



SAWYER CONSULTANTS INC.

REPORT ON THE CARLIN 2 CLAIM

KAMLOOPS MINING DIVISION

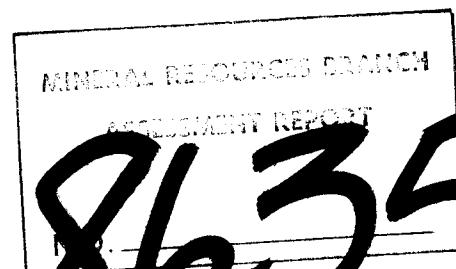
BRITISH COLUMBIA

92 I/9E '80-#310-8635

50° 38' N 120° 07' W

for

T. ALEXANDER



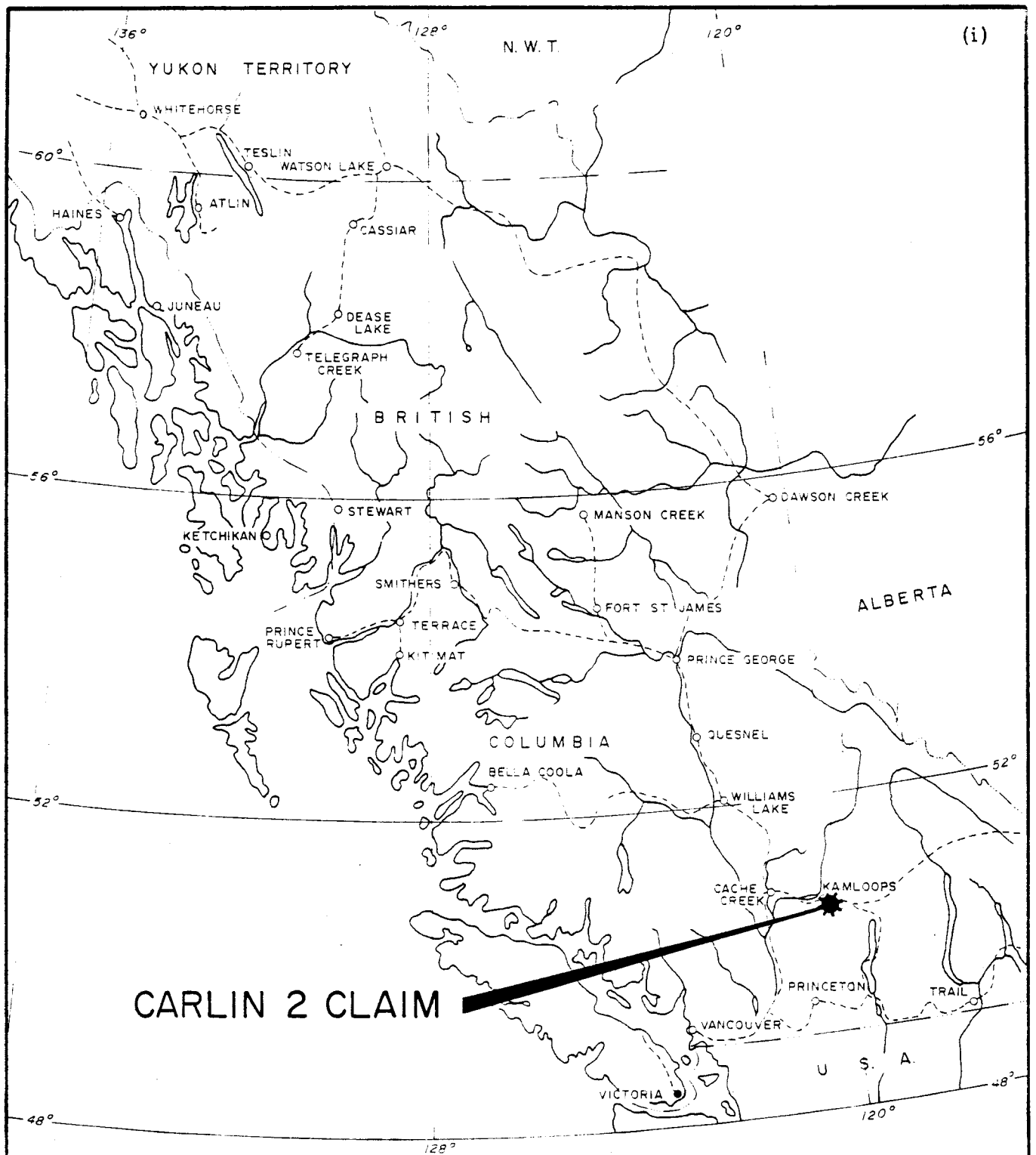
MAY 11th, 1979

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**CARLIN 2 CLAIM**

**GENERAL LOCATION SKETCH  
CARLIN 2 CLAIM**

KAMLOOPS MINING DIVISION, B. C.

SCALE: 1" = 125 MILES

Fig. 1

## INTRODUCTION

The following report, prepared at the request of Mr. Terry Alexander, is based on previous work done in 1976 which included review of reports by Messrs. R.A. Dickinson and M. McClaren which provided background data to a number of gold occurrences in the prospect area, as well as field work on the Carlin 2 Claim and on more recent observations relating particularly to the re-staking of this claim in May, 1979.

The Carlin 2 Claim represents a restaking of the former Mt Claim Group which was originally staked and held by Copper Range Exploration Company Inc. In the period 1971 to 1973 the Copper Range Company carried out an exploration program on these claims consisting of geochemical sampling, both of soils and of bedrock, and geological mapping and defined by this work two, and possibly three, zones of anomalous concentrations of gold. More recent sampling by the present claim owners, in 1975, has repeated some anomalous values in gold however there is a certain lack of correlation between the Copper Range results and the 1975 sampling results which is probably due in large part to differing assay techniques. There seems little doubt that there is gold associated with some of the intrusive as well as some of the Cache Creek rocks in this area and further work is justified to establish the potential volume of gold bearing rocks and their grade.

