features that might be useful in determining stratigraphic tops of beds have not been found in the Broadview, and secondary structures such as bedding-cleavage relationships and dragfolds are complex and difficult to interpret.

Two generalized sections of the Broadview formation are given in the following table. The succession on Mount Homer is well exposed and is recognized at many places in the northeastern belt between Ferguson and Gainer Creeks. The succession on Silvercup ridge is not as well exposed as that on Mount Homer but is known at several localities and can be recognized at many places along the southwest side of the Silvercup anticline. The two sections are lithologically similar but cannot be correlated in detail. Differences in the stratigraphy are considered to be the result of sedimentary facies changes. In the northeastern part of the area the Broadview overlies the Jowett formation, but on the Silvercup anticline where the Jowett forma-

* The term "grit" is used in this report for poorly sorted clastic sedimentary rocks with rounded and angular grains, mainly of quartz, up to several millimetres in diameter. The term is descriptive, and is not restricted, as in the classic usage, to rocks with angular grains.

tion is missing (*see* p. 26) the Broadview formation overlies the Sharon Creek formation. Sedimentary facies changes are found on the Silvercup anticline, particularly between Silvercup ridge and Great Northern Mountain.

Generalized Sections of the Broadview Formation

MOUNT HOMER AND NETTIE L MOUNTAIN

Approximate Thickness (Ft.)	Lithology
	Top not found within the map-area.
700	Grey to greenish-grey grit with dark-grey phyllitic partings, beds 6 inches to 1 foot thick.
300–500	Dark-grey to black phyllite and phyllitic grit.
500–1,000	Blocky light-grey grit, beds up to 6 feet thick, few phyllitic or thin-bedded rocks.
100	Greenish grit with buff-weathering limy beds less than 1 foot thick.
1,000–1,500	Green and grey grit in beds up to 1 foot thick with greenish-grey phyllitic interbeds.
50	Dark-grey to black argillite.
	Jowett formation.

SILVERCUP RIDGE

	Approximate Thickness (Ft.)	Map Unit	Lithology
			Milford group.
Upper Division	Several thousand.	10d	Light-green and light greenish-grey grit, greenish phyllitic grit, *minor* grey grit and dark-grey phyllite.
Middle Division	Several thousand.	10c	Dark-grey to black phyllite and phyllitic grit with relatively few interbeds of blocky grey grit.
	500–1,000		Grey and greenish-grey grit with phyllitic interbeds; beds a few inches thick.
Lower Division	400	10b	Pyroclastic member. Green phyllitic tuff, lapilli-tuff, agglomerate, and breccia.
	1,000–1,500	10a	Green and grey grits with interbeds of dark-grey phyllite and phyllitic grit.
	50		Green to dark-green somewhat limy phyllite.
			Sharon Creek formation.

The section on Mount Homer was measured on the southeast side where the rocks are well exposed, and individual beds can be seen from a distance and traced through a series of complex folds (*see* Fig. 3). Overlying the Jowett formation is dark-grey to black argillite which has been followed along strike to the limits of the map-area. It ranges from a few feet to 200 feet thick and locally is complexly infolded with the overlying grits. The grits immediately overlying the argillite are

characteristically thin bedded with light-grey blocky beds separated by dark greenish-grey phyllitic beds. These rocks are a few hundred feet thick and grade up into a sequence of grits and phyllites, without distinctive markers, which in turn are overlain by greenish grit containing buff-weathering limy beds. The limy beds, though not mapped, have been recognized at a number of places between Gainer and Ferguson Creeks. They include buff-weathering interbeds of limestone a few inches thick in grit and greenish phyllite, coarse grits with a limy cement (Plate XII), and locally lenses of limestone a few feet thick. On Mount Homer the limy beds are overlain by very blocky light-grey grit, but to the southeast grits overlying the limy beds contain dark-grey phyllitic partings. The highest member of the Broadview formation shown in the table is exposed on the crest of the ridge about midway between Mount Homer and the summit of Nettie L Mountain. Probably stratigraphically higher rocks occur lower on the slopes southwest of Nettie L Mountain (*see* Fig. 3), but they are broken by faults and their exact relationship to the section described is uncertain.

Grits and phyllites in a belt one-half to 1 mile wide along the northeast side of the Cup Creek fault zone belong to the Broadview formation but have not been correlated with the section on Mount Homer, either because they are highly sheared and broken by faults or because they have no structural continuity with the Mount Homer section. Northwest of Triune Creek the rocks are mainly blocky grey grit with dark-grey phyllitic interbeds. Locally a bed of green phyllite, probably of volcanic origin, is found. One such bed a few hundred feet thick is exposed in Cup Creek near Lardeau Creek, and another occurs on the northwest side of Triune Creek near the Cup Creek fault zone. Attempts to trace and correlate these green phyllites were not successful. Between Finkle Creek and the ridge southwest of Nettie L Mountain the rocks are highly sheared dark-grey to black phyllitic grits.

Southwest of the Silvercup anticline on Silvercup ridge three more or less well-defined divisions of the Broadview formation are recognized. The lower division, roughly 2,000 feet thick, is mainly grey and green grit with a distinctive green limy phyllite at the base and a pyroclastic member at the top. The middle division, several thousand feet thick, contains a few hundred feet of thin-bedded grit in the lower part but is predominantly soft black phyllite and phyllitic grit. The upper division is light-green or grey grit, locally very coarse grained.

The basal member of the lower division, which is a soft, somewhat limy green phyllite, lies directly on the Sharon Creek formation. It is generally a few tens of feet thick and locally is as much as 200 feet thick. Study of thin-sections indicates that the green phyllite is an altered limy argillaceous rock composed of actinolite, chlorite, and plagioclase and containing clastic quartz grains and crystal and rock fragments probably of volcanic origin. The green phyllite is overlain by a thick sequence of green and grey grit and phyllitic grit without distinctive characteristics or marker beds. The basal green phyllite and part of the overlying sequence of grits are repeated across the Silvercup anticline, but the upper part of the grit sequence and the overlying rocks are not exposed on the northeast limb of the anticline because they are transected by the Cup Creek fault zone.

The green and grey grits are overlain by a striking pyroclastic member about 400 feet thick, which is taken as the top of the lower division and has been traced from the southwest slopes of Triune Peak to Broadview Creek, where it is transected by the Broadview fault. The member is phyllitic and is composed of green agglomerate and breccia and phyllitic green crystal tuff. The agglomerate and breccia are composed of vague, rounded and angular fragments of green volcanic rock scattered in a somewhat darker-green tuffaceous matrix. Relatively scarce beds a few feet thick are crowded with well-defined rounded fragments up to about 2 inches in

diameter, many of which are amygdaloidal. The fragmental rocks are interbedded with green fine-grained clastic rocks, some of which have prominent white beds a fraction of an inch thick and others contain scattered well-formed crystals of augite up to a few millimetres across. The crystals and rock fragments are broken and are probably of volcanic origin. Study of thin-sections shows rocks of this member to be composed mainly of a very fine-grained aggregate of epidote, chlorite, actinolite, and plagioclase. Whitish beds contain feldspar crystals and detrital quartz grains.

The volcanic member is overlain by the middle division of the formation, which comprises several hundred feet of relatively thin-bedded grey and greenish-grey grits grading upward into a thick sequence of dark-grey to black phyllite and phyllitic grit. These rocks are strongly sheared, contorted, and crushed. They contain disseminated pyrite which commonly, in alpine basins, gives rise to large rusty " iron caps." The middle division has been traced from Silvercup ridge, where it is most easily recognized, northwest across Lardeau Creek and is well exposed in the lower part of Alpha Creek.

The upper division of the Broadview formation on Silvercup ridge is mainly light-coloured, relatively blocky grit. It is dominantly green but contains light-grey members. Dark-grey phyllitic grits are present locally. The contact with the underlying middle division is gradational, and its location on Figure 2 is approximate. The uppermost part of the upper division is characteristically coarse grained and contains several massive beds of green grit which form prominent bluffs in the lower part of Silvercup ridge and along Lardeau Creek.

Few of the rock types in the Broadview formation recognized on Silvercup ridge have been traced up onto Great Northern Mountain. The lower division is not exposed north of Broadview Creek. Grey and greenish-grey grits at the base of the middle division at the True Fissure mine are overlain by interbedded dark-grey grits and black phyllites. These rocks are succeeded to the southwest, and apparently overlain, by soft, black, gritty, micaceous argillite and phyllite, in which occur scattered thick beds of blocky, coarse-grained grey grit. These rocks are in turn overlain by greenish-grey phyllitic grits which exhibit lustrous, wavy cleavage surfaces. These greenish, lustrous rocks outcrop on the summit of Great Northern Mountain and another peak 3,000 feet to the east, and occur extensively around the head of Mountaingoat Creek. To the southwest on the Lardeau Valley slope they become greener and less phyllitic, grading to light-coloured blocky grit typical of the upper division. The relationship of the greenish phyllitic rocks to the middle and upper divisions is not understood.

MILFORD GROUP

The Milford group is named from Milford Peak (*see* Bancroft, 1919, p. 43), on the west side of Kootenay Lake about 6 miles north of Kaslo (*see* Fig. 1). The stratigraphy and structure of the group near Milford Peak are described in detail by Cairnes (1934, pp. 38–43). Near the type locality the group is a few thousand feet thick and is mainly black argillite and slate with interbeds of limestone and chert. Fossils from the lower part of the group are late Palæozoic, those from the upper part are Triassic, and the sequence is apparently conformable. The group was throught to overlie the Lardeau group with unconformity even though the lower contact is concordant with the Lardeau group.

The Milford group was traced northwest from Milford Peak and into the Lardeau map-area (*see* Walker and Bancroft, 1929, Map 235A) to the southwest side of Trout Lake, a little more than 10 miles south of Ferguson. Farther to the northwest Carboniferous fossils were found in limestone near the mouth of Lardeau Creek, on Mount Thompson between 4 and 8 miles northwest of Lardeau Creek,

APPENDIX II

COMPILATION REPORT

WINSLOW GOLD MINE

TRANS-WESTERN OILS LIMITED

JAMES MILLAR & ASSOCIATES LTD.

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APPENDIX I

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ENVELOPE

SCHEMATIC SECTION OF MAIN WINSLOW WORKINGS &
SKETCH OF OKANAGAN WORKINGS

1. INTRODUCTION

This report is to serve as a compilation of available data on the Winslow claim group. The property was examined during September 1958 and October 1963. The report is based on the two examinations and a comprehensive search of the available geological and engineering reports. Due to the condition of the Winslow workings much of the report must depend upon the work of previous reporters. A bibliography of this material will be found in Appendix 1.

A number of maps are available of the Winslow underground workings, but they do not always agree in all details. A section showing the levels and the area of dispute is included in an envelope at the back of the report.

Any dollar values given are based on the following metal prices (August 1963).

Gold	$35.00 per ounce
Silver	1.29 " "
Lead	11-1/2¢ per pound
Zinc	12-1/2¢ " "

2. GENERAL STATEMENT

The Winslow group of claims lie in an area of favourable geological conditions and fairly wide spread mineralization. No geological work, diamond drilling or systematic evaluation has been done on the property in spite of the substantial widths and consistency of the auriferous quartz vein structure.

Inaccessibility had initially hindered development and since the improvement of transportation conditions the depressed gold mining situation has been no incentive toward exploration. The property fully warrants a properly conducted evaluation using modern methods. Very nominal expenditure would be necessary to provide adequate access for the exploration phase of the project.

The property must be considered a prospect and any exploration program laid out with this in mind.

