

87-175-15989

GEOLOGICAL REPORT

on the

ELM GROUP OF MINERAL CLAIMS

KAMLOOPS, M. D.

NTS 921/15W

Lat. $50^{\circ} 58.4'$ Long. $120^{\circ} 52' 51.6'$

by

Jay D. Murphy, P. Eng.

for

GLITTER GOLD MINES LTD.

OPERATOR / OWNER

RECORD NUMBERS

1180 - 1185
1303 & 1304

FILMED

15,989

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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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 north-west trending ridge along the southwest side of the claim group which slopes steeply south-east to Criss Creek, a drop of over 200 meters. 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.

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 totalling 625m. Mineralization is associated with a small granite body of Late Cretaceous or Tertiary age intrusive into Cretaceous conglomerate.

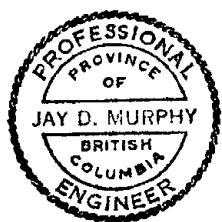
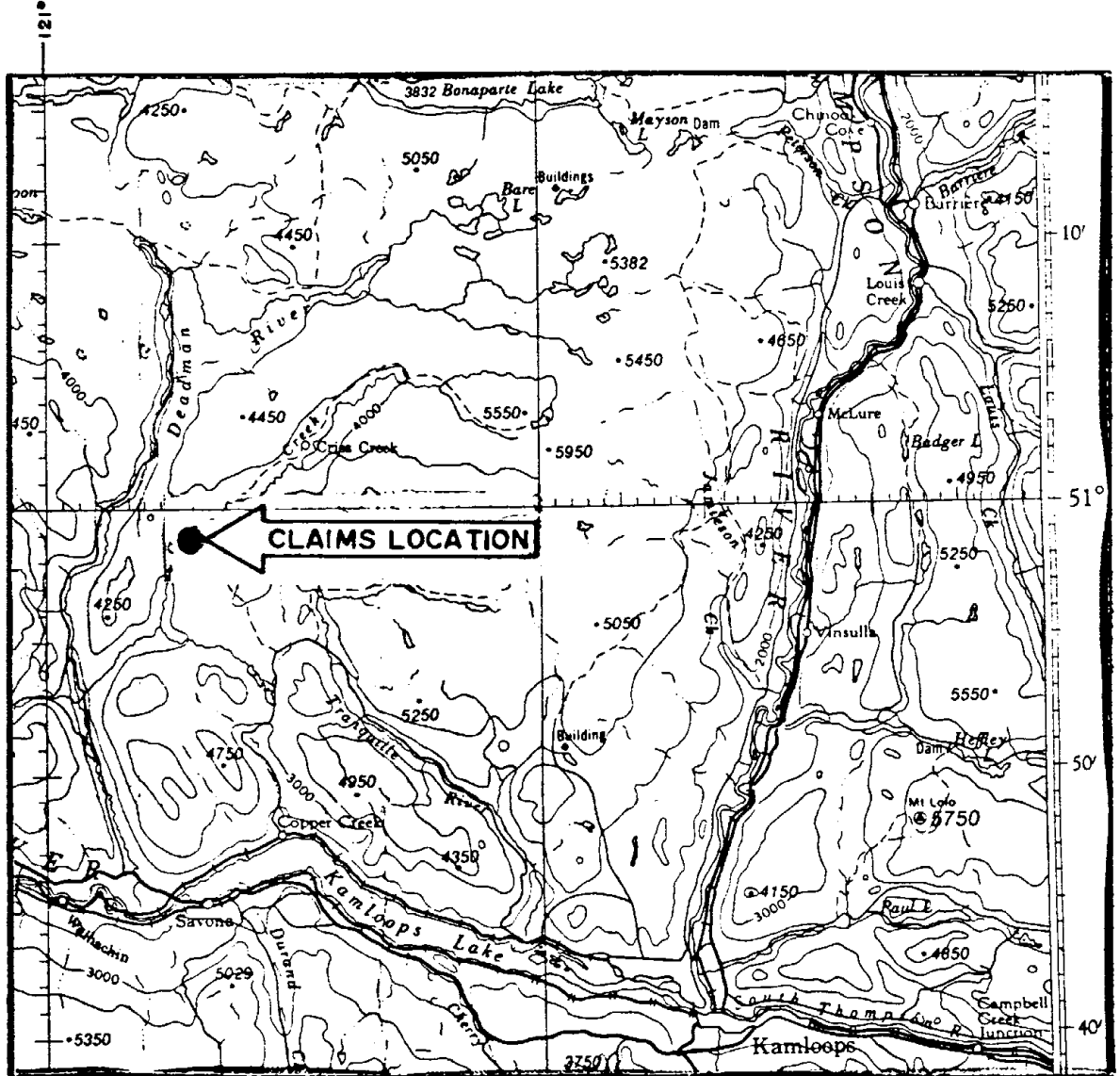