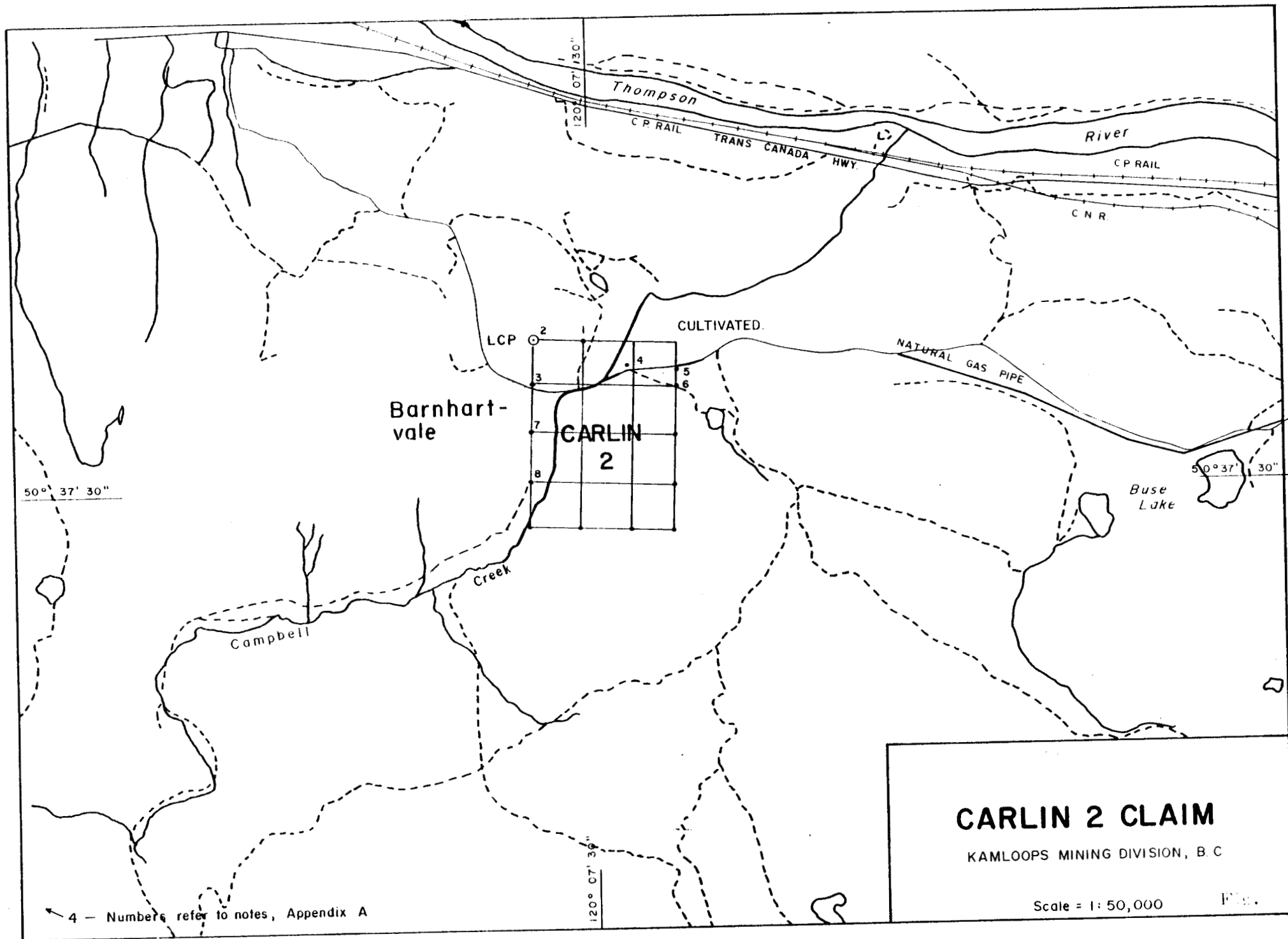
## PROPERTY

The property consists of the Carlin 2 Claim comprising 12 units under the modified grid system of staking. The present Carlin 2 Claim was staked by R.A. Dickinson on April 1st, 1979, and covers most of the southernmost four-fifths of the Carlin 2 Claim originally staked in September 1975. The configuration of the claim is 4 units in a north-south direction by 3 units in an east-west direction with the Legal Corner Post being located at the northwestern corner of the claim. The claim was recorded at Kamloops on April 4th, 1979, in the name of R.A. Dickinson and bears the record number 1793. This information is summarized as follows:

Claim	No. of Units	Record No.	Staked	Recorded
CARLIN 2	12	1793	April 1st, 1979	April 4th, 1979

The claims are in the Kamloops Mining Division and lie at latitude  $50^{\circ}38'N$  and longitude  $120^{\circ}07'W$  approximately.

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## LOCATION AND ACCESS

The Carlin 2 mineral claim is located at Barnhart Vale which lies approximately 8 miles east-southeast from the City of Kamloops. The claim straddles a paved road which joins with part of the main Trans Canada Highway thus access to the property may easily be had via these paved roads. Campbell Creek, a tributary of the Thompson River, flows in a southwesterly to north-easterly direction diagonally across the property.

## HISTORY

Prospecting activity in the Kamloops area and in the Barnhart Vale area in particular probably dates from earlier in the century and the writer has no detailed information on this earlier work. Evidence on the ground suggests that some of the trenching relates to this earlier period.

The recent history of the area dates back to 1971 when Copper Range Exploration Company Inc. carried out a regional geochemical exploration program which included the present claim area. This work discovered anomalous concentrations of gold and copper in rocks in the Barnhart Vale area and led to staking of the Mot claim group consisting of 22 claims numbered Mot 9 to Mot 30. Work by Copper Range Exploration Company Inc. in 1971 consisted of a geochemical soil sampling survey followed by geological mapping and detailed rock chip sampling. Because of relatively limited outcrop in the claim area the extent of the rock sampling program was necessarily confined to a small area, i. e. the topographic high occupying the southern half of former Mot 15 claim which corresponds with the central area of the present Carlin 2 claim, immediately south of the highway at Barnhart Vale.

