

79-#133-#7243

GEOLOGICAL REPORT

on the

ELM CLAIM GROUP

KAMLOOPS MINING DIVISION

921/15W

Lat.  $50^{\circ}58'$

Long.  $120^{\circ}52'$

by

JAY D. MURPHY, P. ENG.

OWNER AND OPERATOR

1978-9-15



Previous work on the claim group included driving five short adits, drilling at least three diamond drill holes, eight percussion drill holes, and several geochemical surveys involving both stream sediment and soil sampling programmes. The most recent work reported was done by Craigmont Mines in 1976 and included eight percussion drill holes totaling 625 m.

Mineralization is associated with a small granite body of Late Cretaceous or Tertiary age intrusive into Cretaceous conglomerate.

The ELM claim group was prospected and mapped geologically. The results of the work constitute the subject of this report. For mapping control an enlargement of a portion of air photo BC5742 No. 0119 to a scale of approximately 1:7000 was used. Purpose of the mapping was to obtain a comprehensive overview of the relationship of various mineralized veins to the intrusive body to assist in extending known mineralization and locating new economic structures.

#### SUMMARY AND CONCLUSIONS

The ELM claim group contains both lead-silver and molybdenum mineralization of potential importance. Lead-silver mineralization occurs as coarse argentiferous galena in a narrow quartz vein having only one small exposure in outcrop. Grade is approximately 0.3% Pb. and 5 oz/ton Ag. over a vein width of 0.5 metres. This is well below economic values but provides encouragement to explore for better grade sections in the known vein and for similar structures that may be present but do not appear in outcrop.

Molybdenite mineralization is associated with a series of narrow quartz veins in a talcose shear zone exposed in McGee Creek. There is some strong but spotty mineralization yielding assays up to 0.5% Mo. Chip samples across the zone gave a weighted average of only 0.07% Mo. over 7.1 m. This included unsampled widths of aplite assumed to contain no values. The irregular nature of the molybdenite mineralization combined with the difficulty in cutting good chip samples across the quartz veins may have downgraded the assays to some extent. Nevertheless there is sufficient encouragement to explore the shear zone at depth with a limited drill programme.

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7243

## INTRODUCTION

The ELM Group of eight claims, located under the 2 - Post system, is centred on the junction of Criss and McGee Creeks, 25 km almost due north of Savona on the Trans Canada Highway and 41.5 km by road. Access from Savona is via the Trans Canada Highway 9.3 km west to Deadman Creek road. This is followed north for 12.4 km, the first 5 km being hard surfaced, the balance well maintained gravel. From Deadman Creek road an active logging road branches northeast for 10.8 km to Criss Creek where a good camp site is located just north of the bridge. From here a little used logging road leads north, then southeast to the ELM claims, a distance of 9 km. The area has been partially logged, mainly on the west side of Criss Creek, but also on claim no. 7 east of the creek. The resulting network of logging trails provides good access within the claims. The area is now extensively used for cattle grazing during the snow free period.

Elevations within the claims vary from 900 to 1100 metres. Relief is generally moderate. One exception is the northwest trending ridge along the southwest side of the claim group which slopes steeply south-east to Criss Creek, a drop of over 200 metres. The area is well drained by Criss Creek, a fast flowing stream draining southwest to Deadman River, which in turn flows south to the Thompson River.

Bush is fairly open and park like, with negligible underbrush even where tree growth is thickest. Topography is subdued with relatively gentle slopes except immediately adjacent to Criss Creek where near vertical rock scarps up to 30 metres, but usually much less, are common.

Rock exposures are confined mainly to the channels and banks of Criss and McGee Creeks. Elsewhere, overburden predominates and rock exposures are restricted to ridges and road cuts.

Overburden varies from a thin mantle of detritus from the current erosion cycle to remnants of glacial outwash deposits 5 to 10m thick as seen at several locations along Criss Creek. These remnants vary from silt grade to boulders and exhibit distinct cross bedding.

Government reports indicate that mineralization on Criss Creek has stimulated exploration activity since at least as early as 1893. Initial work was done for placer gold, later, mercury and lode gold. More recently, molybdenum has been the metal of interest.

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The ELM claim group contains both lead-silver and molybdenum mineralization of potential importance. Lead-silver mineralization occurs as coarse argentiferous galena in a narrow quartz vein having only one small exposure in outcrop. Grade is approximately 0.3% Pb. and 5 oz/ton Ag. over a vein width of 0.5 metres. This is well below economic values but provides encouragement to explore for better grade sections in the known vein and for similar structures that may be present but do not appear in outcrop.