PLATE NO.1		
ELM GROUP		
Kamloops M.D. 921/15W		
LOCATION MAP		
J.D.M.	1:500 000	84-05-03

Previous work defined two mineralized areas of potential economic interest, a Gold-Silver Zone and a Molybdenum Zone. The Au-Ag Zone was mapped in detail as discussed in a previous assessment report dated 1985-04-25. The purpose of current work was (a) to map the Mo Zone in detail and (b) adequately determine the spatial relationship of the two zones for the purpose of correlating geological and structural features.

SUMMARY AND CONCLUSIONS

The molybdenum and precious metal mineralization appears to represent two separate and distinct zones with different genesis, mineralization and gangue. It seems unlikely that the two zones represent mineral zoning due to temperature variation along a common structure.

The Molybdenum Zone very probably extends eastward beyond the fault in McGee Creek against which the exposed section of veining terminates. The quartz-molybdenum veining has the appearance of weakening and possibly tailing out to the west, but there is a good chance that additional mineralization occurs between McGee and Criss Creeks. It is unlikely that the Mo Zone extends to the west side of Criss Creek. On the other hand, work to date does not preclude the possibility that the strong Au-Ag Zone shearing extends east of Criss Creek.

Limited sampling did not indicate any significant mineralization outside the two known zones.

RECOMMENDATIONS

1. Try to extend the Molybdenum Zone mineralization east and west by running short geochemical soil sampling lines both sides of McGee Creek across the projected strike of the zone. Use a sample interval of 10 to 20m and analyse for Mo. Wait for assay results from the first two lines to provide encouragement before extending the sampling programme.
2. In a similar manner attempt to extend the strike of Au-Ag Zone mineralization by sampling approximately along the contours both west and east of the zone of known mineralization. Analyse samples for Cu and Ag.