The Winslow vein structure has been explored and mined to some extent and has the best possibility for the development of ore grade tonnage of the known showings.

3. RECOMMENDATIONS

The exploration program must be designed to commence with an evaluation of the potential of the Main Winslow Vein structure. Very little is known of the geology or distribution of values either underground or in the surface exposure.

The general geology of the balance of the claims group will offer help in evaluating the Winslow vein. In the course of this work the othe veins, the Alice, Okanagan, Enderby, etc., will be appraised for their value.

Sour as Mills Alice?

The program should be laid out to carry out this initial evaluation during the three to four months available during the summer season.

1. A geological and prospecting program should be carried out over the entire property using air photo control. The areas containing the known showings and any discoveries made during this work should be mapped geologically and topographically by picket-line. This should be accompanied by thorough sampling of all surface showings at regular intervals rather than the selective methods used to date.

   This program should be commenced not later than the first of July to take advantage of the majority of the summer season.

2. Several men should be employed trenching and test pitting any showings considered worthy of additional investigation and evalutation. Old trenches that might be considered strategically located should be cleaned out.

3. The adits on all structures that are accessible should be mapped in detail and sampled regularly.

4. All caved adits should be surveyed for their value as information and the probable cost of re-opening. It is probable that the opening of Number Two adit should be completed to allow inspection.

5. Based on the surface evalutation and geology the opening of Number Four adit and retimbering should be done. To explore for structure ahead of the present Number Four adit at least three drill holes should be drilled. The object would not be to trace ore shoots, but to trace structure.

6. The Number Four adit should be extended to cross cut completely the vein structure. Predicated on geological evaluation, allowance should be made for drifting on the vein to explore the vertical extension of the original ore shoot developed in the upper levels. Geological conditions should be allowed to govern entirely this program.

7. Any advanced exploration of the other showings, known or discovered by the initial program, should be predicated on the results of investigation.

8. Estimated cost of Program.

Phase I - Geological and Prospecting Program.

Time - one month, including mobilization and setting up.

Crew	geologist @ $500/mth.	500.00	
	2 helpers @ $350/mth.	700.00	
	W.C.B. & U.I.C. @ 10%	120.00	
			$1320.00
Living Expenses 30 days @ $20, including rent and supplies			600.00

(Geological and Prospecting Program - cont.)

Balance Forward			$ 1920.00
Transportation	jeep rental	$ 250.00	
	expenses	200.00	450.00
Equipment	picks, shovels, sample sacks, etc.		100.00
Assaying	100 samples @ $7.50		750.00
Misc.	mail, communication, aerial photos, etc.		50.00
Allowance for contingency 10%			300.00
			$ 3570.00

Phase II - Trenching and Adit Opening

Time - three weeks.

Crew	3 men @ $15/day/21 days	$1035.00	
	W.C.B. & U.I.C.	105.00	$ 1140.00
Living Expenses (local labour) $0/day			170.00
Equipment and Supplies			200.00
Allowance for contingency			200.00
			$ 1710.00

Phase III - Diamond Drilling

Time - 2 weeks

Diamond Drilling Contract estimated, 600' @ $5/ft.			$ 3000.00
Supervision			
Geologist @	$250.00		
Helper	$200.00		
W.C.B. & U.I.C.	$ 50.00	$ 500.00	
Living Expenses, 14 @ $15		210.00	
Transportation		225.00	
Assaying, 20 @ $7.50		150.00	
Supplies, etc.		50.00	
Misc.		55.00	1190.00
Allowance for contingency			420.00
			$ 4610.00

Phase IV - Underground Work

No estimate is practical of the cost of this phase in consideration of the uncertainty of a number of factors.

Total cost of the recommended program is:

Phase I	$3570.00		
Phase II	1710.00		
Phase III	4610.00		
	$9890.00	say	$10,000.00

Phase I and II are recommended immediately with Phase III to be predicated on the results of Phases I and II.

9. Following the geological evaluation it will be possible to recommend intelligently a follow-up program. Particular attention should be paid to accurate and thorough sampling to allow a meaningful evaluation.

10. An additional 6 claims should be located to the north and northwest.

11. The present minority interests should be contacted in an attempt to purchase or option the interests to allow full control over title on the property.

12. In the area of the Winslow workings one of the main questions requiring clarification is the reason why the early operators did not drift on the vein to search for more ore shoots on the upper horizons. An examination of the geology on the northerly extension may offer some good reason for this.

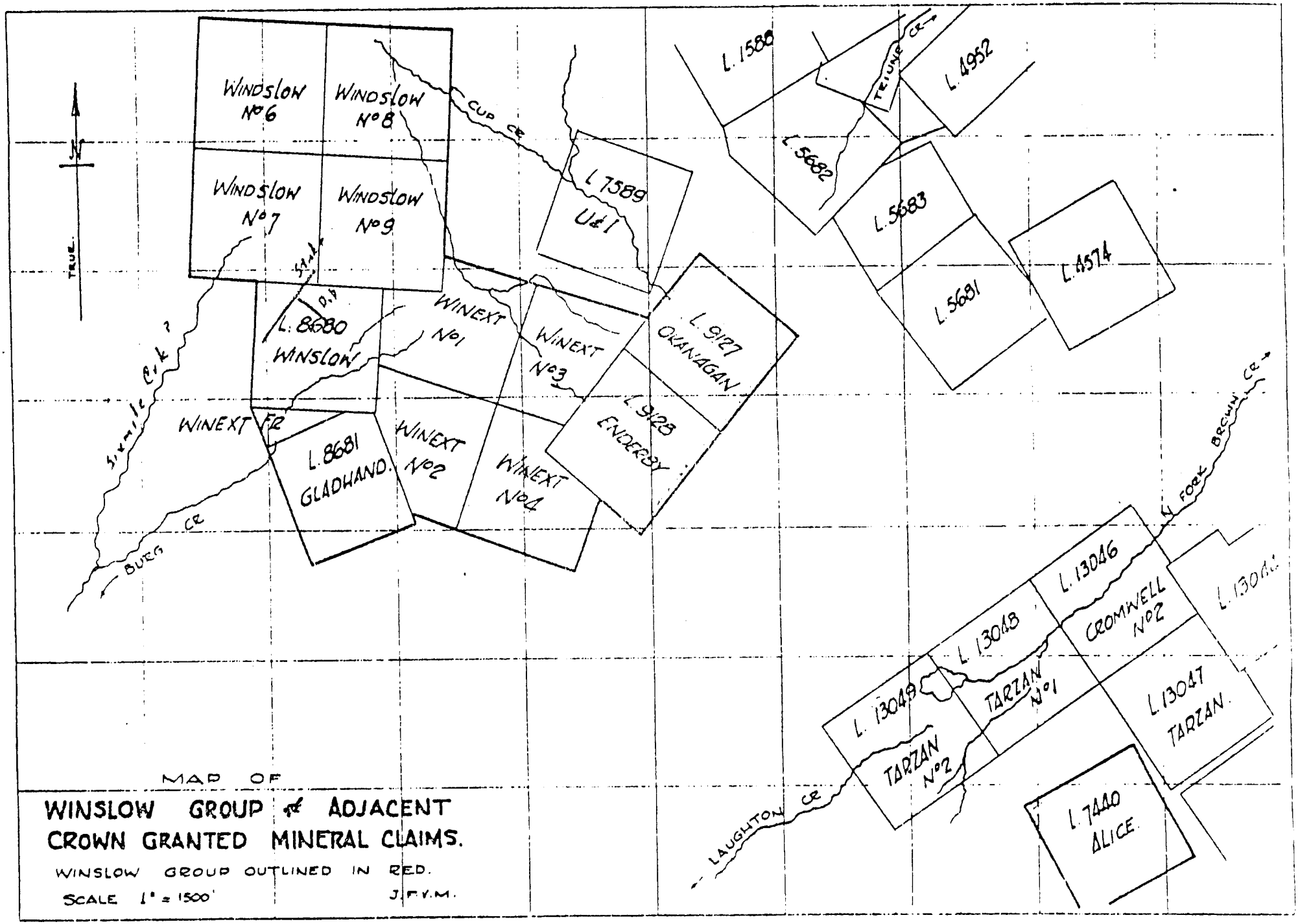
4. MINERAL DEPOSITS

A. PROPERTY

Extent

The Winslow Group consists of the following mineral claims, all of which are contiguous except the Alice crown grant, lying about a mile and a half south.

Claim	Record No.	Registered Owner	Assessment or Tax Due Date
Winslow	L8680	Trans-Western Oils Ltd., et al.*	July 1, 1964
Gladhand	L8681	Trans-Western Oils Ltd., et al.*	July 1, 1964
Okanagan	L9127	Trans-Western Oils Ltd.	July 1, 1964
Enderby	L9128	Trans-Western Oils Ltd.	July 1, 1964
Alice	L7440	Trans-Western Oils Ltd.	July 1, 1964
Windslow 6	B2934	W.H. Patterson, in trust for Trans-Western Oils Ltd.	
Windslow 7	B2935	W.H. Patterson, in trust for Trans-Western Oils Ltd.	Nov. 15, 1964
Windslow 8	B2936	W.H. Patterson, in trust for Trans-Western Oils Ltd.	Nov. 15, 1964
Windslow 9	B2937	W.H. Patterson, in trust for Trans-Western Oils Ltd.	Nov. 15, 1964



MAP OF

WINSLOW GROUP & ADJACENT CROWN GRANTED MINERAL CLAIMS.

WINSLOW GROUP OUTLINED IN RED.

SCALE 1" = 1500' J.F.Y.M.

Claim	Record No.	Registered Owner	Assessment or Tax Due Date
cont.			
Winext #1	4918	W.H. Patterson, in trust for Trans-Western Oils Ltd.	October 25, 1964
Winext #2	4919	W.H. Patterson, in Trust for Trans-Western Oils Ltd.	October 25, 1964
Winext #3	4920	W.H. Patterson, in trust for Trans-Western Oils Ltd.	October 25, 1964
Winext #4	4921	W.H. Patterson, in trust for Trans-Western Oils Ltd.	October 25, 1964
Winext Fraction	4932	W.H. Patterson, in trust for Trans-Western Oils Ltd.	October 25, 1964

* The following interests are held in the Winslow and Gladhand crown granted claims:-

Winslow: Trans-Western Oils Limited (NPL) 28/36th undivided interest

George Neil Bennett)
Fredrick William Bennett) 8/36th undivided interest
Katherine M.M. Bennett)
Sarah Evelyn Bennett)