Soil samples from this survey were analysed by Barringer Research Ltd. in Vancouver for arsenic, mercury and copper. Rock chip samples were analysed for gold and arsenic content. The results of this work indicated several anomalous values which when plotted suggested an anomalous zone, approximately 300 feet wide having a very rudimentary east-west lineament, and open at both ends.

The above results were considered sufficiently interesting to warrant a more detailed program which was carried out by Copper Range Exploration Company Inc. in the spring of 1973. This program consisted of more detailed geological mapping and an extension of the rock chip sampling program to cover the remainder of the claim group. Samples from this program were analysed for gold, silver, copper, and arsenic and the results confirmed the early anomalies and expanded them slightly. Copper Range Exploration Company Inc. concluded from all of this work that they had demonstrated the presence of two certain and a third possible zone of anomalous values in gold and arsenic. The most northerly of these, lying approximately 1000 feet northwest of Barnhart Vale, had

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dimensions of 1000 ft. x 2000 ft. The second zone, approximately 1000 feet southeast of Barnhart Vale and some 2000 feet from the first zone, has dimensions of approximately 700 ft. x 2000 ft., and the possible third zone, lying further to the south, had possible dimensions of 500 ft. x 1000 ft. On the basis of these results a program of percussion drilling and trenching was recommended but, due to the closure of the Copper Range office in 1974, the recommendations were never carried out. At their 1975 anniversaries the claim rental payment was not made and thus the claims became open. The area was then restaked by R.A. Dickinson in September 1975.

In 1975 Messrs. Dickinson and McClaren resampled the anomalous zone outlined by Copper Range Exploration Company Inc. in 1971 and determined the gold content of these samples by two different methods. These results showed some anomalous values in those samples analysed using a cyanide leach analysis technique. The three samples analysed using normal fire assay procedures showed no anomalous values and only very low gold content. Unfortunately no cross-checking was done by analysing the same samples with both methods so that it is difficult to draw any meaningful conclusions as to the effectiveness of each technique from these results. As in the case of the work by Copper Range Exploration Company Inc. the areas sampled in 1975 represented only a very small part of the total claim area essentially repeating the coverage achieved earlier by Copper Range Exploration Company Inc.

## GEOLOGY

The Carlin 2 claim area is underlain by a mixed assemblage of Palaeozoic sediments of the Cache Creek group, younger intrusive rocks of presumed Cretaceous age, and Tertiary sediments and volcanic rocks of the Kamloops Group.

### Cache Creek Group

Sediments of this unit underlie the greater part of the Carlin 2 claim area and include medium to dark coloured, fairly thin bedded argillite with, in places, chert horizons, as well as some beds of a medium grained greywacke and minor limestone. All of the rocks of the Cache Creek group are highly fractured and brecciated. In places these rocks are strongly veined with numerous fine quartz stringers and segregations, and it appears that it is in these altered phases that the gold values are localized.

### Intrusive Rocks

The area is host to a number of igneous intrusions which are assumed to be part of the Cretaceous Coast Intrusions. Some of them may be early Tertiary in age. A large granodiorite body, possibly part of Cockfield's Wild Horse Mountain batholith, lies immediately to the west however at this stage this intrusive does not appear to bear any relationship to the alteration and

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pyritization which is associated with the gold mineralization. Numerous dykes of feldspar porphyry cut the Cache Creek sediments and are generally associated with finely disseminated pyrite and minor pyrrhotite with attendant rusty limonitic weathering. One such dyke intrudes the Cache Creek sediments on the main hill area and is exposed in some of the trenches there. At this location this feldspar porphyry dyke is cut by numerous quartz stringers and veinlets and it is with these rocks that the gold mineralization appears to be associated. According to the later Copper Range Exploration workers a biotite feldspar porphyry intrusive outcrops one quarter mile north of the intersection of the Barnhart Vale and Campbell Creek roads and contains fine grains of disseminated pyrite and pyrrhotite and small amounts of molybdenite however it does not exhibit any quartz stockwork. This outcrop was not seen by the writer during the field examination on January 2nd, 1976.

A more massive intrusive of dioritic appearance outcrops along the main road at Barnhart Vale. It has a weathered appearance with the mafic minerals being chloritized but does not appear to include any extensive quartz veining, nor, as far as is known, to be associated with any gold mineralization.

### Kamloops Group

#### Tranquille Beds

According to Purdy, of Copper Range Exploration Company Inc., beds of Tranquille conglomerate are exposed on the downthrown side of a north-northeast striking fault approximately 1800 feet east of Barnhart Vale. This is an iron stained yellow to brown conglomerate with a sandy matrix enclosing pebbles and cobbles of feldspar porphyry and/or argillite which appear to be the host rocks of the gold mineralization.

#### Kamloops Group Volcanics

Rocks of this group, of Tertiary age, include flows of andesitic to basaltic composition and are the youngest rocks of this prospect area. They overlie the earlier rocks and outcrop to the east of the claim area.

### MINERALIZATION

Actual sulphide mineralization observed on the ground is relatively minor in amount and is predominantly pyrite associated with the fractured porphyry intrusive and in places in adjacent Cache Creek rocks. Minor pyrrhotite and chalcopyrite also occur in places. From the sampling done by Copper Range Exploration and by Dickinson and McClaren the major zones of gold mineralization detected so far appear to be related quite specifically to these fractured pyritic zones, and are thus assumed to have a genetic relationship with the feldspar porphyry intrusions. There is some evidence to suggest

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also that there may have been some mechanical processes at work in localizing or concentrating the gold in fractures or fissures, thus chip sampling of surface may return values which are lower than true values.

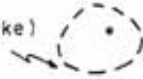
The following table, taken from McClaren's report dated October 1975, gives the results of the 1975 sampling (with the assay method used), together with a brief description of the samples and compares them with the assays obtained by Hopkins of Copper Range Exploration Company Inc. (1971).