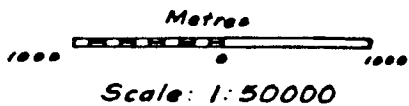
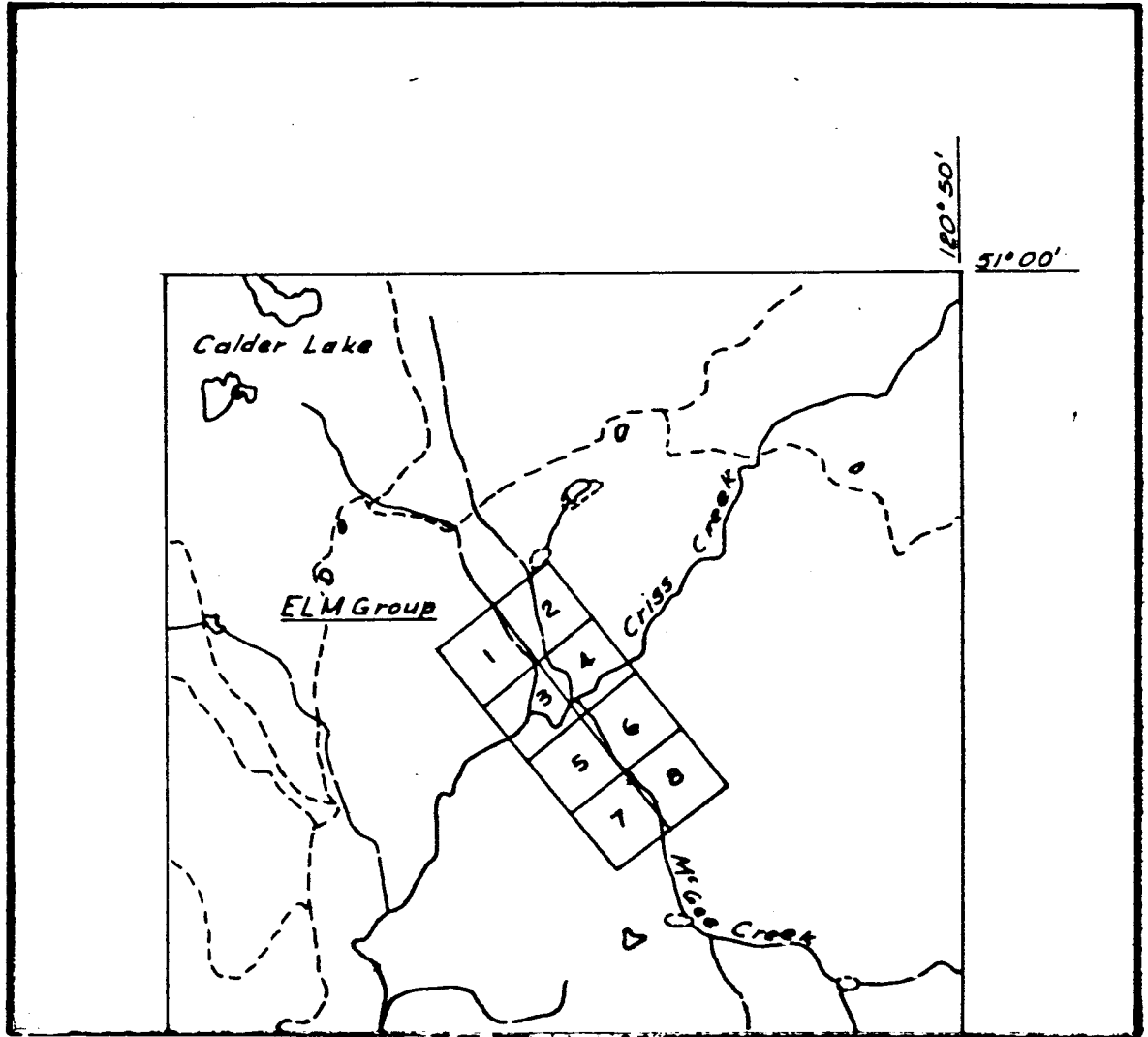
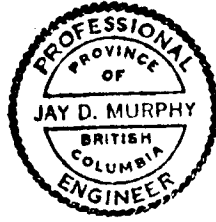


PLATE NO. 2		
ELM MINERAL CLAIMS 921/15W		
CLAIM MAP		
J.D.M	1:50000	85-04-22

FIELD PROCEDURES

A compass and hip chain survey was used to establish a series of control points along McGee Creek. A corner of the old cabin (Plate No. 3) was used as the start point. A pocket altimeter was used to rough check station elevations for comparison with map contours.

For topographic and geologic mapping control along McGee Creek the usual procedure was to measure between adjacent control points by hip chain, noting the distance for plotting. The hip chain thread was then fixed between the two stations and flagging tape attached at 5m intervals, providing detailed control for subsequent mapping of that section of the creek.

Rock outcrops were found confined mainly to the creek bed and adjacent banks. Bedrock is fairly well exposed in the lower 200m of McGee Creek, in contrast to the following 100m where bedrock is completely covered by logs and boulders. The remainder of the mapped section of the creek contains only small scattered outcrops. Beyond the limit of mapping the creek bed is filled with boulders of dark purplish volcanic flow material of probable Tertiary age. No bedrock exposure of this material was seen.