Gladhand: Trans-Western Oils Limited (NPL) 20/32nds undivided interest

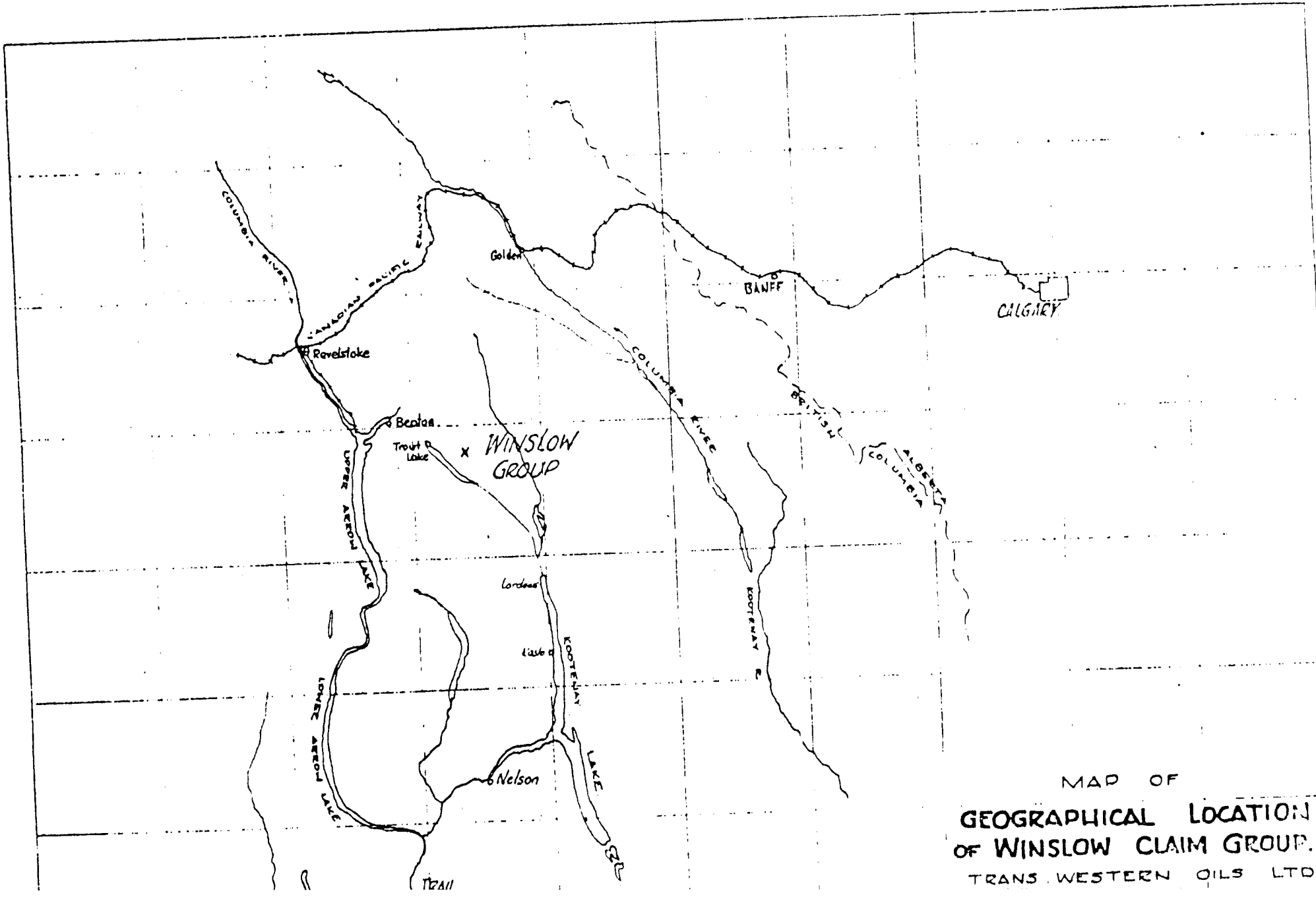
George Neil Bennett)
Fredrick William Bennett) 12/32nds undivided interest
Katherine Bennett)
Evelyn Myers)

Location

The property is located four miles northeast of Trout Lake in the Lardeau District of southeastern British Columbia. The village of Trout Lake lies seven miles northeast and at the north end of the Lake. Revelstoke, a Canadian Pacific Railway divisional point, is the closest town of any size and lies about 56 miles northerly.

The longitude of the claim group is 117°22' W and latitude 50°37' N Elevations extend from 5500 to 7500 feet above sea level. The main Winslow showing lies from 5800 to 6800 feet above sea level or about 3400 to 4400 feet above Trout Lake.

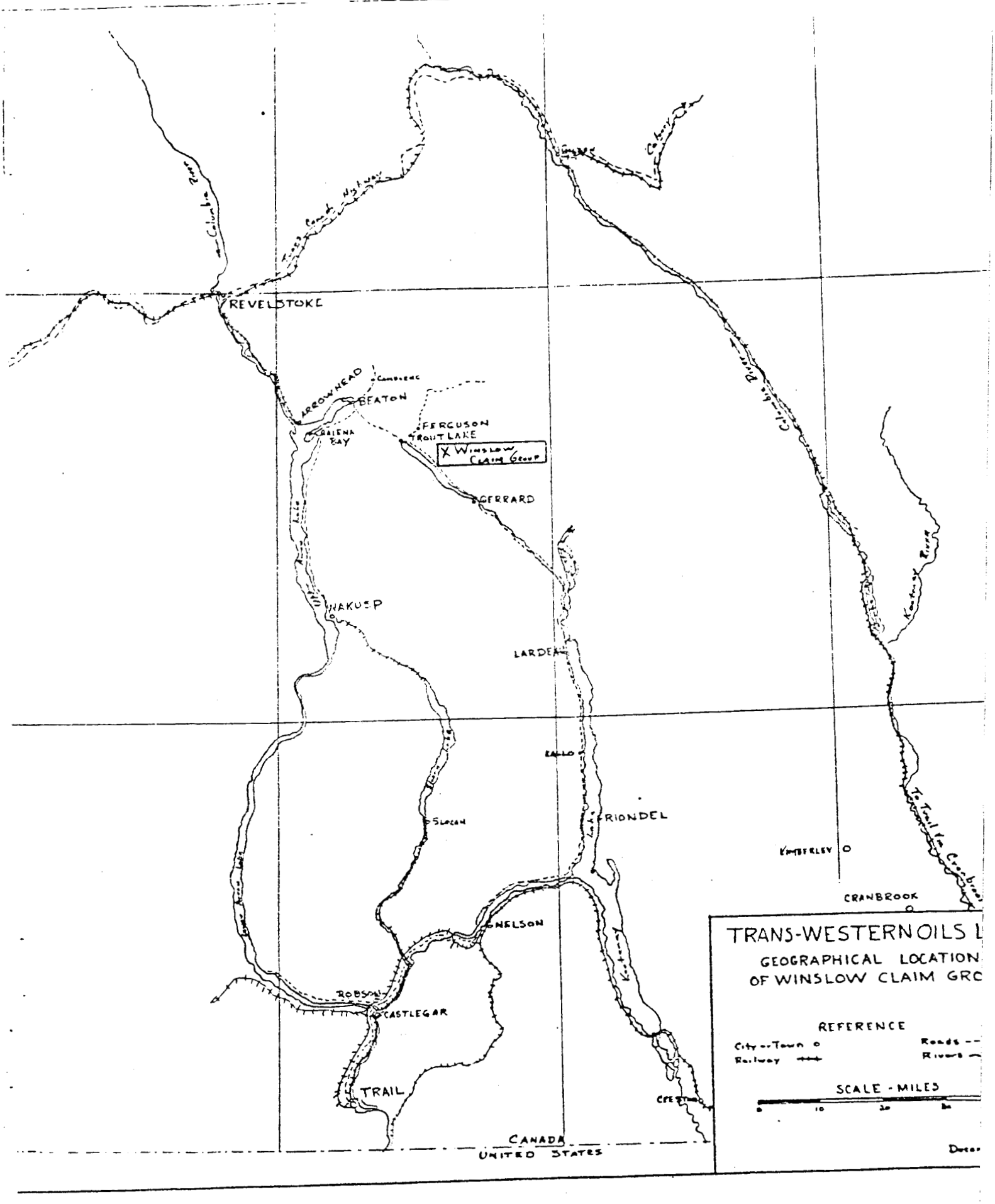
Ingress and egress for production materials and shipments would depend on the source of equipment for construction and ultimate destination of concentrate from production. Three general routes are available now for concentrate shipment and two access routes are possible for equipment shipping.



MAP OF

GEOGRAPHICAL LOCATION OF WINSLOW CLAIM GROUP.

TRANS WESTERN OILS LTD


REVELSTOKE
ARROWHEAD
BEATON
GALENA BAY
FERGUSON
TROUT LAKE
X WINSLOW CLAIM GROUP
GERRARD
NAKUSP
LARDEAU
SLOCAN
RIONDEL
KIMBERLEY
CRANBROOK
NELSON
ROBSON
CASTLEGAR
TRAIL
CANADA
UNITED STATES
TRANS-WESTERN OILS L
GEOGRAPHICAL LOCATION
OF WINSLOW CLAIM GRO
REFERENCE
City or Town
Railway
Roads
Rivers
SCALE - MILES

The southern route would involve shipping concentrates by truck directly to Trail via Gerard by gravel road, to Lardeau (33 miles) and to Kaslo (20 miles). A paved road 80 miles long connects with the lead-zinc smelter of Consolidated Mining and Smelting Co. of Canada at Trail, B. C.

An alternative route to Trail would be by truck to Beaton, 19 miles to loading into rail cars on barges. The barges could be towed to Nakusp, a railterminus on a CPR branch line, connected with the CPR Kettle Valley Line and thence to Trail.

For movement west or east, and for access for the purpose of examination, the most convenient route would be via Revelstoke, south to Arrowhead, 32 miles by road. A car ferry connects Arrowhead and Beaton with twice daily ferry service. From Beaton a good gravel road can be followed 18 miles south. From this point, a narrow jeep road extends to within 300 yards of the main workings on the Winslow mineral claims. Foot trails connect the Winslow with the Okanagan-Enderby and Alice mineral claims.

A forestry road constructed several years ago follows the side of Laughton Creek and should be suitable for access to the Alice area for exploratio and mapping.

The route via Revelstoke would likely be the best for freight movement into or out of the property.

History

In 1865 four boats journeyed up Columbia River from Fort Caldwell to Goldstream River and French Creek and it is reported that some members of the expedition prospected the head of the Northeast Arm of the Upper Arrow Lake for placer gold.

In 1888 some $4 free milling gold quartz was reported, and by 1889 ten locations had been filed on the river flowing into the Northeast Arm.

In 1890-91 prospecting was reported in the Trout Lake area and in 1895 the True Fissure was bonded and the Silver Cup actively worked.

In July 1899 gold values from an assay on the Eva started a gold rush in the area. For eight years many gold claims were staked and developed. Four or five stamp mills were erected and the town of Camborne grew rapidly. The operations proved unprofitable, partly due to the low tenor of the ores, and partly due to poor management. In 1908 the camp was practically dormant.

The town of Ferguson grew steadily from 1893, due mainly to the Silver Cup and Nettie L mines. In 1903 a silver mill was erected at Fivemile, and is said to have operated for three or four years. It proved unsuitable for the ore and was later destroyed by fire.

Many properties of the camp proved amenable to 'direct shipping' in which a property is mined for the high grade portions, and sometimes aided by hand sorting, a product is shipped directly to the smelter. Generally, it requires an ore with high silver and/or gold values, such as some in the Central Belt, to support the high 'per ton' cost of such an operation.

Property

The Winslow was staked prior to 1904 and most of the development work was conducted prior to 1914.

Shortly after the property was discovered it was explored by extensive trenching and shallow tunnelling. In 1908 the No. 3 level was extended 150 feet with reportedly good results. Although the reports indicate a discovery of fair grade material, there are no shipments reported until 1918. The difficulties in transporting the ore from the property to the distant smelting facilities probably discouraged the early miners. From then until 1933 when the property was leased, very little was done. Shipments were reported in 1934-1938. In 1939 a mill of reported 40 ton a day capacity was installed which ran intermittently from May until the fall of 1940. Labour difficulties for gold mining activities during the Second World War caused the property to be inactive.

Other than various examinations and assessment work, development of the property has remained dormant from 1946 until the present time.

B. GENERAL NOTE

The mineralization found on these properties to date consists of well defined quartz-carbonate veins, some of which are found to cut directly across the schistosity of the rock and some of which lie conformably within the schistosity. The values are mainly in gold with minor silver, both of which are carried by pyrite either disseminated or in lenticular masses in the quartz, with some free gold reported.