Molybdenite mineralization is associated with a series of narrow quartz veins in a talcose shear zone exposed in McGee Creek. There is some strong but spotty mineralization yielding assays up to 0.5% Mo. Chip samples across the zone gave a weighted average of only 0.07% Mo. over 7.1 m. This included unsampled widths of aplite assumed to contain no values. The irregular nature of the molybdenite mineralization combined with the difficulty in cutting good chip samples across the quartz veins may have downgraded the assays to some extent. Nevertheless there is sufficient encouragement to explore the shear zone at depth with a limited drill programme.

### RECOMMENDATIONS

1. Conduct a VLF survey using the Ronka 16 or equivalent instrument to define and extend both the lead-silver and molybdenum mineralization. Flagged lines should be run across strike at no more than 30 m spacing with reading taken at every 15 m.
2. Site two drill holes on the McGee Creek showing to cut the hanging wall of the shear about 20 m below surface. Holes to be 25 m apart along strike drilled at minus  $45^{\circ}$  to a depth of approximately 50 m to completely transect the shear.
3. Site two similar holes to test the lead-silver vein of claim ELM No. 1.
4. Subsequent work, would be contingent on results of recommendations 1, 2 and 3.

### GENERAL GEOLOGY

The area north of Kamloops Lake is underlain mainly by Triassic Nicola volcanics and extensive flows and volcanoclastics of Pliocene or Pleistocene age. The later units were formerly included with the early Tertiary Kamloops Group. Between these principal units a band of sedimentary rocks up to four km wide extends in a gentle arc from just north of the ELM Group, south to Copper Creek on Kamloops Lake. Age of these sediments, mainly conglomerate, has not been determined precisely due to a lack of fossil evidence, but is generally regarded as Late Cretaceous or Early Tertiary. The sedimentary band is intruded by a number of small granitic plugs of Tertiary age called the Copper Creek Intrusions.

The sedimentary rocks overlie the Nicola Volcanics unconformably and are in turn unconformably overlain by the late Tertiary volcanic rocks.

### PROPERTY GEOLOGY

The subject claim group is underlain almost entirely by coarse conglomerate. This sedimentary unit is cut by a granite plug of the Copper Creek Intrusions centred on Criss Creek, a small body of diorite on claim No. 3 and numerous fine grained trap dikes also of intermediate composition. Plate No. 1 illustrates the relationships between the various units.

### STRATIGRAPHY AND PETROGRAPHY

Following is a brief description of the various map units;

#### (1) Conglomerate

This unit is by far the commonest rock type within the Criss Creek valley and adjacent ridges. Coarse sandstone up to a few metres thick was seen several kilometres south of the claims area but none of the shales were seen that reportedly constitute part of the sedimentary sequence. Narrow sandstone bands up to a few tens of centimetres thick occur infrequently throughout the conglomerate, including the ELM group, and are useful in measuring bedding attitudes which otherwise are difficult to determine. In the claims area conglomerate has a general northwest trend and steep northeast dips but farther south low north-east dips were noted. Total thickness of this unit is not known but must be in the order of several hundred metres.

Conglomerate outcrops usually exhibit rounded erosion surfaces rusty brown in color, but occasionally form scarps up to 10 m high. Weathering produces a gravel like detritus.

Conglomerate is composed mainly of pebble and gravel size fragments but abundant cobble size material is nearly always present, together with the occasional boulder. Interstices contain a fine grained siliceous cement. Constituent fragments are also highly siliceous resistant types i.e. granites, cherts, quartzite etc.

In addition to the normal conglomerate described above some altered varieties also occur. These are restricted in distribution to the contact zones of granitic intrusives and therefore are seen mainly on the ELM group and along a large dike like diorite intrusive about a kilometre west of a similar intrusive within the claims. For mapping purposes this material was

lumped together as "sheared Conglomerate" (Plate No. 1) but in fact varies from a strongly foliated chloritic variety exposed in McGee Creek, to a tough massive indurated rock that occurs near the contact of diorite intrusives. The indurated variety of conglomerate has been altered to a nondescript, massive, fine grained cherty looking rock, purplish brown to buff on fresh surfaces and weathering to a dark rusty brown. This rock is extremely hard and tough, breaking with difficulty along rough, jagged fracture surfaces. This type appears to have been almost completely recrystallized, nearly obliterating original structures. Careful examination will usually reveal the occasional rounded fragment, providing a clue to the sedimentary origin.