A total of eight rock samples were taken, six from McGee Creek and two from the Gold-Silver Zone.

DISCUSSION OF RESULTS

Geological mapping indicates the Molybdenum Zone mineralization in McGee Creek occurs in sheared conglomerate cut by aplite and trap dikes, similar to the Gold-Silver Zone in Criss Creek. However, the two zones show contrasting associations in that molybdenum mineralization is located near the southwest contact of a small granite intrusive, while the Gold-Silver Zone is near the contact of a small diorite plug (Plate No. 3).

Mo Zone mineralization consists of pyrite and molybdenite in quartz veins. In the Au-Ag Zone, minerals include pyrite, chalcopyrite, tetrahedrite, galena and sphalerite in quartz-carbonate veins and stringers.

The two zones occur on opposite sides of a linear northwest trending section of Criss Creek, the Au-Ag Zone on the west side and the Mo Zone on the east. Based on topography, and the fact that none of the east-west trending trap dikes, mapped earlier in this area, can be traced across the creek, this section of Criss Creek is considered a probable fault zone. This remains to be proven, however no evidence was seen to

indicate the MoZone extends west of Criss Creek or that the Au-Ag Zone extends west of Criss Creek or that the Au-Ag Zone extends east of it.

The Mo Zone veining strikes N-72°-W and dips south at approximately 80°. This strike corresponds exactly with foot wall shearing in the Au-Ag Zone. Some shearing also shows steep southerly dips, though the Au-Ag Zone as a whole is considered to reflect the attitude of the hanging wall vein which strikes N-60°-W and dips north at 65°. Therefore, if the two zones are both present on either side of the postulated Criss Creek fault, these zones will converge to the west and at depth. Projecting the respective mineralized zones along strike to the opposite side of Criss Creek, and assuming no lateral movement of the fault, then on the east side the zones would have a lateral separation of 155m and would converge 390m below the Mo Zone surface outcrop. On the west side the zones would be only 35m apart and would converge 95m below the surface outcrop of the hanging wall vein in the Au-Ag Zone.

The Mo Zone veining terminates to the east against a strong north northwest trending shear that has imparted an apparent right lateral offset to the faulted portion of the zone. Both quartz molybdenum and barren dolomite veining outcrop some 140m farther up McGee Creek, but neither is considered the faulted extension of Mo Zone mineralization. The offset portion probably is located in the section of creek where no bedrock is exposed.

Sampling data is summarized in Appendix No. 3 and sample locations are shown on Plate No. 3. No assays of economic interest were obtained.

STATEMENT OF COSTS

The following costs for fieldwork on the ELM Mineral Claims were incurred between 1986-07-17 and 1986-08-05. Report preparation was done on 1987-04-24 and 25. All work was performed by J.D. Murphy, P. Eng.

LABOUR

8 days fieldwork @ \$250/day \$2000.00

TRANSPORTATION

8 days 4 x 4 rental @ \$25/day	\$200.00	
586 km @ \$.20	<u>117.20</u>	
Total Transportation	<u>\$317.20</u>	317.20

ASSAYING

8 rock sample preparations	@ \$2.50	\$ 20.00	
4 Au geochem analyses	@ 6.00	24.00	
8 Ag geochem analyses	@ 1.90	15.20	
1 Mo geochem analyses	@ .90	.90	
1 Pb geochem analyses	@ .90	.90	
1 Zn geochem analyses	@ .90	.90	
	Sub Total	<u>\$ 61.90</u>	
	15% surcharge	<u>9.28</u>	
Total Assaying		\$ 71.18	71.18

REPORT PREPARATION

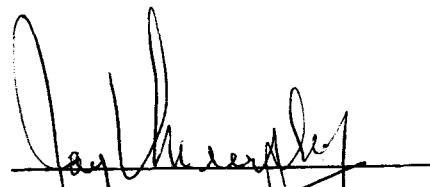
14.5 hrs. report preparation	@ \$31.25	\$453.12	
1.0 hrs drafting	@ 31.25	31.25	
10 pages typing	@ 4.00	40.00	
3 pages tables and forms	@ 6.00	18.00	
52 photocopies	@ .20	10.40	
4 blueprints	@ 1.50	<u>6.00</u>	
Total Report Preparation		\$558.77	<u>558.77</u>

TOTAL COST \$2947.15

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.