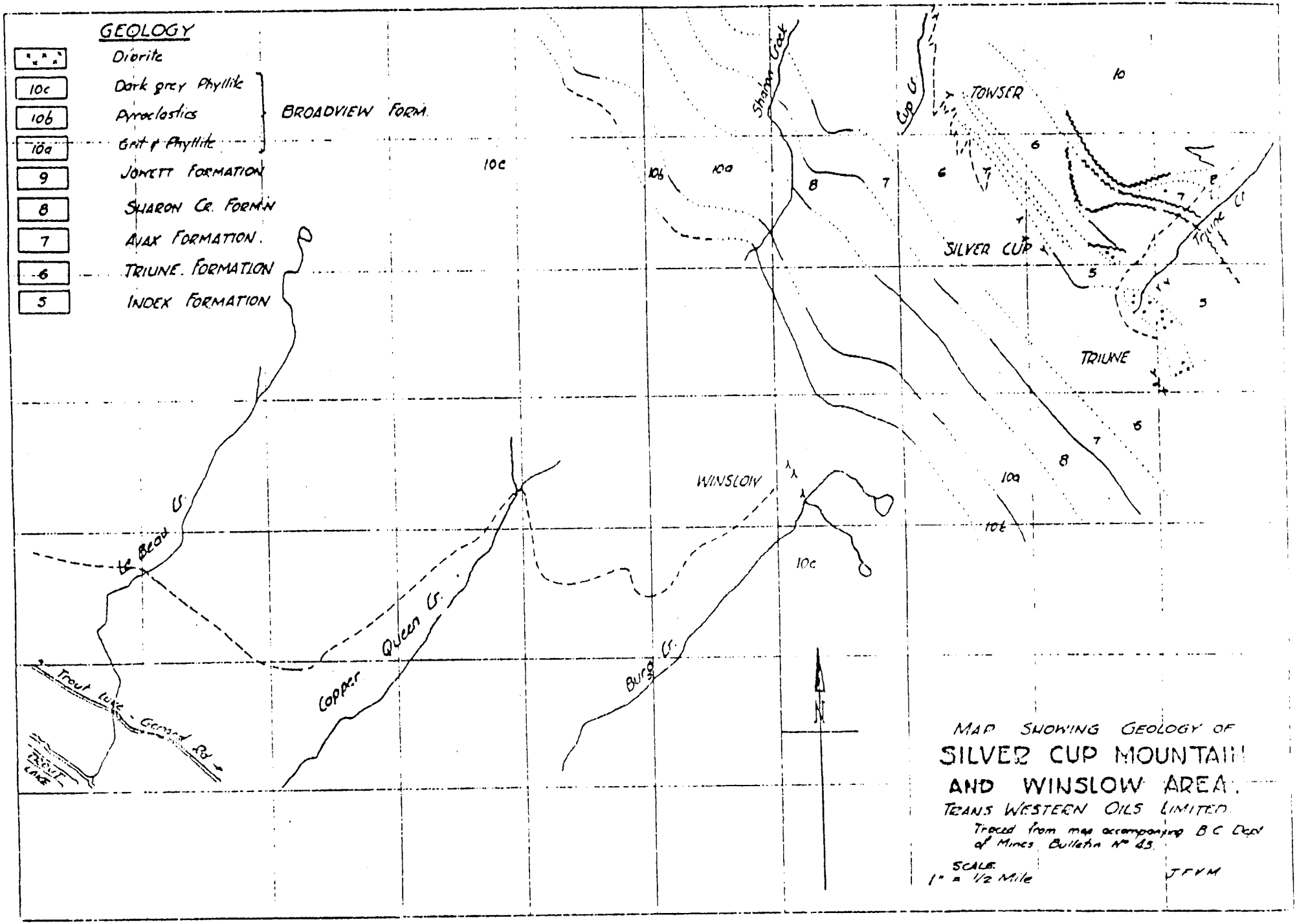
The Winslow Group of claims cover a number of known mineralized veins, of which only three have been explored to any significant extent. The Winslow Vein has a known width up to 12 feet (aggregate width of quartz) and has been explored on five adits. The Okanagan and Alice veins have had considerably less work. Some production has been taken from each.

C. GEOLOGY OF AREA

The Lardeau area is generally considered as that strip of mountainous country extending northwesterly from the north end of the Kootenay Lake to the north end of the Upper Arrow Lake. The Silver Cup mountains to the northeast of Trout Lake form the longitudinal axis of the area.

The southwest side of the area is underlain by granitic rocks of the Kuskanax Batholith. To the northeast an area of granite and gneissic sediments border the area towards the headwaters of the Duncan and Illecillewaet River. Occupying a great synclinal trough between the intrusives and older gneiss are thick sequences of highly deformed sedimentary-volcanic complex, with local small diorite intrusives. The sedimentary-volcanic complex is classified as late Precambrian and are correlated, stratigraphically, to the broad band of Proterozoic sediments extending north from the Pend Orielle area through the Salmo, Kootenay Lake, Bluebell to the Lardeau and have been tentatively traced north along the backbone of the Selkirk Mountains to the Columbia River.

The sedimentary-volcanic assembly has been divided into the followin divisions.:


GEOLOGY
Diorite
10c Dark grey Phyllite
10b Pyroclastics
10a Grit & Phyllite
BROADVIEW FORM.
9 JOHNETT FORMATION
8 SHARON CR. FORMN
7 AJAX FORMATION.
6 TRIUNE FORMATION
5 INDEX FORMATION
Sharon Creek
Cup Cr.
TOWSER
SILVER CUP
TRIUNE
WINSLOW
Le Beau
Queen Cr.
Copper
Trout Lake - Gerrard Rd.
Burgess Cr.
N
MAP SHOWING GEOLOGY OF
SILVER CUP MOUNTAIN
AND WINSLOW AREA.
TRANS WESTERN OILS LIMITED
Traced from map accompanying B C Dept of Mines Bulletin No 45.
SCALE
1" = 1/2 Mile
JFYM

Milford	Slate, argillite, chert, limestone, pebble conglomerate
Lardeau Broadview	grey, green, grits and phyllite, minor pebble conglomerate and pyroclastic rocks
Jowett	mafic lavas, pyroclastics, argillite, minor limestone
Sharon Creek	dark grey to black siliceous argillite, slate, phyllite, minor grit
Ajax	massive grey quartzite
Triune	grey to black siliceous argillite
Index	dark grey and green phyllite, dark grey argillite, minor limestone and volcanic rocks
Badshot	grey limestone
Hamil Mohican	dark grey and green phyllite, minor limestone
Marsh-Adams	grey, brown and white quartzite, micaceous quartzite, minor phyllite
Mount Gainer	white to pinkish quartzite

The claims at the Winslow are mainly underlain by rocks of the Broadview and Sharon Creek formations. The Broadview, found on the Winslow and Okanagan, consists of a very thick sequence of grey and green unsorted quartzites, grits and phyllites. All rocks are gradational with all or most types found interbedded. The Alice claim is covering rock of the Wharon Creek formation, mainly dark grey to black siliceous argillite, slate and phyllite.

Mineralization is very widespread along three distinct bands or belts that trend roughly parallel to each other in a northwest direction conforming to the long axis of the area, the physiographic mountain and valley systems and are found in the parallel areas of similar geological conditions.

The northeast belt, the Lime Dyke Belt, extends from Duncan Lake northerly to the Incomapleaux River and consists chiefly of galena and sphalerite replacement in limestone. The southwest belt lies along the southwest side of the Lardeau area and immediately southwest of the Trout Lake-Lardeau River valley. The Central Mineral Belt lies along the Silver Cup Mountains and northerly through to Poole Creek on the Incomapleaux River.

Mineralization in theCentral Belt is mainly sulfides in quartz veins. To the northeast side of the ridge of the Silver Cup Mountains the mineralization is mainly silver and lead with minor gold and zinc values. The veins to the southwest side of the Silver Cup Mountains contain more pyrite and the main values are in gold with minor silver values. The silver-lead veins of the Central Belt have contributed the major portion of the production to date in the entire Lardeau area. Up to 5 ounces of silver to the unit of lead were shipped during the initial production.

Most of the productive deposits of the belt are associated with faulting or fracture zones associated with faulting. None of the leads are continuously mineralized, but ore grade mineralizatinn is found in shoots. In the Silver Cup the shoots are narrow and deep, the largest being about 300 feet long and 1200 feet deep. To the north of the belt, the ore bodies mined were relatively long and not too deep. No proof of zoning of minerals has been found in the area but the possibilities are interesting particularly in the Central Mineral Belt.

D. WINSLOW VEIN

The Winslow vein has been traced across the Winslow claim, almost from the south border northerly to the crest of the hill between Burg Creek and Sixmile Creek. The vein has been traced and explored underground for over 400 feet horizontally and over 300 feet vertically. The full width is exposed in only thr places. The cross sections show an aggregate width of 12 feet of quartz in two veins separated by 1.5 to 4 feet of schistose material. The vein has an inconsistant strike of between North and N 20° E and a fairly steady dip of 55 - 60° East.

Mineralization is pretty well limited to the single ore shoot mined to date over the 300 foot depth. Mineralization is fairly lean throughout the remainder of the explored section of the vein. This is fairly characteristic of the high grade oreshoots in the Silver Cup - Triune properties a mile or so to the east. The vertical extent of the orebody has not been determined, but it would appear that the Winslow vein conforms to the local type of vein having limited horizontal extent but fair depth possibilities. Pyrite is the main sulfide present with minor amounts of galena, sphalerite and occasionally free gold.

The discovery apparently was made by tracing float up Burg Creek. The vein material at the surface and for a short distance down dip in the oreshoot consisted mainly of iron oxide derived from the oxidation of pyrite with significant amounts of free gold. A heavy water course follows the vein closely at all levels opened to date. This has promoted leaching down to a greater depth than normal for this climatic area and the general geology. The heavy flow of water and sludge from all levels has been sampled and has been foun to be auriferous (A. Oakey-personal correspondence).

Gaul reports that he felt that the Winslow vein follows an old fault zone with little or no post mineralization movement and no significant cross faulting. The quartz fills the fissure or fault zone as it crosses the argillaceous and quartzitic schists. (A.J. Gaul, 1936).

Scorgie reports a total of 187038 ounces of gold were extracted from an estimated 400 tons of vein matter milled in the small gravity - amalgamation plant on the property. Reports indicate a probable 40 - 50% recovery in the plant. (MacDougall, 1944)

The gold values are partly present as free gold but more important are associated with the streaks and dissemination of pyrite. The values are limited to distinct shoots separated by low grade sections.

There is a possibility that the ore shoot in the Winslow vein is

partly at least due to the intersecting of the Winslow Vein with a cross vein S78W. Considerable mapping and additional work would be required to supply proof of this.

Development

Over 1000 feet of underground work has been done on this property, by hand methods. At least seven openings have been made, which all but the lower intersected the vein. Two upper openings, obviously the earliest work on the property, were badly caved in 1937. These openings were stoped to the surface over the length of the ore shoot.

Above No. 1 level, the ground surface rises on a steady 25 degrees to the plateau at the summit of the mountain, 7300 feet on strike of the vein.