A second important variety of altered conglomerate is a sheared chloritic unit heavily impregnated with dolomite stringers. Best exposures occur along the northwest flowing section of Criss Creek and downstream around the sharp bend where three short adits have been driven. This rock type bears little or no similarity to conglomerate but in the outcrops around the adits the rock is seen to change from a chloritic schist to sheared conglomerate with recognizable rounded fragments, to unsheared normal conglomerate as one moves downstream from the first to the final adit. Dolomitic conglomerate, a third variety, is typically pale green on fresh surfaces where the rock can be seen to consist of alternating chloritic and dolomitic bands. Weathered surfaces are commonly rusted. Composition is estimated to be 80% dolomite, 15% chlorite, less than 5% mariposite and less than 5% fine grained pyrite.

The strong shear zone exposed in McGee Creek (Plate No. 2) is also considered to be sheared conglomerate, but the alteration is such that it is impossible to tell what the original rock might have been. This zone contains both strongly sheared dolomite-chlorite rock similar to that described above, and a dark buff, strongly talcose rock. Both units are heavily impregnated with coarse to fine grained pyrite. The talcose blocks may represent fragments of a mafic dike that intruded the shear zone prior to final movement, since it is difficult to explain how this material could have derived from conglomerate.

(2) Granite (Copper Creek Intrusion)

The main body of granite in the claims area consists of a small boss roughly 500 m in diameter centred on Criss Creek. Similar material



is thought to underlie the adit area on claim No. 1, though outcrops are small and scarce. Granite contacts are poorly exposed in all cases, consequently the outlines shown on Plate No. 1 are interpretive and subject to revision. In addition to the main granite intrusive there is evidence that fine grained, dike like bodies extend several hundred metres into the adjacent sediments. 1

Normal granite is weakly porphyritic and monotonously uniform and massive in appearance. Color is light pinkish grey. Texture is coarsely porphyritic with scattered pink orthoclase phenocrysts up to 1.5 cm set in a medium grained holocrystalline hypidiomorphic groundmass. Biotite is the only ferromagnesian mineral observed. The porphyritic character of granite is not usually conspicuous, even on weathered surfaces. The rock has a dull lifeless appearance as free quartz is not abundant. Composition is estimated as follows;

Quartz	-	10 - 15%
Biotite	-	10%
Orthoclase	-	70 - 75%

Aplitic phases of the granite were noted, mainly along McGee Creek, but also in scattered outcrops well removed from the main intrusive. This rocktype is also pinkish grey in color and weakly porphyritic with scattered, medium grained quartz phenocrysts in a fine grained allotriomorphic matrix. Pyrite is usually present in significant amounts giving rusty weathered surfaces. Composition is estimated as follows;

Quartz	-	5 - 10%
Ferromagnesian	-	5%
Pyrite	-	5% -
Orthoclase	-	75 - 80%

Aphanitic phases, termed felsites, are also found in minor amounts associated with aplite. This rock is medium grey on fresh surfaces weathering to a dark chocolate brown. Alkali feldspar is the major constituent. Pyrite is present in hairlike veinlets and scattered blebs to an amount estimated at less than 5%.

### (3) Diorite

This rock is restricted in distribution to a small dike or plug about 80 by 150 m located in claim No. 3 and a similar dike like body about one kilometre west having a length of about 400 m. Both bodies form topographic highs partially bounded by steep scarps up to 20 m high.

Diorite is a dark grey green, massive, uniform rock with a medium grained

holocrystalline hypidiomorphic texture. Composition is estimated as follows;

Quartz	less than 1%
Magnetite	5%
Biotite	10%
Hornblende	40%
Plagioclase	45%

Distinctive features are scattered, coarse grained tabular biotite flakes, prismatic hornblende crystals and strong magnetism.

#### (4) Trap Dikes

These dikes have a wide distribution throughout the general area but are particularly concentrated near the small diorite intrusion on ELM No. 3. Dikes vary in width from 0.5 m to about 20 m and attitudes vary from near vertical to almost flat. Strikes are nearly as variable but in the claim groups have a general west northwest trend, suggesting that these intrusives may be controlled in part by bedding in the enclosing conglomerate and that some may be sills. Many dikes are exposed in Criss Creek where they frequently stand out as prominent ridges above the sediment and may in fact partly control the zig zag pattern of the creek.