Sample No.	Assay Value	Tech.	Description	Copper R. oz/ton
M-3	0.010	CL	Chip sample over 10 ft. approx. Silicified Cache Cr. Gp. rocks, limonite stained.	0.027
M-7	0.007	CL	Chip sample across 6 ft. Brecciated, silicified Cache Cr. Gp. rocks, minor pyrite.	0.064
M-8	0.594	CL	Chip sample across 6 ft. Silicified, altered sediments of the Cache Cr. Gp. cut by quartz veinlets.	0.082
M-9	0.017	CL	Chip sample across 8 ft. Altered Cache Cr. Gp. sediments with minor pyrite and numerous small quartz veinlets.	
M-10	0.073	CL	Chip sample over 6 ft. approx. Altered feldspar porphyry cut by numerous quartz stringers carrying pyrite, chalcopyrite, and galena.	3.13
M-11	0.011	CL	Chip sample across 5 ft. of altered sediments. Minor pyrite and quartz stringers.	
M-13	Tr	FA	Chip sample across 6 ft. of calcareous siltstone and silty limestones. Very little alteration.	N.S.
M-14	Tr	FA	Chip sample across 6 ft.; black argillite with interbedded siltstones. Carbonate veining is noted.	N.S.
M-15	0.02	FA	Diorite with quartz veins and veinlets and carbonate veinlets. The matrix is altered to chlorite.	N.S.

Note: CL = Cyanide Leach  
FA = Fire Assay

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Porphyry (dyke)



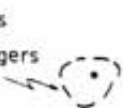
Tr. 76-5  
(=M3?)

Porphyry (dyke)



Tr. 76-4  
1976 Assay Sample No. 11407

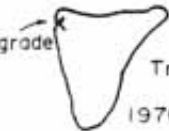
Cache Creek sediments  
with good quartz stringers  
and veinlets.



Tr. 76-3  
Tr. 76-2  
(=M8?)

Tr. 76-0

Location of high grade  
gold sample in  
sulphides



Tr. 76-1  
1976 Assay Sample No. 11408



### CARLIN 2 CLAIM

KAMLOOPS MINING DIVISION, B.C.

### PLAN OF PITS-MAIN HILL AREA

Scale: 1" = 50'

5. 4

Two chip samples were taken by the writer in the course of the field examination on January 2nd, 1976. The first of these, number 11407, was from trench designated 76-4 and was a chip sample over a distance of 6 1/2 feet in the wall of the trench and was mainly in intrusive porphyry material. The fire assay gave a result of less than 0.002 oz. per ton and the cyanide leach method returned 0.001 oz. per ton gold. The second sample, number 11408, was taken along the north side of the largest trench (76-1) and it returned assays of 0.008 oz. of gold per ton by the fire assay method and 0.006 oz. per ton by the cyanide leach method. These results are summarized in the following table.

Sample #	Description	Assay - Gold oz/ton	
		Fire	Cyanide Leach
11407	Trench 76-4 chip sample over 6.5 ft.	0.002	0.001
11408	Trench 76-1 chip sample over 7.5 ft.	0.008	0.006

In order to confirm some of the earlier assays and to get some comparison of the two assay techniques, fire assay and cyanide leach assay, the writer had additional assays run using both methods on some of the earlier samples. Samples M3 and M11 which previously had been assayed using the cyanide leach technique only were assayed by the fire assay method, and samples M13 and M15 which previously had been run with fire assay were run with the cyanide leach method. These new assays are compared in the following table.

Sample #	Assay - Gold oz/ton	
	Fire	Cyanide Leach
M-8	0.55	0.594
M-11	0.009	0.011
M-13	Tr	0.001
M-15	0.02	0.006

Considering the results in both of the above tables there appears to be some inconsistency with regard to the effectiveness of each technique. In the case of both of the samples taken by the writer in January, 1976, the fire assay method gives the higher result. In the case of three of the four re-runs on the older samples the cyanide leach method gives a higher result than the fire assay method and the fourth sample, that composed of diorite with veinlets of quartz and carbonate, returned a higher fire assay value than the cyanide leach value. These results indicate that low concentrations of gold do occur in some of these rocks, and in places gold can reach fairly high concentrations (example sample

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M-8). On the basis of the assay results presented here the cyanide leach technique perhaps provides a better extraction.

### CONCLUSIONS

(1) From the results of work carried out in the period 1971 to 1973 by Copper Range Exploration Company Inc. and of the limited resampling done by Messrs. Dickinson and McClaren in 1975 it is apparent that concentrations of gold mineralization do occur in certain rocks of the Cache Creek Group where they have been intruded by feldspar porphyry dykes of probable Cretaceous age, within the Carlin 2 claim boundaries.

(2) The nature of the mineralization and its distribution as presently known suggests there is a genetic relationship between the gold mineralization and the intrusive rocks.

(3) Our knowledge of the true extent of gold mineralization in this area is restricted by lack of outcrop over a considerable part of the claim area.

(4) Further exploration for gold mineralization on the Carlin 2 claim area will have to rely heavily on indirect exploration methods such as geo-chemical surveys for gold or possibly geophysical techniques for detecting intrusive dykes with associated pyrite mineralization.

(5) The location of the Carlin 2 claim in an area of easy access together with the fairly strongly anomalous concentrations of gold detected, even though over restricted areas at present, justify further exploration.

### RECOMMENDATIONS

Further work to explore for gold mineralization on the Carlin 2 claim area should be conducted along the following lines.

(1) A program of detailed geological mapping over the claim and adjacent areas should be carried out in an attempt to refine the geological picture presented by the earlier Copper Range Exploration Company Inc. work.

(2) A control grid should be established over the claim area without interfering with local commercial or residential interests.

(3) A program of geochemical soil sampling for gold should cover the entire property and should be backed up wherever possible with a more detailed program of rock chip sampling.

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(4) Some consideration should be given in this regard to the use of a small rock drill which is easily portable and can be used to provide closely spaced sampling in outcrop areas.

(5) Consideration should also be given to using geophysical techniques. These might be of two types, (a) to detect structural features such as fault zones, etc. and might employ high frequency EM methods (for example EM-16), and (b) to detect the pyrite mineralization with which the gold is almost certainly associated; induced polarization methods would probably be most suitable for this work and would serve to delineate target areas for more concentrated physical testing such as trenching, drilling, etc.