The upper adit, No. 1A Level, at elevation 6780 feet is driven 178 feet along the footwall of the vein. The first 50 feet have been stoped to the surface. At a point 150 feet from portal, a Y raise has been driven along the footwall section. The left of the "Y" has a length of 32 feet with each upper arm of the raise, 50 feet long. This opening was actively mined during the milling operations of 1939 - 40 and was apparently open during the McDougall examination of 1946. Thehanging wall portion of the vein is exposed in two places on this level and is shown to be about the same average width as the footwall. All but the upper part of the very high grade ore shoot has been left in place.

Forty feet below No. 1A, at elevation 6740 feet, No. 1 Level was driven a reported 62 feet with the last 50 feet on the footwall vein. This section was on the 40 foot high grade shoot and the mined stope extends up from No. 1 Level right through to surface through 1A Level.

Most of the recovery to date originated above No. 1 Level. No. 1 Level was connected by surface tram with the coarse ore bin of the mill, 100 feet lower.

Syndicate records kept by W. S. Scorgie indicate the average of 47 samples from the level and small stopes averaged 0.62 ounces/ton over an average width of 5.5 feet.

At the same horizon as the coarse ore bin of the mill, the third adit, No.2 Level was driven as a crosscut for 160 feet, with a further 80 feet of drift. The vein aggregates between 6.5 and 10.0 feet in width with a similar but less well mineralized appearance than in the upper levels. It is reported (McDougall, 1946) that this level was also caved during 1946. The portal was cleared out and the level drained for access during the fall of 1963 The elevation of No. 2 Level is 6640 feet. An average of samples taken over the 80 feet drift section by the Winslow Syndicate (about 1936-7) returned 0.04 ounces per ton. A survey of geology and workings would indicate the direction in which the ore shoot (of No. 1 and 1A levels) should be located. MacDougall and Scorgie felt that it was probable that it lay to the left or south from the end of the crosscut whereas the 80 foot drift was driven to the right (northerly).

No. 2 Level has a particularly strong flow of water with much iron oxide in solution. The probability of secondary enrichment must be considered.

Gaul, in 1936, reported that the adit was caved and the adit filled with 'muck' and 'iron oxide'. He suggested that the 'muck' contained fine gold and should be washed through a sluice when the level was cleared out. There is no record of this work having been done.

No. 3 Level, approximately 100 feet below No. 2 level at elevation 6540 feet, was driven 300 feet from the narrow valley bottom of Burg Creek as a crosscut to the vein, adit cuts only footwall section as being 52 inches wide. At this point, the vein exhibits some sheeting, massive quartz and light pyrite mineralization. A very heavy flow of water is reported to have discouraged any amount of exploration at this point. The water apparently follows the original fault zone and is therefore closely associated with the vein structure. A sample was cut across the vein at this point during 1936-8 by the Syndicate and returned 0.05 ounces per ton. A report by an engineer reports that the vein intersected is similar to the upper intersections with some banding and disseminated pyrite (Gaul, 1936). A sample taken by W. Scorgie returned $20.65 per ton from this intersection. MacDougall (1946) reported 0.02 ounces per ton ($0.70 per ton).

No. 4 Level, elevation 6240 feet, was driven during 1914 in an attempt to explore the vein at the lowest point practical for an adit opening. The topography is such that the vein cuts obliquely across the valley of Burg creek. No. 4 level was driven from the lowest practical point to provide access to the vein. For additional depth an inordinately long crosscut or a winze would be required. The adit was collared on the Gladhand Mineral Claim very close to the Winslow boundary. The vein was not intersected but MacDougall (1946) estimates a further 100 feet of crosscut would be necessary to reach the projected location of the Winslow vein.

The area of No. 4 level would be ideal for the location of camp, mill and facilities. The completion of No. 4 level and the location of the structure at this horizon would give 'backs' above the opening to No. 1A Level of 500 feet and the total backs to the mountain top above No. 1 A Level of over 1000 feet. Timber is plentiful for mining and construction purposes. Road access would eliminate the more difficult sections of the present upper road.

Reserves

While it would be impossible to consider any Proven Ore Reserve figures at this stage on the basis of the data available, there are several notes that should be recorded.

1. Gaul, in 1936 calculated ore reserves on the Winslow as follows:

(a)	Above No. 1 Adit	2000 tons
(b)	Above No. 2 Adit	18000 tons
(c)	Above No. 3 Adit	12000 tons

Total reserves of 32,000 tons, not fully blocked out. As to grade, Gaul felt that "There is evidence that a grade of 0.4 ounces of gold per ton can be looked for in the ore in its primary state." He does not state what development may be necessary for this tonnage of this grade. There is also little record of what part of this tonnage was removed during the mining, high grading and milling operations of 1938 - 40.

2. For some reason no assay values are given for the hanging wall section of the vein. No stoping seems to have been done, so presumably the footwall ore shoot explored did not extend into the hanging wall veins.

3. The effect of dilution is difficult to assess. Much depends on the values to be expected in the hanging wall vein structure. The intervening 1-1/2 to 4 feet of sheared phyllite would likely have to be mined and removed.

E. OKANAGAN - ENDERBY VEIN SYSTEM

A large number of barren and mineralized quartz veins outcrop on the roughly glaciated gently sloping mountain top between Cup Creek and the Trout Lake slope. Most of the quartz veins have had little attention in spite of the relatively well exposed bedrock. The veins are either bedded in or cross cutting the schistosity of the argillaceous, carbonaceous or chloritic phyllites. Many have small to medium amounts of pyrite with smaller amounts of galena, sphalerite or chalcopyrite.

The general evaluation of the veins of this type in this area appears to be the attitude of the veins as compared to the enclosing rocks. Those cutting across the schistosity are more often of greater continuity and consistency whereas those following the schistosity are often found to be lenticular and variable in strike and dip.

The two veins prospected on the Okanagan-Enderby Section are quite different in attitude and mineralization, but both veins cut the schistosity.

Okanagan Vein - At an elevation of 7700 feet a strong quartz vein has been exposed by natural outcrop, two shallow 14 foot shafts and open cuts for a 200 foot length. The exposure is in a shallow basin on the summit of the mountain. The vein is well defined and well mineralized with pyrite, galena, and sphalerite. The shafts are inaccessible at present but MacDougall (1946) drained the northerly of the two and sampled the vein, and got a fair assay in gold.

1.68 oz/ton Au 1.2 feet

The vein lies in a slight arc with a change in strike from N 10°W (north) to N 33°W (south end) with observed dips of 57 - 65° East. The vein varies over the exposed section from 1.5 to 4.5 feet. The sulfides, mainly pyrite, are irregularly distributed through the quartz.

In an attempt to develop some vertical depth to the structure, a crosscut was started 200 feet south of the southerly shaft and 60 - 70 feet lower. According to MacDougall this would be the maximum practical vertical development by a level opening, that any more depth would require an excessively long crosscut or shaft. This crosscut was stopped some 10 - 20 feet short of the projected vein located for an unknown reason.

According to W. Scorgie, 1944, 200 tons of high grade ore material were stockpiled from the Okanagan ready for milling. In 1940, production reported to be 5 tons with aggregate value of $750 or $150 per ton.

According to the records of the Winslow Syndicate production was 2.77 tons with aggregate gold content of 10.128 ounces or 3.6 ounces per ton.

The following is a list of samples taken by various engineers:

Sampler	Width	Gold Oz.	Gold $	Silver Oz	Silver $
W. G. Wilkins	Grab at shaft	1.03	36.05		
W. G. Wilkins	Grab at shaft	2.71	94.85		
A. J. Gaul	Grab at shaft	2.22	77.70		
A. J. Gaul	3'0"	5.4	189.00	5	6.45
Emmons, N. (Gov't Eng.)	Specimen	13.7	392.00	67.9	87.50
	3'0"	1.9	66.50	2.9	3.74

MacDougall (1946) states that the vein appeared to pinch about 200 feet north of the workings. He also reports that the vein narrows to the south then gradually widens and can be traced for quite a distance. His sampling shows a decline in gold content from north to south between the two shafts.

The 1914 Minister of Mines report makes the following note: (quote)

"The quartz is mineralized with iron pyrites, which occurs both in bunches and as disseminated particles, and was said to be very rich in gold. To determine this, a sample free from quartz was obtained from the surface cuts, and examined for visible gold, without finding any, but on being assayed proved to contain: Gold 13.7 oz., Silver 7.9 oz. An average sample taken across the vein exposed in the prospect shaft over a width of 3 feet assayed; Gold 1.9 oz., Silver 2.9 oz."

Enderby Vein

Another vein on which some minor work has been done is located several hundred feet northwest of the witness post for the southeast corner post of the Enderby claim.

A quartz vein is reported to be 1.5 to 3 feet in width and on a fairly flat dip to the east. The vein is reported to strike N 55°E. A shallow shaft, filled with ice and snow, was sunk on the dip of the vein. Mineralization in dump material shows heavy galena with minor pyrite mineralization.

The following are a list of samples taken by various people:

Sampler	Width	Gold ozs.	Silver ozs.	Lead %
C.M. & S.	Grab from dump	0.065	35.2	33.5
A. J. Gaul	2'	0.04	46.83	43.43
A. J. Gaul	2.5'	0.07	7.3	
A. J. Gaul	14' trench (100' from shaft)	0.012	2.68	

The sampling indicates more important values in silver and lead. The character of the mineralization and vein is more like the Silver Cup structures than the Winslow-Okanagan-Alice structures.

F. ALICE VEIN SYSTEM

The Alice mineral claim is located in the precipitous glacial cirque area of the upper reaches of a northerly tributary of Laughton Creek. The claim is apparently one of the original claims of the Foggy Day Group and is so described in the Minister of Mines Reports. The Foggy Day Claim lapsed and was subsequently relocated as the Sunshine claim. A three mile trail connects the Alice workings and the Winslow mill.

The claim is underlain by the phyllites of the Sharon Creek formation but in the area of the main Alice vein the phyllite shows more deformation than elsewhere. A number of quartz veins, some of which are mineralized to some extent, have been noted on the property. The Alice vein is fairly consistent over the explored length and may be the same vein as that explored on the adjoining Sunshine claim (Foggy Day vein).

Alice Vein

This vein outcrops over a reported (W. Scorgie, 1945) 1500 feet on the Alice and Ellen Fraction mineral claims. The vein has a width of 2 to 5 feet, strike N 7°E with a dip of from 43° East varying to horizontal. The roll that appears on the dip is due to contortion of the enclosing phyllites, although the vein crosses the plane of schistosity. The average dip is 15°E increasing gradually down dip.

Four adits have explored the structure on the Alice and several pits on the Alice Fraction (Ellen Fraction). To the south, another adit on the Sunshine (Foggy Day) has been driven on a similar vein that may be a continuation of the structure in that direction.

The No. 1 Adit, lying to the east and the lowest of the four on the Alice, was driven as a crosscut for 60 feet and a 15 foot drift. The vein at this point has a width of 1.5 feet and shows only modest gold values.

Sampler	Width	Gold oz/ton	Silver oz/ton
B. W. W. McDougall	1.4'	0.01	Trace
B. W. W. McDougall	1.5'	0.05	1.4

The No. 2 Adit, lying 50 feet northwest of No. 1 and 15 feet higher, was driven as a crosscut for the first 23 feet and a drift for another 25 feet. Here the vein has a width of 2 to 2.5 feet. Following are samples from the vein:-

Sampler	No.	Width	Gold oz/ton	Silver oz/ton
B. W. W. McDougall (1946)	1	2.0	0.50	1.15
	2	2.5	1.14	3.40
	3	2.1	1.04	2.40
	4	1.9	0.19	0.20

The No. 3 Adit was driven from a point 25 feet northwest of No. 2 adit and 5 feet higher. The adit follows the vein for its full length of 35 feet. The vein has a width of 1.2 to 2.0 feet and fairly regular 12° dip easterly to the face where the vein rolls sharply to a steeper dip. Samples from this adit are as follows:-

Sampler	Width	Gold oz/ton	Silver oz/ton
B. W. W. McDougall (1946)	1.2	0.30	0.95
	1.9	1.54	2.6
	Grab samples of sorted rejects	3.50	9.80

The No. 4 Adit is the shortest, 12 feet in length, but the highest (5 feet higher and 35 feet northwest) of the Alice workings. The vein has a width of 8 inches at the face on a 10°E dip.