Trap dikes are intermediate in composition and are considered genetically related to the small diorite intrusives previously mentioned. There is considerable variety in appearance but all are fine grained and dark green to dark grey in color. Typically, this rock type has an equigranular allotriomorphic texture. Weathered surfaces are dark grey and frequently have a rough jagged appearance. Trap is a hard, tough rock and breaks with great difficulty along sub conchoidal fracture surfaces. This rock has a definite magnetism and usually contains minor disseminated pyrite. Some varieties contain scattered, medium grained quartz phenocrysts in a fine grained matrix. Composition is estimated as follows;

Quartz	less than 5%
Ferromagnesian (amphibole)	35%
Plagioclase feldspar	60%
Pyrite	5%

#### (5) Quartz Veins

These structures exhibit great variety in size, attitude, appearance and mineralization. Widths vary from a few centimetres to over 10 m. Trends are predominantly west northwest, though there are notable exceptions. Dips are normally steep but some moderate dips are also seen. The two wide veins

explored by adits on EIM No. 1 are white, barren looking "bull" quartz with coarse scattered pyrite. The northeast striking vein on the same claim is white massive quartz with a rusty red staining on weathered surfaces. Coarse argentiferous galena is the principal metallic mineral.

In McGee Creek both white quartz and blue grey quartz veins occur together, in fact one vein may contain both varieties. Both are well mineralized with pyrite and both carry molybdenite in significant amounts though the better, more uniform mineralization, occurs with the blue grey variety.

#### (6) Dolomite Stringers

Sheared conglomerate along Criss Creek, as described above, has been pervasively injected with a fine stockwork of dolomite stringers. Similar material is found associated with a small aplite intrusion about a kilometer upstream outside the claim area. This material contains disseminated pyrite mineralization. Previous work indicates that important lead-zinc-silver gold mineralization is also associated with this material close to Criss Creek but nothing of interest was seen in this examination.

#### GEOLOGIC STRUCTURE

Evidence of fault movement within the EIM claim group includes exposures of strongly sheared, contorted rock, linear scarps and depressions, and the apparent lateral offset of the granite intrusive and quartz veins. Furthermore, in the section of Criss Creek contained by claim No. 3 none of the many trap dikes exposed can be traced across the creek, except near the southwest boundary of the claims. This may be partly due to poor rock exposure, but certainly not in every case. Local movement is interpreted to have taken place along near vertical northwest and northeast trending planes. The intersection of two of these structures may have controlled the emplacement of the small diorite intrusive. The northwest striking fault, the trace of which is interpreted to follow a linear depression on claim No. 1, appears to truncate the quartz vein exposed at the adjacent adit and to have offset the southwest end of the granite intrusive by some 175 metres. Assuming the quartz veins exposed by two adits on claim No. 1 represent the same

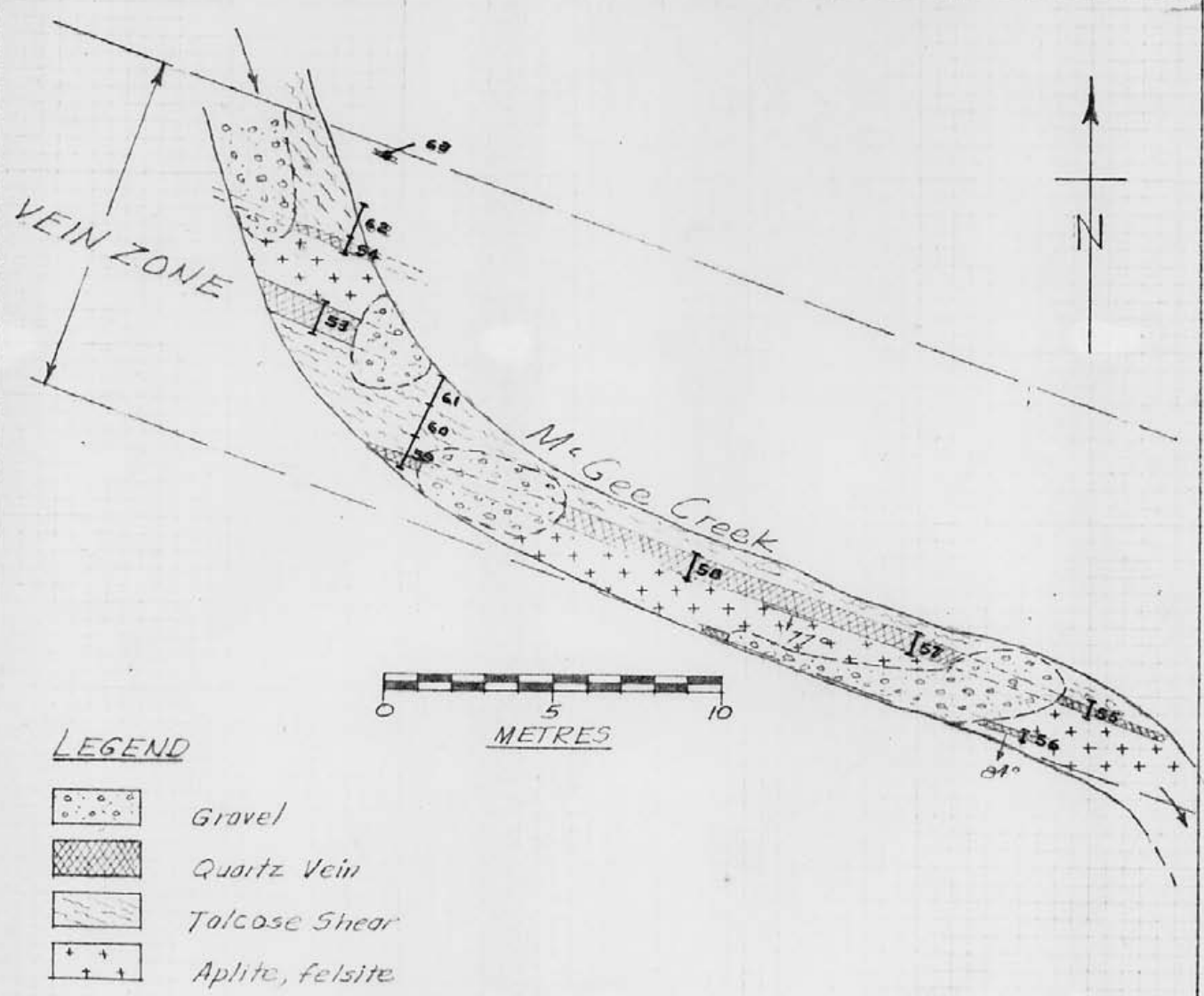
structure then there has been 10 to 15 m of apparent left hand offset between the two workings.