(6) Since a large part of the claim area is overburden covered resort will have to be made to drill sampling techniques. Cost economics will probably dictate, initially at least, the use of percussion drilling methods and in this work extreme care must be taken to ensure proper sample collection.

### COST ESTIMATES

#### Phase I

The minimum program which should be carried out on the Carlin 2 claim includes geological mapping and soil sampling. Establishment of a control grid would be a necessary part of such a program.

1. Geologist and two assistants to carry out geological mapping and establish control grid. 15 days @ \$350/day		\$ 5,250.00
2. Geochemical soil sampling - on a 400' x 200' grid over the whole property would require 12 lines approximately 9500 ft. long = 47 samples per line. Labour for sample collection - say 18 days @ \$75/day		1,350.00
Analyses - estimate 564 soil samples @ \$4.20	\$2,368.80	
estimate 200 rock samples @ \$5.50	<u>1,100.00</u>	
	\$3,468.80	3,468.80
Contingency - rock drill rental, etc.		350.00
Geophysical Surveys - estimate 5 line miles IP @ \$550/mile		2,750.00
Supervision & Engineering		2,000.00
Accommodation and/or supplies, camp, etc. - estimate 100 man days @ \$25		2,500.00
Vehicle rental, fuel, etc.		1,000.00
Contingency		<u>2,000.00</u>
	Total Phase I Program	\$20,668.80

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## Phase II

If the initial program of geochemical sampling, including rock sampling, with or without back-up data from geophysical work, provides sufficient encouragement in the form of target areas of significant size, a second phase exploration program consisting of drilling would be necessary to define tonnage and grade of gold bearing rock. Percussion drilling would be cheaper, and therefore the preferred technique for the preliminary testing but care would have to be taken to ensure proper sample collection. Some diamond drilling, to provide more accurate assay data, would be necessary as a later part of this phase of the program.

A. Percussion drilling - 4000 ft. @ \$5.50/ft.	\$22,000.00	
Sample collection, etc.		
Assaying - estimate 300 samples @ \$8.00	2,400.00	
Supervision, etc.	5,000.00	
Contingency	<u>2,500.00</u>	
Sub Total Phase IIA	\$31,900.00	\$31,900.00
B. Diamond drilling - 2000 ft. @ \$17/ft.	\$34,000.00	
Assaying - estimate 150 samples @ \$6.00	900.00	
Supervision	5,000.00	
Contingency	<u>3,500.00</u>	
Sub Total Phase IIB	\$43,400.00	43,400.00
Accommodation and/or supplies, camp costs, etc. estimate 40 man/days @ \$25	\$1,000.00	
Vehicle rental, fuel, etc.	1,800.00	
Miscellaneous	<u>500.00</u>	
	\$3,300.00	<u>3,300.00</u>
Total Phase II Program		\$78,600.00
Total Estimated Costs Phase I plus Phase II Programs		\$99,268.80

Respectfully submitted,

SAWYER CONSULTANTS INC.

J.B.P. Sawyer, P. Eng.

SAWYER CONSULTANTS INC.

CERTIFICATE

I, J.B.P. Sawyer, DO HEREBY CERTIFY:

- (1) That I am a consulting geologist with business office at 1 - 425 Howe Street, Vancouver, British Columbia, V6C 2A9, and President of Sawyer Consultants Inc.
- (2) That I am a graduate in geology of Manchester University (B. Sc. - 1953) and of the University of Western Ontario (M. Sc. - 1957).
- (3) That I am a Registered Professional Engineer (geological) in the Association of Professional Engineers of the Province of British Columbia.
- (4) That I am a Fellow of the Geological Association of Canada (1965), and a Member of the Canadian Institute of Mining and Metallurgy (1960), and Fellow of the Geological Society of London (1978).
- (5) That I have practiced my profession as a geologist for the past twenty-four years.
- (6) That the information, opinions, and recommendations in the attached report are based on research of reports describing the earlier work in this area by Copper Range Exploration Company Inc., and of private reports and data in the files of R.A. Dickinson and M. McClaren relating to their work in this area in 1975, and on personal observations made in the field on the Carlin 2 Claim on January 2nd, 1976, and on May 7th, 1979.
- (7) That I hold no interest in the Carlin 2 Claim, nor in any of the Companies controlled by Messrs. Dickinson and McClaren, or Mr. T. Alexander, nor do I expect to receive any such interest.

J.B.P. Sawyer, P. Eng.

Dated at Vancouver, British Columbia, this 11th day of May, 1979.

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APPENDIX A

Province of British Columbia - Form G

Record of Mineral Claim



# MINERAL ACT - PROVINCE OF BRITISH COLUMBIA

## Record of Mineral Claim FORM G

MAP NO. 247/2 RECORD NO. 179  
 MINING RECEIPT NO. 12078 RECORDED AT Hastings B.C. THIS 4 DAY OF April 1979  
 DO NOT WRITE IN SHADED AREAS 179 Hastings MINING DIVISION

**Affidavit  
for  
Mineral  
Claim**

I, ROBERT DICKINSON NAME AGENT FOR \_\_\_\_\_ NAME  
1376-510 W. HASTINGS ST ADDRESS \_\_\_\_\_ ADDRESS  
VANCOUVER, B.C. V6B1L6 ADDRESS  
 VALID SUBSISTING F.M.C. NO. 168439 VALID SUBSISTING F.M.C. NO. \_\_\_\_\_

MAKE OATH AND SAY: I COMMENCED LOCATING THE CARLIN 2 MINERAL CLAIM

ON THE 1 DAY OF APRIL 1979 AT 9:00 AM AND COMPLETED THE LOCATION

ON THE 1 DAY OF APRIL 1979 AT 5:00 PM CONSISTING OF

4 UNIT LENGTHS SOUTH AND 3 UNIT LENGTHS EAST AND I HAVE IMPRESSED ALL THE REQUIRED INFORMATION

ON METAL TAGS NO. 37162 WHICH HAS BEEN SECURELY FASTENED TO THE POSTS AS REQUIRED UNDER THE REGULATIONS.

IDENTIFICATION POST(S) NOT PLACED WERE ALL POSTS PLACED.