Sampler	No.	Width	Gold oz/ton	Silver oz/ton
B. W. W. McDougall	1	8"	0.40	0.40

These workings are all on the bed of a steep scarp and are at the head of a long talus slide. The cliff face cuts roughly perpendicularly across the vein giving a cross section to the structure. Most of the information in this report came from B. W. W. McDougall's report as only anomalous information is contained in the several other reports read.

Sunshine Vein (Foggy Day Vein)

Adjoining the Alice claim, the Sunshine claim covers the ground originally staked as the Foggy Day claim. The Sunshine vein has a better width but an overall character very similar to the Alice vein and Scorgie reports that the vein can be traced from one to the other. The vein appears to strike more west to east. The shallow dips at the vein would exaggerate the effect on the strike of any slight undulation or slow change in strike.

One adit was driven on the vein in a northeasterly direction as a drift on the vein for 77 feet. The vein varies from 2 - 5 feet in width. At the face the vein steepens from its usual dip of 12 - 20° E to 43° E. The following are a record of samples taken on the structure.

Sampler	No.	Width	Gold oz/ton	Silver oz/ton
B. W. W. McDougall (1946)	1	3.1	1.22	3.40
	2	4.0	0.06	Trace
	3	2.0	0.04	Trace
	4	2.4	0.15	Trace

A number of shipments are recorded from this vein just prior to 1920.

Date	Weight	Metal Content		
		Gold	Silver	Lead
2/11/17	19,500 lbs.	4.3 oz/ton	13.9 oz/ton	4.6%
17/1/18	wt.not given	37.11 "	118.58 "	
15/11/18	18,524	2.96 "	13.7 "	0.3%
7/3/19	wt.not given	27.416 "	126.89 "	56 lbs.

There does not seem to be any way of telling from which opening the shipments originated but at least a portion came from No. 3 adit on the Alice. A small pile of rejects remain at the portal from a sorting operation. Assays of sacked ore remaining at the property are as follows:-

No.	Gold	Silver
1.	1.90 oz/ton	6.00 oz/ton
2	2.70 "	17.60 "

A grab sample of rejects returned the assays of 3.5 oz/ton and 9.8 oz/ton. These could be considered as picked specimens.

5. DISCUSSIONS OF POSSIBILITIES

General

The properties and in particular the veins have never been subjected to any analytical geological work. No geological study has been made of the various openings that might answer some of the more obvious pertinent questions concerning distribution of values, origin of values, etc. No surveying has ever been done to connect any underground work. There has been no diamond drilling to investigate either values, distribution or structure.

The structure on which the major amount of work has been done and with the greatest potential is the Winslow vein. The Okanagan-Enderby and Alice veins could contribute some high grade to a mill but offer little indication that they could sustain a milling operation by themselves.

Winslow Vein

The Winslow vein has shown an excellent consistancy over the presently explored section. The size of the vein is such that mining costs would be reasonable and tonnage could be developed fairly rapidly. From the available information it appears that the lower level exploration is quite possibly well away from the downward extension of the 'ore shoot' mined in the upper levels. It is probable that the grade would be lower due to the reduction of surface enrichment.

The overburden masks most of the area on strike of the vein and the present workings explore a fairly small portion of the possible dimensions. The lowest, No. 5 adit, is aimed to explore the vein approximately 1000 feet below the outcrop, and is collared in an excellent location for mill construction access and availability of water and timber.

It is possible that any ore bodies developed will be fairly short in lateral extent but may have fair vertical extent. The very high values of the upper part of the vein was probably due to secondary enrichment and it would be unlikely to expect ore of that tenure at depth.

The property warrants a sincere effort to assess the potential of the deposit.

The object of the initial exploration should be to investigate the general surface area at the property geologically and to explore the main Winslow vein in terms of this geological information. In general, the mining and metallurgical problems of the structure and material should be nominal.

Okanagan-Enderby Vein

The values are apparently fairly 'spotty' in the Okanagan vein and the vein itself is reported to lack continuity. The location of the property precludes exploration until late summer and would hinder production. The topography is such that to develop any depth on the vein an extremely long crosscut or shaft would be required.

The property warrants surface prospecting and a study of geology. At some time in the future it may be possible to recover some tonnage of high grade for milling.

Alice Vein

The property is located in very difficult country and at a high elevation. Although the Alice-Foggy Day vein has an apparently considerable length, it lies at a very difficult attitude for its width. It is very difficult to assess the values that may be found within the vein. It would also be very difficult to explore the vein by other than underground work. This would be expensive speculation work, due to location.

6. SPECIFIC CONDITIONS AFFECTING ECONOMICS

Transportation

The transportation problem will be somewhat minimized as it is probable that cyanide would be used to recover the gold values with the resulting gold brick recovery. It could be that a small percentage of sulfide would require shipping in concentrate form.

Sunshine Lardeau Mines Ltd., operating at Comaplix (five miles east of Beaton) shipped lead and zinc concentrates by truck to Nakusp, where the truck boxes were shipped to Trail, with the truck picking up the empty box on its return.

Mining Methods

The structure should present very little problem to mining. The dip of the vein is ideal for gravity mining. The width of the vein is sufficient to allow moderate cost of operation. It is probable that shrinkage methods would be satisfactory.

One problem that may offer some difficulty or increase in the operating cost, is that of the soft sheared phyllite lying between the two parts of the veins. The extent of the problem depends upon the values found in the upper vein (hanging wall section). The water problem might be expected and reduced by drilling and draining.

Power

It is unlikely that sufficient hydro-power would be available for development close to the Winslow. Although there is quite a flow and considerable head available in several creeks, the fluctuation of flow is too great. The possibility exists that in the future the power resources of the Duncan River - Trout Lake system will be developed.

At the present time, diesel power would be necessary.

Topography

The area is considered rough and mountainous. The Silver Cup Mountains form a part of the Selkirk chain. The deep main glacial valleys provide adequate access to most of the area. The subsidiary drainage is consequent and steep with most creeks originating in glacial cirques and flowing down hanging valleys. The valley of Burg Creek is deep and has a steep gradient but the headwaters are quite regular.

Cognizance of the problems associated with operating in such a country can minimize the adverse features and allow operators to capitalize on the favourable features.

CLIMATE

The annual precipitation at Ferguson is 49 inches which includes the water from 22 foot snowfalls. At the Winslow, 4000 feet above Ferguson, the annual precipitation is given as 58 inches and 34 feet of snow.

The area generally is considered a 'snow belt' having early snows and snow remaining to late in June on the upper slopes.

Temperatures are not severe in winter, with Trout Lake open until late in the year.

Year around underground operation is quite practical with proper preparations and facilities. Snow plowing of access roads regularly, and generally daily, is probably necessary.

Chemical Analysis

A chemical analysis of the direct shipping ore is as follows:

Au	0.61 %
Ag	0.8
S	0.8
SiO_2	94.7
Fe	2.3
CaO	0.3

7. GENERAL CONDITIONS AFFECTING ECONOMICS

Vegetation

Timberline is about 7000 feet with several balsam, juniper and alpine groves found on the rounded summits.

Commercial timber is found from Lake level up to about 5000 feet. Varieties include cedar, fir, spruce, pine and hemlock. Above 5000 feet hemlock and balsam predominate.

Ample timber for a mining operation can be obtained locally. Construction lumber and timber would be available from a large mill located at Arrowhead.

Labour

Some local labour would be available from the Beaton area where the Sunshine Lardeau Mines Ltd. operated. Although these men could form the nucleus of a la force, general labour would have to be imported.

Water

Burg Creek would have sufficient water for any probable mining and milling operation.

Communication

As the area is not serviced by telephone, it would be necessary to employ a radio telephone system tied to the Revelstoke exchange of the B. C. Telephone system.

JAMES MILLAR & ASSOCIATES LTD.

"J. F. V. Millar"

J. F. V. Millar, P. Eng.

December 11, 1963.

JFVM/gs

APPENDIX 1

BIBLIOGRAPHY

1. MINISTER OF MINES REPORTS

	Year	Page
Winslow	1904	118
	1906	138
	1908	101
	1909	101
	1911	154
	1914	309
	1933	216
	1934	426
	1938	A 35
	1939	A 38, 78
	1940	25, 64
	1941	26, 62
Okanagan, Enderby	1914	310
	1915	450
	1918	156
Alice (Foggy Day)	1917	165
	1918	157
	1921	101
	1922	217
	1923	234
	1930	267
	1931	151
	1934	E 56

2. MEMOIR 161 - Lardeau Map Area, British Columbia - Walker. Bancroft & Gunning

3. BULLETIN 45 - Geology of the Ferguson Area - Fyles and Eastwood

4. ENGINEERING & PROPERTY REPORTS:

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Report of W. Scorgie, Mine Manager	
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Report of B. W. W. McDougall, P. E.	November 12, 19
Report of W. Scorgie, Mine Manager	April 25, 1947
Report of B. W. W. McDougall, P. E.	September, 1955

5. MISC.

Ore Settlement Returns 1938, 1939, 1940.