The east contact of the granite intrusive in Criss Creek is shown (Plate No. 1) as having a left hand offset in excess of 100 m. This interpretation is based partly on topographic evidence since the actual granite contact on the west side of the creek is obscured by overburden. No evidence of faulting was seen in or along the creek but this could be due to overburden. The interpreted fault producing lateral offset of the granite strikes N-65-E, corresponding to the attitude of a well developed set of regional fractures as discussed below. No evidence of folding was noted anywhere in the general area, inside or outside the claims. Nevertheless the dip of the conglomerates changes from 70 to 85° northeast along the southwest side of the claims group to around 20° northeast about 3 km south. This local steepening could be explained by downfaulting of a block lying immediately northeast of the northwest trending fault discussed above and shown in Plate No. 1 as following a linear depression in the vicinity of the two adits on claim No. 1.

The course of Criss Creek, throughout its length, exhibits a distinctive zig zag pattern of short linear sections terminated by sharp bends. This pattern is particularly apparent on air photos and topographic maps. The linear sections can be divided into three distinct systems designated A, B, and C in decreasing order of importance, and trending N-36-W, N-65-E and due East-West respectively. These linear systems are interpreted to reflect bedrock structures such as faults, or fractures. Assuming systems A and B represent conjugate shears of a strain ellipsoid oriented with the intermediate axis near vertical then the axis of maximum stress would strike N-75-W. Tension fractures would develop parallel to this deforming force and might be occupied by quartz veins, such as those occurring on claim no. 1 and which strike N-70-W. Good correlation between the strike of actual quartz veins and the postulated direction of tension fractures adds some credence to this structural interpretation. However, this appears incompatible with the situation of McGee Creek where mineralized quartz veins occupy a strong shear also striking N-70°-W. It may be that this shear is a consequence of the adjacent granite intrusion, but controlled in part by a pre existing tension fracture.

The structural model given does not explain system C, the east-west lineations. These are the least abundant linear feature but air photos suggest they may have the greatest strike length.

SAMPLE NO.	WIDTH (m)	ASSAY			REMARKS
		Mo(%)	Au(oz/ton)	Ag(oz/ton)	
53	1.0	0.12	TR.	TR.	0.8 m qtz. vn. with stringers
54	0.5	0.06	TR.	TR.	0.4 m qtz vn. with Pyrite
55	0.4	0.08	TR.	TR.	0.25 m. qtz. vn. in felsite
56	0.3	TR.	TR.	TR.	0.20 m qtz. vn.
57	0.6	0.08	TR.	TR.	0.5 m qtz. vn. in felsite
58	0.8	0.15	TR.	TR.	0.65 m qtz. vn. with Pyrite, MoS <sub>2</sub>
59	1.0	0.08	TR.	TR.	0.30 m qtz. vn. with MoS <sub>2</sub>
60	1.0	0.15	TR.	TR.	qtz. str. in chloritic shear
61	1.0	0.05	TR.	TR.	as above
62	1.0	TR.	TR.	TR.	Pyritic shear
63	Grab	0.20	TR.	0.6	0.1 m rusty qtz.