CHECK "X" APPLICABLE SQUARE  THE LEGAL CORNER POST } IS SITUATED 2700 METRE SOUTH  
 THE WITNESS POST FOR THE LEGAL CORNER POST }

OF SOUTH THOMPSON RIVER 500 METRES NORTHWEST OF VILLAGE OF BARNHART  
VALE - CAMPBELL CREEK 500 METRES NORTH OF  
BARNHART VALE ROAD 500 METRES NORTHEAST OF HEADWATERS OF  
JUNIPER CREEK ON NTS 9219E.

† BEARING AND DISTANCE TO TRUE POSITION OF LEGAL CORNER POST FROM THE WITNESS POST \_\_\_\_\_  
 BEARING AND DISTANCE FROM IDENTIFICATION POST TO WITNESS POST \_\_\_\_\_

I HAVE COMPLIED WITH ALL THE TERMS OF THE MINERAL ACT AND REGULATIONS PERTAINING TO THE STAKING OF MINERAL CLAIMS AND HAVE ATTACHED A PLAN, ACCEPTABLE TO THE MINING RECORDER, OF THE LOCATION

SWORN AND SUBSCRIBED TO AT \_\_\_\_\_  
 THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 19 \_\_\_\_\_ BEFORE ME [Signature]  
 \* THIS AFFIDAVIT MAY BE TAKEN BY A PERSON EMPOWERED TO TAKE AFFIDAVITS BY THE EVIDENCE ACT OF BRITISH COLUMBIA.

MR OR SMR STAMP

NO. OF UNITS \_\_\_\_\_ WORK REQUIREMENTS \$ \_\_\_\_\_ RENTAL REQUIREMENT - \$10.00 PER \$200.00 WORK, \$20.00 PER \$200.00 C/L

OFFICE ONLY	WORK NUMBERS	C/L USE \$	MINING RECEIPT AND DATE RECORDED	TYPE OF WORK	YEAR OF EXPIRY	CREDIT		TRANSFERS (G.S.S. ASSIGNMENTS, CONVEYANCES)
						WORK UNIT(S)	RENTAL IN \$	

OWNER

APPENDIX B

Notes on Claim Location Check of the Carlin 2 Claim

APPENDIX B

Notes on claim location check of the Carlin 2 Claim, Kamloops Mining Division,  
British Columbia, May 7th, 1979.

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1. Intermediate post on old tree stump beside road just north of Barnhart Vale.  
Written on the post is the following: 1E, 0S, Carlin 2, #37162, Apr. 1/79.
  
2. 200 feet west along north boundary from 1. is an old post.  
Written on the post is the following: 3N, 3E - Burn Claim.  
Near the top of the hill, approximately 1600 ft. east of 1. is the legal corner post for Carlin 2 Claim. The post is squared off, about 3.5 ft. high, in a group of pine/fir trees, on the shoulder of the hill, and bears the Tag No. 37162.  
  
Claim Name - Carlin 2  
Locator - R. Dickinson  
FMC No. 168939  
Agent for ---  
FMC No. ---  
Date Commenced - April 1/79  
Time - 9:00 A.M.  
Date Completed - April 1/79  
Time - 5:00 P.M.  
Number of Claim Units - N -, S 4, E 3, W -
  
3. Traversing south from the legal corner post to the main road at Barnhart Vale an intermediate post was located on the north side of the road (up a small trail from highway), approximately 500 metres south from the legal corner post. Written on the post is the following: 1S, 0E, Carlin 2, #37162, Apr. 1/79.
  
4. Along the Barnhart Vale Road on the north side of the road in the bend at the top of the hill is an intermediate post set by a fence post on the edge of a cultivated area. This post is not on the claim boundary because that boundary runs through the cultivated area. Written on post is the following: Carlin 2, 2E, 0S, #37162, Apr. 1/79.
  
5. Further along the Barnhart Vale Road on the south side of the road is a corner post which is set in a rock cairn at the edge of the road (clearly visible from the vehicle on the highway). This post similarly is not on north boundary because of the cultivated area. The post is 22 ft. on a bearing of 304° true from a triangular white survey marker. The post bears a Tag No. 37162 with the following inscription:

## Corner Post.

Claim Name - Carlin 2

Post No. - 0S, 3E

Locator - R. Dickinson

FMC No. - 168939

Agent for ---

FMC No. ---

Date - April 1/79

6. Traversing south along the east boundary of the claim from the corner post described in 5. above a distance of approximately 1320 ft. from the corner post is an intermediate post which is stood up beside a small fir tree and bound to the tree with orange flagging. On the post is written: 3E, 1S, Carlin 2, #37162, Apr. 1/79.
7. Traversing south along the Campbell Creek Road from the post at 1S, 0E (see 3. above) at a distance of 3564 ft. approximately south of the junction with the Barnhart Vale Road is an intermediate post set in the fenceline near a hydro pole directly across the road from an old barn, i.e. it is on the west side of the road. Written on the post is the following: Carlin 2, #37162, 2S, 0E, Apr. 1/79.
8. Approximately 3300 ft. further along the road from 1S, 0E (see 3. above) is another intermediate post which consists of two pieces of 2x4 nailed together and stood beside or wired to a small pine tree on the east side of the road. Written on the post is the following: 3S, 0E, Carlin 2, #37162, Apr. 1/79.

Available time did not allow inspection of the remaining posts. However, on the basis that the posts described above are all properly located and well marked, it is our opinion that the Carlin 2 Claim is well staked in accordance with the regulations of the British Columbia Department of Mines.

APPENDIX C

Copies of Assay Certificates

To: J. B. P. Sawyer

REPORT No. 21

PAGE No. 1

BONDAR-CLEGG & COMPANY LTD.

DATE: March 8, 1976

#1 - 425 Howe Street  
Vancouver, B.C. V6C 2A9

CERTIFICATE OF ASSAY

Samples submitted: March 4, 1976  
Results completed: March 8, 1976

I hereby certify that the following are the results of assays made by us upon the herein described pulp & ore samples.