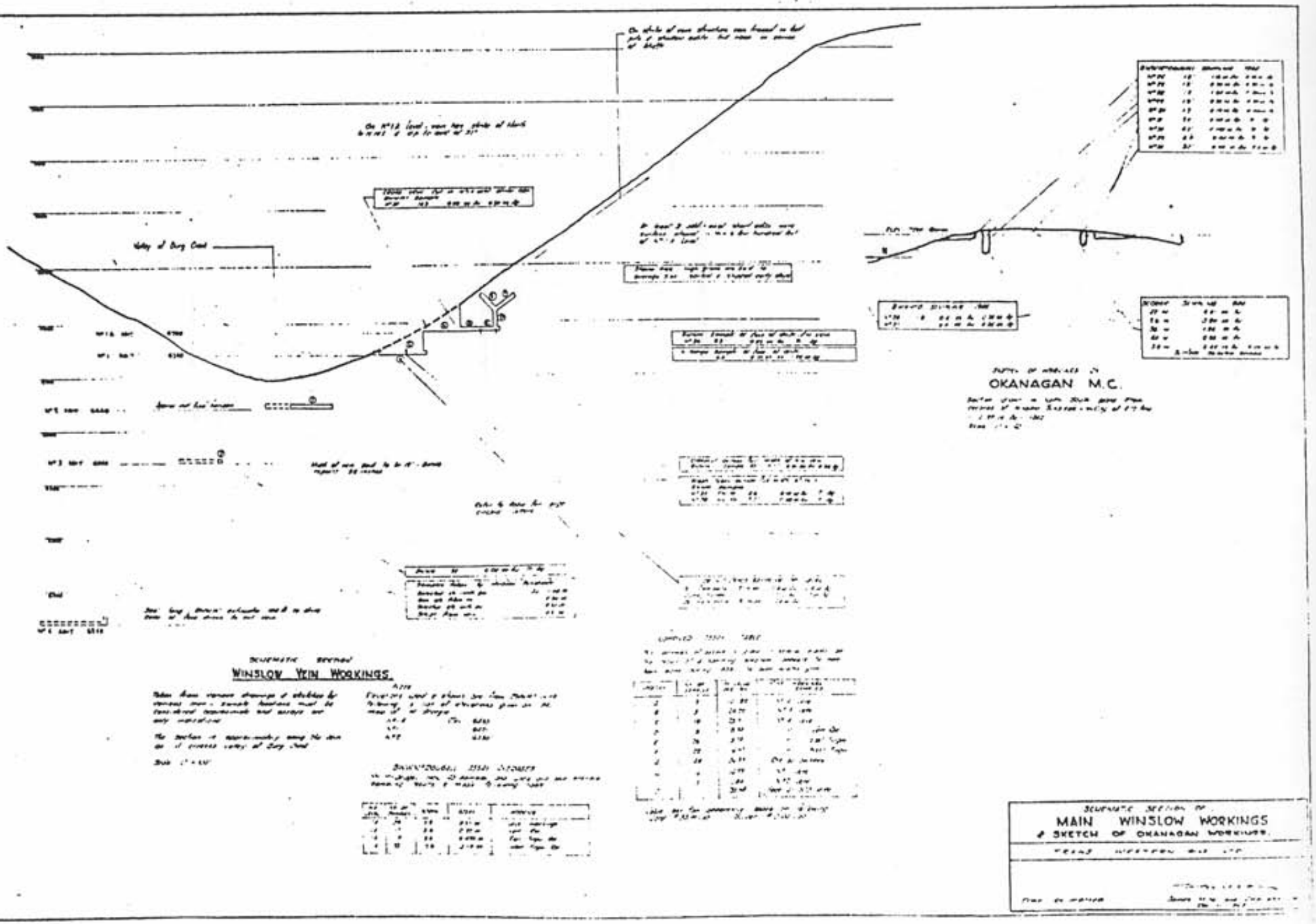
December 11, 1963

CERTIFICATE

This is to certify that the writer, James F. V. Miller, is a graduate in mining engineering from the University of British Columbia, a registered professional engineer with the Association of Professional Engineers in Alberta and British Columbia, and a Consulting Mining Engineer with offices at 302, 627 - 8th Ave. S. W., Calgary, Alberta.

Further, this will certify that I have no financial or other interest in the mineral claims covered by this report.

" J. F. V. Millar"
J. F. V. Millar



OKANAGAN M.C.

SCHEMATIC SECTION OF
MAIN WINSLOW WORKINGS
& SKETCH OF OKANAGAN WORKINGS.

APPENDIX III

GEOANALYTICAL SERVICES WESTERN, LTD.

LB 7.. 0019

SAMPLE TYPE: _____

PAGE 2

LAB No.	CLIENT No.		Au ppb		Cu ppm		Pb ppm		Zn ppm		Ag ppm				
1	LB 9 20		40		26		10		140		< 0.2				
2	21		20		44		18		155		< 0.2				
3	22		20		50		10		135		< 0.2				
4	23		30		64		18		145		< 0.2				
5	24		10		76		15		130		< 0.2				
6	25		30		44		12		130		< 0.2				
7	26		20		32		15		120		< 0.2				
8	27		20		17		11		115		< 0.2				
9	28		20		52		6		175		< 0.2				
0	29		< 10		30		15		140		< 0.2				
1	30		10		40		15		120		< 0.2				
2	31		30		42		12		140		< 0.2				
3	32		30		36		11		140		< 0.2				
4	33		20		33		9		135		< 0.2				
5	34		10		55		8		90		< 0.2				
6	35		10		56		10		135		< 0.2				
7	RIT 2		10		38		39		95		3.7				
8	4		10		28		34		80		0.3				
9															
0															

GEO ANALYTICAL SERVICES (WESTERN) LTD.

B #

SAMPLE TYPE:

PAGE 3

LAB No.	CLIENT No.		Au ppb		Cu ppm		Pb ppm		Zn ppm		Ag ppm				
1	RIT 6		10		64		32		85		0.3				
2	8		<10		120		33		65		0.7				
3	10		10		18		10		35		0.7				
4	13		10		36		23		80		1.1				
5	15		10		50		32		95		0.5				
6	17		10		46		50		80		0.3				
7	BL2 BL0 0+00 E		<10		30		17		85		0.5				
8	0+25		10		31		190		140		0.6				
9	0+50		10		34		16		105		0.5				
0	0+75		10		50		375		185		1.1				
1	1+00		10		48		28		160		<0.2				
2	1+25		20		69		30		165		<0.2				
3	1+50		20		101		26		300		0.3				
4	1+75		<10		69		90		610		0.2				
5	2+00		20		77		30		290		<0.2				
6	2+25		10		35		15		135		0.3				
7	2+50		<10		28		14		95		<0.2				
8	2+75		<10		47		16		145		<0.2				
9															
0															

GEO ANALYTICAL SERVICES (WESTERN) LTD.

JOB #: 8079

SAMPLE TYPE:

PAGE 4

LAB No.	CLIENT No.		Au ppb		Cu ppm		Pb ppm		Zn ppm		Ag ppm				
1	BL2 BL0 - 3+00 E		20		45		12		130		0.3				
2	3+25		10		46		8		25		0.2				
3	3+50		10		24		24		90		0.4				
4	3+75		<10		28		17		90		0.4				
5	4+00		10		20		22		70		0.2				
6	4+25		<10		28		14		75		<0.2				
7	4+50		<10		46		<1		95		<0.2				
8	4+75		10		22		10		35		<0.2				
9	5+00		10		10		4		15		<0.2				
0	BL2 BL0 0+25W		<10		71		130		540		0.7				
1	0+50		10		46		210		340		1.0				
2	0+75		<10		20		12		75		0.2				
3	1+00		10		29		22		130		<0.2				
4	BL2 L 0+00E 0+25S		10		64		70		290		0.7				
5	0+50S		10		39		45		135		0.6				
6	0+75S		10		52		1200		205		9.8				
7	1+00S		<10		7		55		30		0.4				
8	1+25S		10		32		39		175		0.6				
9															
0															

FORM NO. 003

GEO ANALYTICAL SERVICES (WESTERN) LTD.

JOB #: 90 79

SAMPLE TYPE:

PAGE 5

LAB No.	CLIENT No.		Au ppb		Cu ppm		Pb ppm		Zn ppm		Ag ppm				
1	BL2 L 0+00 E 1+50 S		50		36		65		240		0.4				
2	L 2+00 E 0+25 S		20		35		14		120		<0.2				
3	0+50		30		88		46		140		0.3				
4	0+75		30		78		53		165		0.7				
5	1+00		< 10		33		17		95		0.2				
6	1+25		20		30		61		110		0.3				
7	1+50		20		28		52		105		0.3				
8	BL4+00 E 0+25 S		10		73		31		160		<0.2				
9	0+50		20		29		25		115		0.3				
0	0+75		30		35		45		135		0.9				
1	1+00		20		30		18		85		0.2				
2	1+25		30		24		22		80		0.4				
3	1+50		20		20		8		55		0.2				
4	L2+00 W 0+25 S		20		24		14		120		0.3				
5	0+50		30		86		10		165		<0.2				
6	0+75		20		10		20		45		<0.2				
7	1+00		30		22		20		115		0.2				
8	1+25		30		32		25		140		<0.2				
9															
0															

FORM NO. 003

GEO ANALYTICAL SERVICES (WESTERN) LTD.

JOB #: 90-79

SAMPLE TYPE:

PAGE 6

LAB No.	CLIENT No.		Au ppb		Cu ppm		Pb ppm		Zn ppm		Ag ppm				
1	BL2 L2+00W 1+50S		20		30		20		205		0.5				
2	L4+00W 0+25S		50		24		24		90		0.2				
3	0+50		40		24		20		85		0.3				
4	0+75		20		32		21		105		0.3				
5	1+00		30		25		22		70		0.2				
6	1+25		30		40		44		95		0.2				
7	1+50		N.S.		N.S.		N.S.		N.S.		N.S.				
8	L6+00W 0+25S		40		25		2		85		<0.2				
9	0+50		40		37		4		95		<0.2				
0	0+75		30		28		6		120		<0.2				
1	1+00		40		28		8		130		0.2				
2	1+25		30		52		8		120		<0.2				
3	1+50		30		14		10		35		0.2				
4	L0+00 0+25N		60		39		20		140		0.2				
5	0+50		50		16		4		15		0.2				
6	0+75		50		22		13		40		<0.2				
7	1+00		50		25		14		95		<0.2				
8	1+25		30		26		11		45		<0.2				
9															
0															

FORM NO. 003

GEO ANALYTICAL SERVICES (WESTERN) LTD.

JOB #: 8079

SAMPLE TYPE:

PAGE 7

LAB No.	CLIENT No.		Au ppb		Cu ppm		Pb ppm		Zn ppm		Ag ppm				
1	BL 2 L0+00 1+50 N		30		24		11		38		< 0.2				
2	L2+00 W 0+25 N		30		20		12		35		0.3				
3	0+50		30		20		13		60		< 0.2				
4	0+75		30		18		14		30		0.5				
5	1+00		40		31		14		40		0.3				
6	1+25		20		24		15		75		0.2				
7	L2+00 E 0+25 N		30		15		17		80		< 0.2				
8	0+50		20		22		16		70		< 0.2				
9	0+75		20		40		30		105		< 0.2				
0	1+00		20		19		14		30		< 0.2				
1	1+25		10		47		27		115		< 0.2				
2	1+50		20		31		5		85		< 0.2				
3	L4+00 W 0+25 N		30		42		24		100		< 0.2				
4	0+50		30		12		6		< 1		< 0.2				
5	0+75		30		15		10		55		< 0.2				
6	1+00		20		26		4		110		< 0.2				
7	1+25		30		46		18		120		< 0.2				
8	1+50		20		20		20		80		0.2				
9															
0															

FORM NO. 003

GEO ANALYTICAL SERVICES (WESTERN) LTD.

JOB #: 8079

SAMPLE TYPE:

PAGE 8

LAB No.	CLIENT No.		Au ppb		Cu ppm		Pb ppm		Zn ppm		Ag ppm				
1	BL 2 L4+00E 0+25N		20		180		10		80		< 0.2				
2	0+50		30		18		12		25		0.2				
3	0+75		30		42		10		60		< 0.2				
4	1+00		40		55		5		90		< 0.2				
5	1+25		10		75		12		140		< 0.2				
6	1+50		20		16		14		30		0.5				
7	L6+00W 0+25N		10		20		6		75		< 0.2				
8	0+50		30		75		4		90		< 0.2				
9	0+75		20		25		8		85		< 0.2				
0	1+00		30		36		4		85		< 0.2				
1	1+25		10		36		10		70		< 0.2				
2	1+50		20		188		5		75		< 0.2				
3	TR 01		20		46		28		68		< 0.2				
4	02		10		80		6		90		< 0.2				
5	03		20		85		16		140		< 0.2				
6	04		20		75		65		60		0.4				
7	05		10		55		24		115		< 0.2				
8	06		20		33		10		100		< 0.2				
9															
0															

FORM NO. 003

SAMPLE TYPE:

LAB No.	CLIENT No.		Au ppb		Cu ppm		Pb ppm		Zn ppm		Ag ppm				
1	BL2 - BL0 1+25W		90		22		36		19		0.3				
2	1+50W		120		33		59		64		0.6				
3	1+75W		130		29		45		72		0.4				
4	2+00W		30		30		23		51		0.4				
5	2+25W		100		22		32		45		0.5				
6	2+50W		60		20		25		40		0.3				
7	2+75W		50		23		19		58		0.1				
8	3+00W		70		52		2		83		0.2				
9	3+25W		50		22		17		68		<0.1				
0	3+50W		60		26		19		20		0.3				
1	3+75W		30		51		18		90		0.2				
2	4+00W		10		12		21		42		0.3				
3	4+25W		10		22		33		63		0.2				
4	4+50W		20		17		15		38		0.3				
5	4+75W		90		26		8		47		0.2				
6	5+00W		160		38		5		78		0.2				
7	5+25W		120		36		9		89		0.2				
8	5+50W		60		31		8		53		0.2				
9															
0															

FORM NO 003

GEO ANALYTICAL SERVICES (WESTERN) LTD.