LEGEND




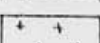
-  Gravel
-  Quartz Vein
-  Talcose Shear
-  Aplite, felsite

PLATE NO. 2  
 SAMPLE LOCATIONS  
 M<sup>c</sup>GEE CREEK  
 321/15W  
 J.D. Murphy    1:200    78-8-30

The structural map (Map B) prepared to accompany CIMM Special Volume 15, "Porphyry Deposits of the Canadian Cordillera" indicates a strong north-south regional fault running from south of Merritt, up Guichon Creek through the west end of Kamloops Lake and about 0.5 km west of the granite intrusive on the ELM claim group. This corresponds fairly closely with a photo linear extending through a straight north-south section of Criss Creek approximately half a kilometre long. No direct evidence of faulting along north-south planes was noted.

#### MINERALIZATION

The best mineralization occurs along McGee Creek where a shear zone up to 10 m wide contains narrow aplite and felsite dikes and several quartz veins carrying molybdenite yielding assays up to .56% Mo. Mineralization occurs intermittently, due to overburden, over a strike length of approximately 25 metres. Weighted average grade of the main zone is calculated as 0.07% Mo over 7.1 metres, as compared with the Boss Mountain producer which averages 0.20% Mo.

A second zone of potential importance is represented by the northeast striking lead-silver vein on claim No. 1. Mineralization is well below economic grade but provides encouragement that similar veins of better grade may be found, and warrants exploring the known vein in anticipation of locating better grade sections. The only economic mineral noted was coarse galena, which apparently carries the silver values.

Another area of potential interest is the sheared, dolomitic conglomerate zone along Criss Creek. Previous reports include sample results indicating good lead-zinc mineralization containing up to 16 oz/ton silver and 0.1 oz/ton gold. No mineralization of this tenor was found, possibly due to sloughing of old trenches from which the samples were taken. This suggests that such mineralization may have a very restricted distribution. At least two diamond drill holes were put down in an apparent attempt to explore this zone at depth. Unfortunately no information has been found indicating who did the work or what the results were. Consequently, this area warrants further investigation.

#### GEOLOGIC HISTORY

Following is a suggested sequence of geological events in the area following deposition, deformation and erosion of the Triassic Nicola volcanics.

- (1) Deposition of Late Cretaceous sedimentary sequence unconformably on older units, including Nicola volcanics.
- (2) Down faulting of block on northeast side of north west trending fault line imparting steep northeasterly dips to sedimentary units immediately south west of the claim group.
- (3) Application of directed pressure from northwest and southeast producing fracture systems A and B, and tension fractures at N-75-W.
- (4) Emplacement of main granite plug producing sheared conglomerate and local shear zones at N-70-W controlled by earlier tension fractures. The mineralized shear in McGee Creek is an example.
- (5) Emplacement of late magmatic granitic phase including aplite and felsite.
- (6) Emplacement of quartz veins and dolomite stringers and sulphides from hydrothermal solutions controlled by earlier tension fractures and shears.
- (7) Faulting at N-20-W and N-30-E producing right hand offset of the granite plug in a north-northwest direction.
- (8) Intrusion of diorite bodies and genetically related trap dikes of probable Late Tertiary age controlled by fault junctions, fractures, bedding, shears, etc.
- (9) Renewed movement along old fault surfaces causing offsetting and shearing of trap dikes, some of which were altered to talcose material as in McGee Creek.
- (10) Regional north-south faulting as evidenced by photolinears immediately west of the claim group.
- (11) Glaciation and erosion.

#### ECONOMIC CONSIDERATIONS

The ELM group is well located regarding access and transportation. Good roads and trails suitable for upgrading permit two wheel drive vehicles access to the centre of the claims. Travel time from Savona is about one hour, a distance of 40 km.

The property lies less than 25 km straight line distance from the Trans Canada Highway, the main line of both the Canadian National and Canadian Pacific railways, and high voltage transmission lines. Main natural gas supply lines along Deadman River pass within 10 km of the claims. Criss Creek, a small permanent stream runs through the property providing an adequate potable water

supply for both diamond drilling and camp purposes. Relief is such in the claim area that it would be possible to develop up to 250 m of back by driving 500 m or less from the elevation of Criss Creek permitting a good tonnage to be proven at relatively low costs.

Logging and ranching are the only activities in the area so ecological problems should be minimal. The native settlement of Deadman Creek might provide a stable, indigenous labour pool.