MARKED	GOLD		Ounces per Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent	TOTAL VALUE PER TON (2000 LBS.)
	Ounces per Ton	Value per Ton									
		oz/ton									
		Total Cyanide Soluble Gold									
		(Tailings & Solution Assays)									
TR 76 - 1 )	0.0011	0.006									
) Cyanide	0.0004	0.001									
) Leach on	0.0004	0.001									
MR - 13 )	0.0004	0.001									
) tailings	0.0013	0.006									
) 15											
) 8 Fire	0.55										
) 11 Assay	0.009										

Note: MR sample numbers are the same as M sample numbers in the table from McClaren, page 5 in report.

Registered Assayer, Province of British Columbia

APPENDIX

101

To: J. D. [unclear]

PAGE No. 1

BONDAR-CLEGG & COMPANY LTD.

REPORT No. - 54

DATE: Feb. 13/76

11 - 21 How Street  
Vancouver, B.C. V6C 2A9


CERTIFICATE OF ASSAY

Samples submitted: Feb. 11/76  
Results completed: Feb. 13/76

I hereby certify that the following are the results of assays made by us upon the herein described one samples.

MARKED	GOLD		SILVER								TOTAL VALUE PER TON (2000 LBS.)
	Ounces per Ton	Value per Ton	Ounces per Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent	
	<b>Fire Assay</b>										
11407 Tr 76-4	LO.002										
11408 Tr 76-1	0.009										
L denotes 'less than'											

APPENDIX C

Registered Assayer, Province of British Columbia 

(b)

## APPENDIX C

March 15, 1976.

Mr. P. Sawyer  
425 Howe Street  
Vancouver, B. C.

Dear Mr. Sawyer:

The following are results of cyanide leaching tests done on ore samples from the United Mineral Services gold property.

291.4 gram samples ( 10 assay tons ) of approximately 100 mesh pulp were leached in 10 lb/Ton sodium cyanide solution for 48 Hours.

Sample	Cyanide Soluble Gold Oz / Ton	Gold in Tails Oz / Ton	Total Gold Oz / Ton
TR 76 - 1	.0050	.0011	.006
TR 76 - 4	<.001	.0004	.001
MR - 13	<.001	.0004	.001
MR - 15	.0048	.0013	.006

R. M. Samuels



Registered Assayer, Prov. of B. C.



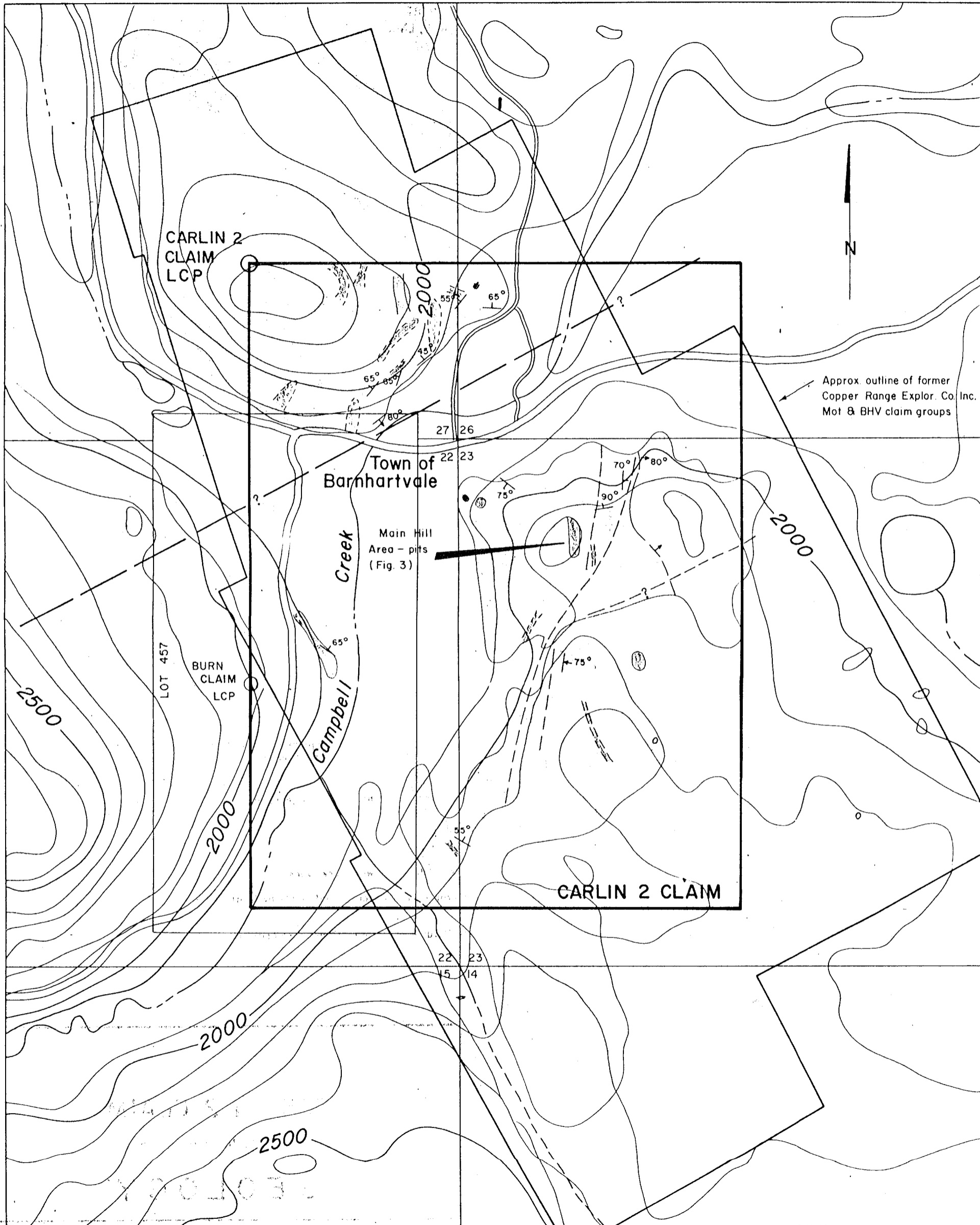
STATEMENT OF COSTS

CARLIN 2 CLAIM GROUP KAMLOOPS M.D. ~~92H/9W~~

Investigation	P. ENG. @ \$350.00/day	\$ 350.00
Field Supplies		35.40
Drafting		147.80
Transportation		342.60
Flagging		50.00
		<hr/>
		\$ 825.80
Employees		
Paul Sawyer		
Engineer's Report		775.00
		<hr/>
	Total	1600.80

This is a full statement of the costs of this report.

