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# EXPLORATION PROGRAM FOR THE WAYSIDE MINE PROPERTY, GOLD BRIDGE AREA, LILLOOET MINING DIVISION, B.C.

#### SUMMARY:

This report is essentially an update of the previous reports on the Wayside Mine property which are listed under "References", and lays out a revised program of exploration for the property which is based on present day economics.

Exploration work during 1982 consisted of the three underground DD holes to test the Wayside sheared zone and the hanging wall veins, namely "Notman" vein from the 7th and 8th level. The Number 5 adit portal was completely retimbered and repaired, and de-watering of the lower levels (from 5th level) to the brow of the 9th level was performed. Surface work consisted of prospecting and examination of the upper old workings.

The 2M adit from portal up to 220 feet was retimbered, scaled and new track was installed to reach the high grade portions left by oldtimers during the early 30's. For this reason, about 60 feet of new drifting was done to reach the glory hole. In late fall, some reconnaissance soil sampling was executed along the road about 5000 feet west of the portal of No.5 adit., Across the lake on the south shore along the Carpenter Lake, and some creeks (namely Sucker and McDonald), were subjected to geochemical soil sampling to confirm the encouraging results of previous sampling.

The work program outlined in this report includes:

a) Further surface diamond drilling of the Commodore vein to determine the extent of the high grade shoot encountered by the previous drillings, with other diamond drilling to be planned acreoss the lake on the mud flats to investigate below the 9th level.

b) further prospecting, soil sampling and the application of some geophysics to establish the relationship with the anomalous zones shown on the western end of Wayside Mine, along the powerline, and the gold values obtained through geochem on the south side shore of Carpenter Lake.

The total cost of the program as outlined is estimated at \$131,000.

## INTRODUCTION

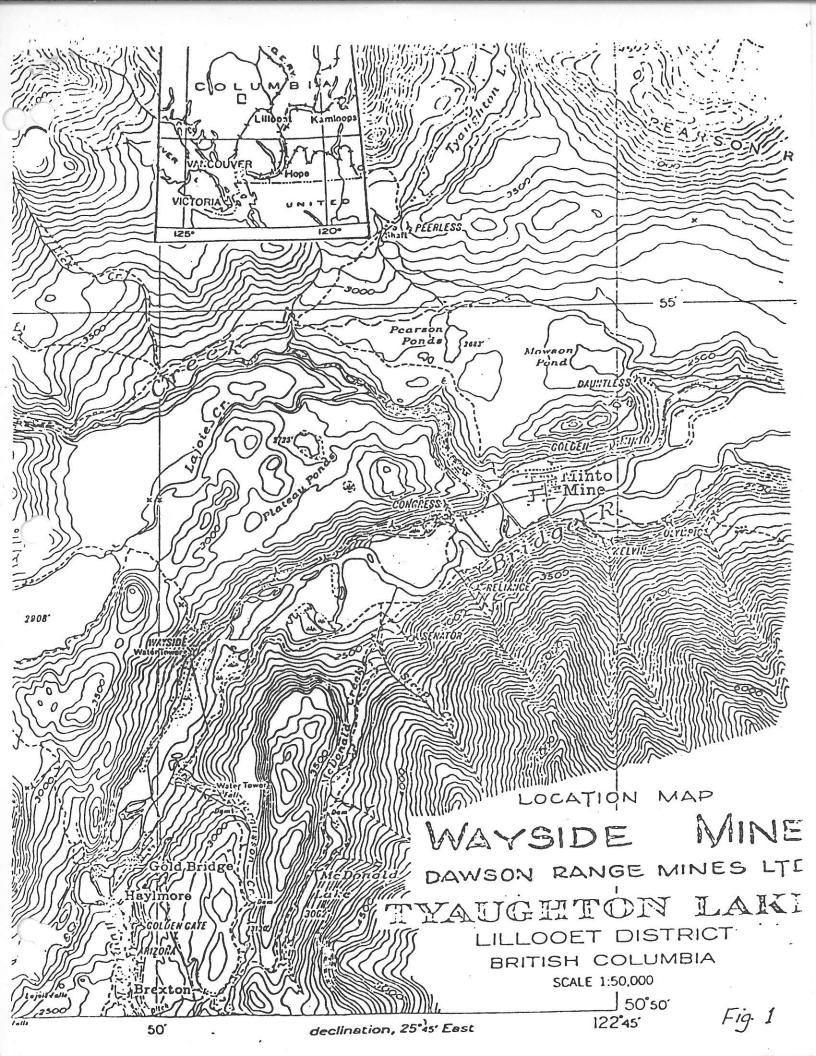
This report is an update of the report submitted by the writer March 17, 1982 and covers a complete summary of the work completed during 1982. Early history, geological setting, and exploration work accomplished up to 1982 are briefly summarized, as these sections are fully covered in the previously submitted reports listed under "References."