STATEMENT OF COSTS

All costs were incurred by the writer between 1978 - 8 - 15 and 1978 - 9 - 15.

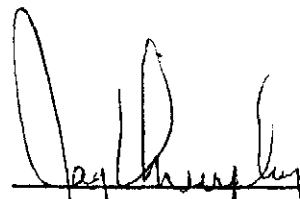
6 days geological mapping and sampling at \$150 per day	\$900.00
4 days drafting and reporting at \$100 per day	400.00
6 days living expenses at \$10 per day	60.00
200 miles personal vehicle at \$.20 per mile	40.00
Typing and photocopying	<u>100.00</u>
TOTAL	<u>\$1500.00</u>



STATEMENT OF QUALIFICATIONS

I, Jay D. Murphy, hereby certify:

1. That I am a Consulting Geological Engineer, resident at 1335 Todd Road, Kamloops, B.C.
2. That I am a graduate from the University of Manitoba (1954) with a B. Sc. in Geological Engineering.
3. That I have practiced my profession continuously since graduation.
4. That I am a member of the Association of Professional Engineers of British Columbia and Ontario.
5. That the information contained in this report is based on a personal examination of the subject property.

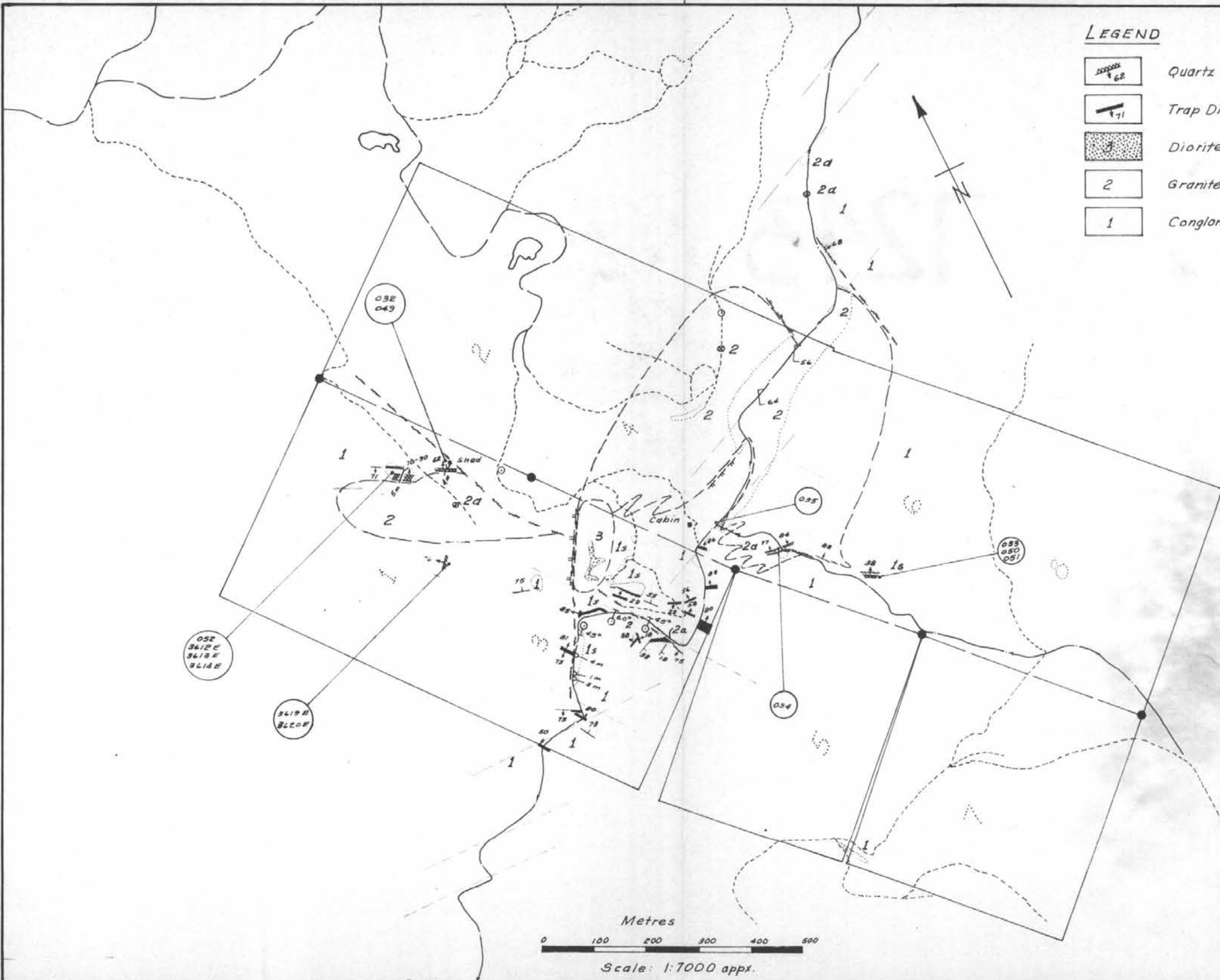
  
Jay D. Murphy, P. Eng.