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KAMLOOPS RESEARCH
&
ASSAY LABORATORY
LTD.

B.C. CERTIFIED ASSAYERS

912 LAVAL CRESCENT
PHONE 372-2784 - TELEX 048-8320

GEOCHEMICAL LAB REPORT

MR. JAY MURPHY
1335 TODD RD.,
KAMLOOPS, B.C.
V2C 5B4

DATE AUG 28, 1986

FILE NO. G 1509

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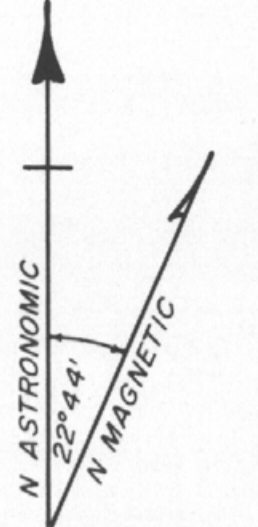
KRAL NO.	IDENTIFICATION	AU	AG	MO
1	215	3.0	0.7	0.0
2	216	3.0	0.0	0.0
3	217	3.0	0.5	50.0
4	218	3.0	0.8	0.0

IN AU COLUMN 3 INDICATES <5 PPB

IN AG COLUMN 0.0 INDICATES <0.1 PPM

SAMPLE DATA

Sample No.	Description	Assay				
		ppb	ppm			
		Au	Ag	Mo	Pb	Zn
209	grab sample of 3m dolomite vn from upper McGee Cr., strong fuchite alt'n,dissem Py	--	1.01	--	--	--
210	grab sample grey dolomite as above, disseminated Py	--	1.01	--	--	--
211	grab from rusty weathering dolomitic conglomerate from lower drill road, fine Py	--	1.01	--	--	--
212	grab from old trench area of aplite with 5-10% Py & minor sphalerite	--	1.01	--	13	10
215	composite chip sample across 15m of felsic dike with 5% Py	3.0	0.7	--	--	--
216	composite chip sample across 25m of pyritic qtz-stringer zone in monzonite	3.0	0.0	--	--	--
217	siliceous mylonite at junction at 2 shears, heavy Py, minor MoS ²	3.0	0.5	50	--	--
218	quartz float with Py and Acicular silver colored mineral with purple alteration	3.0	0.8	--	--	--

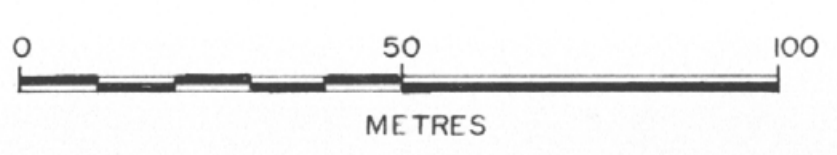


LEGEND

- 5 Aplite
- 4 Trap dike
- 3 Diorite
- 2 Granite
- 1 Conglomerate, s-shearad, d-dolomitic, c-cherty

SYMBOLS

- ^x Outcrop boundary, small outcrop or boulder
- Quartz-carbonate vein, stringer
- Geological contact
- Bedding
- Shear
- Fault
- Adit
- Claim post & boundary
- Sample location & number
- Dolomitic vein



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GEOLOGICAL BRANCH
ASSESSMENT REPORT

PLATE NO. 3

ELM MINERAL CLAIMS
 CRISS CREEK AREA
 KAMLOOPS B.C. 92/15W

GEOLOGY

GOLD-SILVER AND MOLYBDENUM ZONES

J.D.M. 1986-09-22 1:1000