TO ACCOMPANY REPORT  
 BY J.B.P. SAWYER, P. ENG.,  
 DATED *May 11th. 1979.*



LEGEND

- Kamloops Group ) Early Tertiary
  - Tranquille Beds ) Early Tertiary
  - Feldspar and quartz feldspar porphyry ) Cretaceous
  - Biotite feldspar porphyry ) Cretaceous
  - Diorite ) Cretaceous
  - Granodiorite and aplite ) Cretaceous
  - Cache Creek Group (argillite, greywacke, conglomerate, limestone and mafic volcanics) ) Permian  
Intensity of shading shows degree of iron staining and bleaching of the Cache Creek Group
- 
- Fault, showing attitude, dashed where conjectured
  - Attitude of bedding
  - Attitude of joint
  - Approximate contacts between rock types
  - Area of outcrop or near outcrop identifiable by float fragments

8635

GEOLOGY after Purdy et al, Copper Range Exploration Co Inc 1973

**CARLIN 2 CLAIM**

KAMLOOPS MINING DIVISION, B. C.

**GEOLOGY**

SAWYER CONSULTANTS INC.

DATE: SEPTEMBER 1977

DRAWN BY: C. L. C.

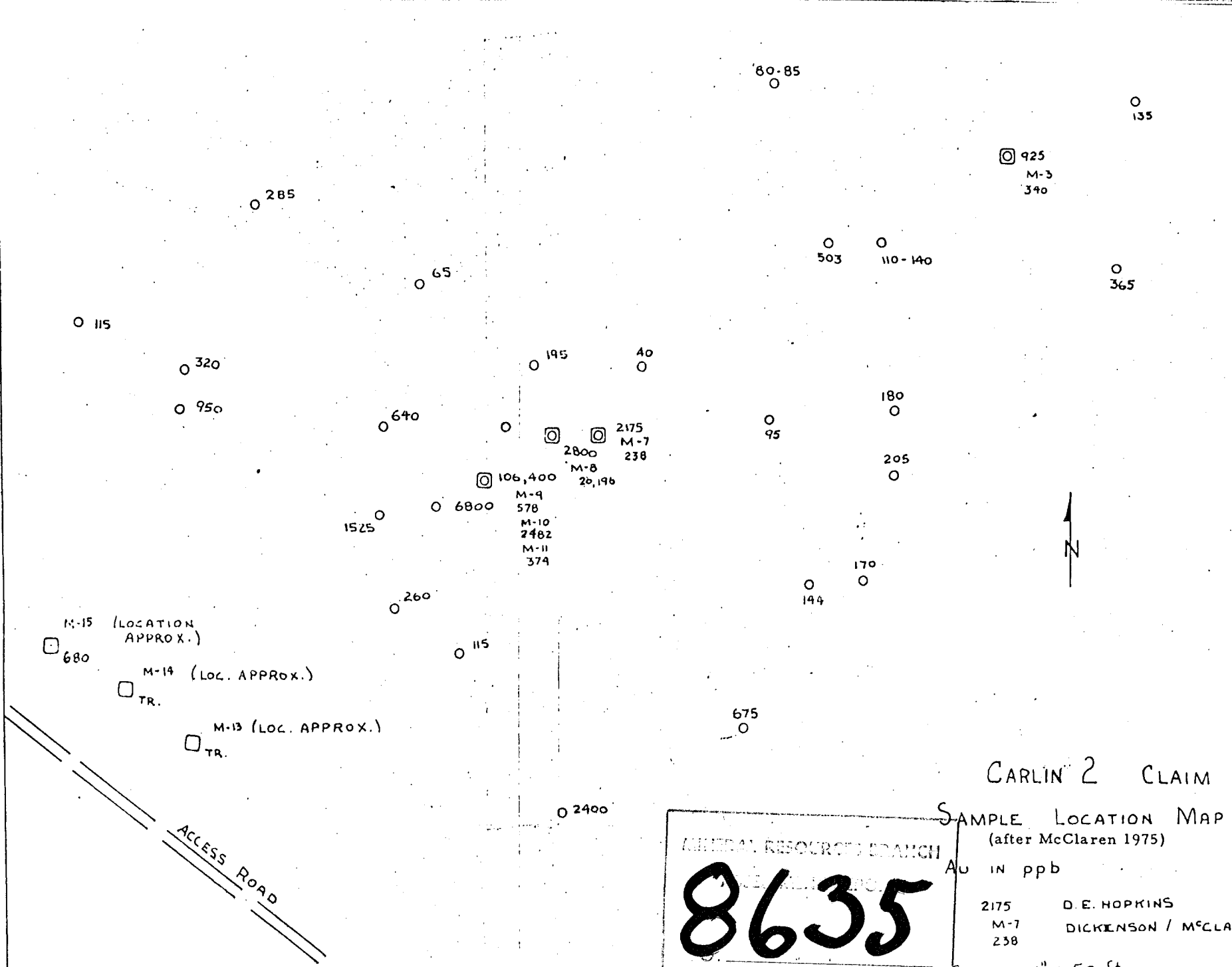
SCALE 1" = 1000'

DATE MAY, 1979

DRAWN BY: C. L. C.

R 16 W

Tp 19



### CARLIN 2 CLAIM

SAMPLE LOCATION MAP  
(after McClaren 1975)

MINERAL RESOURCES BRANCH  
 Au in ppb  
**8635**

2175	D. E. HOPKINS
M-7	DICKINSON / McCLAREN
238	

SCALE 1" = 50 ft.

Note: Compare locations for M8 etc. with location of trenches in Fig. 3. REFER TO ASSESSMENT REPT. \* 3616 MAP \* 5