APPENDIX NO. 1

SAMPLE AND ASSAY DATA

<u>SAMPLE NO.</u>	<u>SAMPLE WIDTH(m)</u>	<u>Mo(%)</u>	<u>Pb(%)</u>	<u>Au oz/ton</u>	<u>Ag oz/ton</u>
032	grab	--	--	.005	0.17
033	1.83	.058	--	--	--
034	0.61	.105	--	.006	--
035	grab	.56	--	Tr	--
3612E	1.22	--	--	Tr	Tr
3613E	0.53	--	--	Tr	Tr
3614E	1.37	--	--	Tr	Tr
3619E	Grab	--	.35	Tr	6.5
3620E	0.50	--	.30	Tr	4.1
049	Grab	.025	--	Tr	Tr
050	1.0	.04	--	--	--
051	0.8	.015	--	--	--
052	Grab	--	.04	Tr	Tr



**LEGEND**

	Quartz Vein
	Trap Dike
	Diorite
	Granite, a- aplitic & felsitic
	Conglomerate, s- sheared

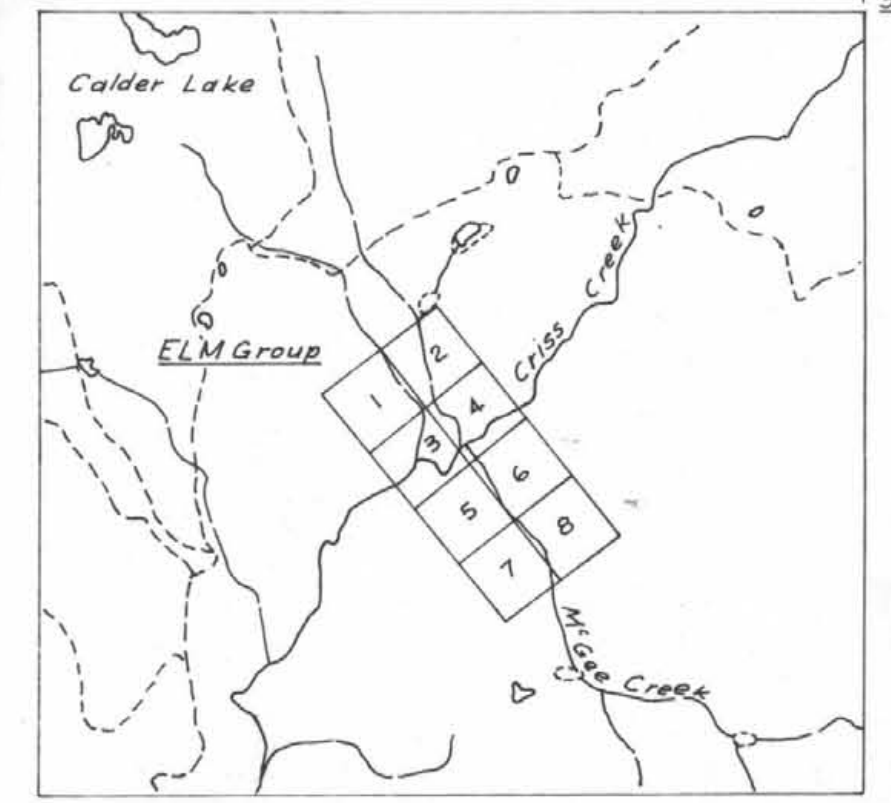
**SYMBOLS**

	Outcrop boundary, small outcrop
	Geological contact defined, inferred
	Bedding
	Joint
	Fault or shear defined, inferred
	Stream
	Scarp
	Road- 2 wheel drive, 4x4 or foot
	Diamond drill hole & inclination
	Percussion drill hole - vertical
	Adit, length indicated
	Claim post

034 Sample number and location

A  
B  
C Photolinear systems

# 7243



Metres  
0 1000 1000  
Scale: 1:50000

Metres  
0 100 200 300 400 500  
Scale: 1:7000 appx.



PLATE NO. 1

**GEOLOGICAL PLAN**

ELM GROUP  
921/15W

J.D. Murphy | 1978-8-27 | Scale Noted