JOB #: 8079

SAMPLE TYPE:

PAGE 15

LAB No.	CLIENT No.		Au ppb		Cu ppm		Pb ppm		Zn ppm		Ag ppm				
1	BL2 BLO 5+75W		50		29		9		73		0·2				
2	6+00W		100		53		2		85		0·2				
3	6+25W		40		35		21		65		0·2				
4	6+50W		50		24		16		74		0·2				
5	6+75W		70		67		10		84		0·2				
6	7+00W		90		75		96		99		0·2				
7	RIT 1		70		56		82		79		0·2				
8	RIT 3		90		18		51		76		0·2				
9	RIT 5		60		120		107		104		2·3				
0	RIT 7		80		500		69		70		0·5				
1	RIT 11		40		100		57		74		1·1				
2	RIT 12		40		63		91		83		0·3				
3	RIT 14		40		25		63		51		0·7				
4	RIT 16		30		63		121		55		0·5				
5	RIT 9		40		10		50		2K		0·3				
6	UB9-2		40		90		30		118		<0·1				
7	UB9-3		30		80		22		135		0·2				
8	UB9-4		60		45		41		150		0·1				
9															
0															

FORM NO. 003

To: GOLDEN RULE RESOURCES,
100, 1300 – 8th Street S.W.,
Calgary, Alberta

cc: Taiga Consultants

File No. 20341
Date October 11, 1980
Samples Chip

Certificate of ASSAY

LORING LABORATORIES LTD.

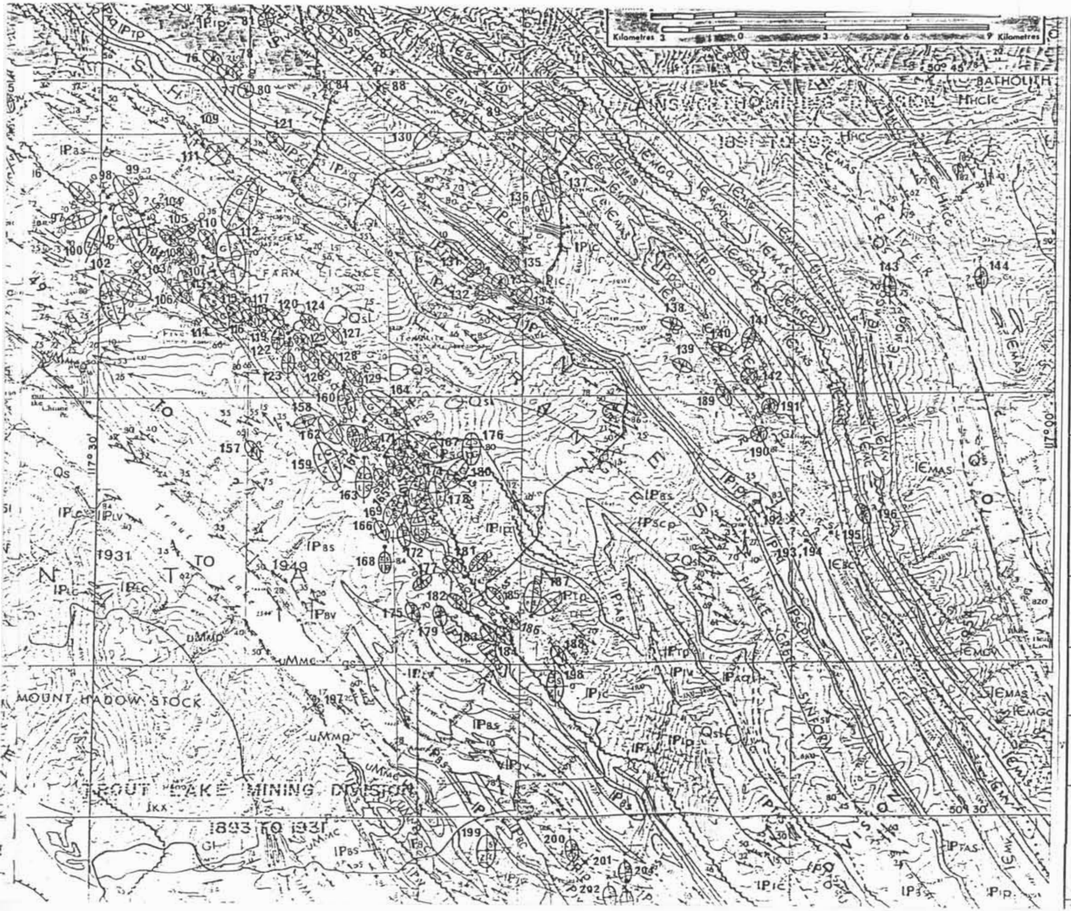
SAMPLE No.	OZ./TON GOLD	OZ./TON SILVER
~~35133~~ RD-21-1	.130	~~.20~~
35134 RD-25-1	.010	.64
~~19553~~	1.480	~~1.78~~
19554 W-4	.090	.36
19555 W-5	.030	.06
19556 W-6	.040	.18
~~19557~~	~~Trace~~	~~.18~~
~~19558~~	~~Trace~~	~~.14~~
19559 W-3	Trace	.16
~~19560~~	~~Trace~~	~~.06~~
19561 W-7	Trace	.64
~~19562~~	~~.100~~	~~2.54~~
19563 RS-25-3	.020	.02
19564 RS-24-5	.160	.44
19565 RS-22-7	Trace	.12
19566 RS-25-2	.040	.18
19567 RS-26-2	.010	.12
19568 RS-26-1	Trace	.12
19569 RS-26-3	.480	.44
19570 TE-22-2	Trace	.16
~~19571~~ RD-25-4	.210	.06

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES . . . .

Assayer

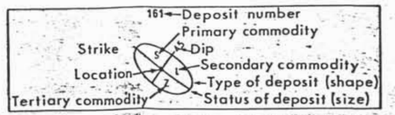
:jects Retained one month.

Pulps Retained one month unless specific arrangements ıde in advance.



	SILVER QUEEN AND SILVER KING	AG PB
86	OLD GOLD	AG PB
87	SILVER LEAF GROUP	PB AG
88	EDNA AND GRACE C	AG PB
89	BADSHOT	AG PB
90	FERN AND EVELYN	MO ZN WO
91	ROYAL CANADIAN	AU
92	GREAT WESTERN GROUP	PB
93	(OCCURRENCE)	B
94	MAGGIE MAY	PB
95	MIKE	PB ZN AG
96	BEATRICE	AG ZN PB AU
97	ST. ELMO	PB AG ZN
98	WOODS	FE
99	BLUE BELL	PB AG ZN
100	GREAT NORTHERN	PB AG ZN
101	TRUE FISSURE (L.1097)	AG PB ZN AU CU
102	BROADVIEW	PB ZN AG AU CU
103	BRUCE	AU
104	TONAWANDA	CU
105	BALTIMORE	AG PB ZN AU
106	ABRAHAMSON GROUP	AG AU PB
107	NEW ZONE COPPER	CU NI
108	IXL GROUP	AG PB AU
109	HORNE GROUP	AG PB
110	MAY BEE	AG PB ZN
111	MUSKATEER	FE
112	NETTIE L	AG PB ZN AU CU
113	BROW	
114	AJAX	AG AU ZN PB
115	RAVEN	AG PB ZN
116	FLORENCE	
117	GLOBSCAP	PB AG
118	JUMBO GROUP	G PB AU
119	KOOTENAY GROUP	
120	BLACK EAGLE	AG
121	COPPER MOUNTAIN	CU
122	CANADIAN BOY	AG PB ZN
123	CANADIAN	PB
124	GOLD BUG	AG PB ZN AU
125	RAMBLER	AG PB ZN AU
126	DAVIE GROUP	PB ZN
127	PARRSBORO	AG PB
128	SHARON	AG PB
129	YUILL	AG PB ZN
130	LADE	AU
131	MOLLIE MAC	AG PB ZN CU AU
132	WHITE QUAIL	PB AG ZN AU
133	HIDDEN TREASURE	AG PB ZN
134	INDEX	PB
135	SILVER CHIEF	PB AG
136	MOHICAN	AG PB ZN
137	BLACK PRINCE	AG PB
138	WAGNER GROUP	AG PB ZN
139	LAURA J. AND WARD	AG PB
140	DEATH ON THE TRAIL, LITTLE TOM	AG PB
141	RED ELEPHANT	AU
142	BANNOCKBURN	AG PB ZN
143	REVO	B CU
144	IRENE	AG PB CU
157	COPPER QUEEN	AG PB ZN
158	CALIFORNIA	PB
159	WINSLOW	AU AG PB ZN CU
160	TOWSER	AG PB ZN A
161	[illegible]	[illegible]

163	OKANAGAN	AU AG PB ZN
164	SILVER CUP	AG PB ZN AU
165	CRESCENT	AG PB AU
166	MABEL GROUP	AG PB
167	TRIUNE	AG AU PB ZN
168	ALPINE	AG AU PB ZN
169	FOGGY DAY	AU AG PB ZN CU
170	CHANCE	AG AU PB ZN CU
171	MORNING STAR	AG AU PB
172	ALICE	AU
173	CROMWELL	AU AG ZN PB CU
174	IXL	AG AU PB ZN
175	GOLDEN CROWN	AU AG PB
176	NOBLE FIVE	AG AU PB ZN
177	JEWEL	AG AU PB
178	H.Y.M.	AG PB
179	ARALLU	CU
180	SILVER BELT	AU AG PB
181	HERCULES	AG PB ZN CU
182	SKYLINE	AU AG PB
183	SILVER PLATE	AG PB
184	SILVER TRAY	AG PB
185	BONANZA GROUP	AU AG
186	BUTTE GROUP	AG AU PB ZN
187	AMERICAN	AG PB
188	KOOTENAY BELLE	AG PB
189	FRANCIS JEWELL	AG PB
190	ABBOTT	AG PB ZN CU
191	SUPERIOR	AG PB ZN
192	J.C.	PB
193	SHOWSHOE GROUP	CU
194	RUSTY AXE	CU
195	GERTRUDE	AG PB
196	MABEL, MAUDE * NO.2	AU CU AG
197	YAMHILL	AU CU
198	FIDELITY	AG PB ZN AU
199	MAGNET GROUP	AG PB ZN
200	HANDY	AU AG CU
201	MORNING	
202	GLENGARNOCK	AU ZN
203	MAGGIE MAY GROUP	AG PB



STATUS OF DEPOSIT (1975)	Vein
Showing	○
Prospect	○
Producer, Past Producer - 1 - 100 Tons -	○
100 - 10000 Tons	○
10000 - 100000 Tons	○
> 100000 Tons	○

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 8642

SASKO-WAINWRIGHT OIL & GAS CO. LTD.

MINERAL DEPOSITS

WINSLOW GOLD PROJECT

DATE: JUNE 1980 | FIGURE NO. 5