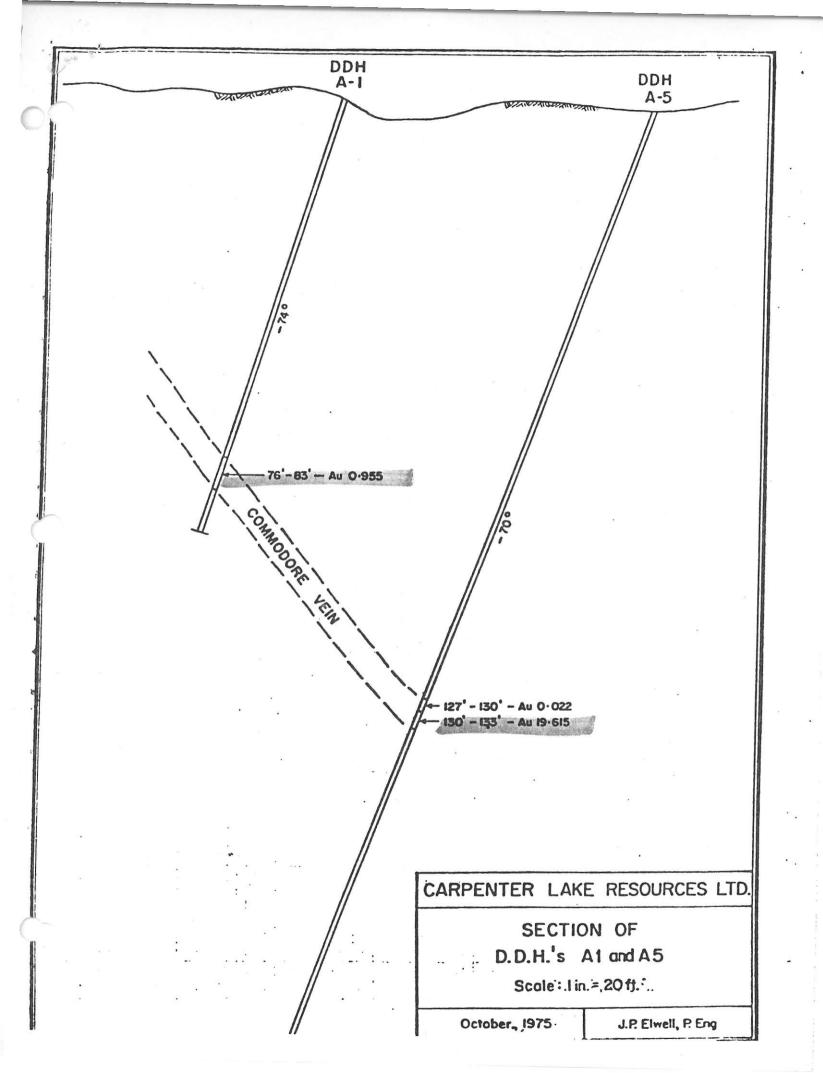
This report was prepared for Carpenter Lake Resources Ltd., 927 - 510 West Hastings Street, Vancouver, B.C., by Halim Arik, B.Sc., the Company's resident geologist, in collaboration with J.P. Elwell, P.Eng.

## LOCATION AND ACCESS

The property consists of 40 reverted Crown granted claims and 4 located claims which lie on both sides of Carpenter Lake and partially under the lake.

Access is by way of the all weather Bridge River highway from Lillooet, a distance of approximately 100km. The highway follows the north side of Carpenter Lake cutting through the claims with the mine adits being both above and below the road grade. A location map accompanies this report.



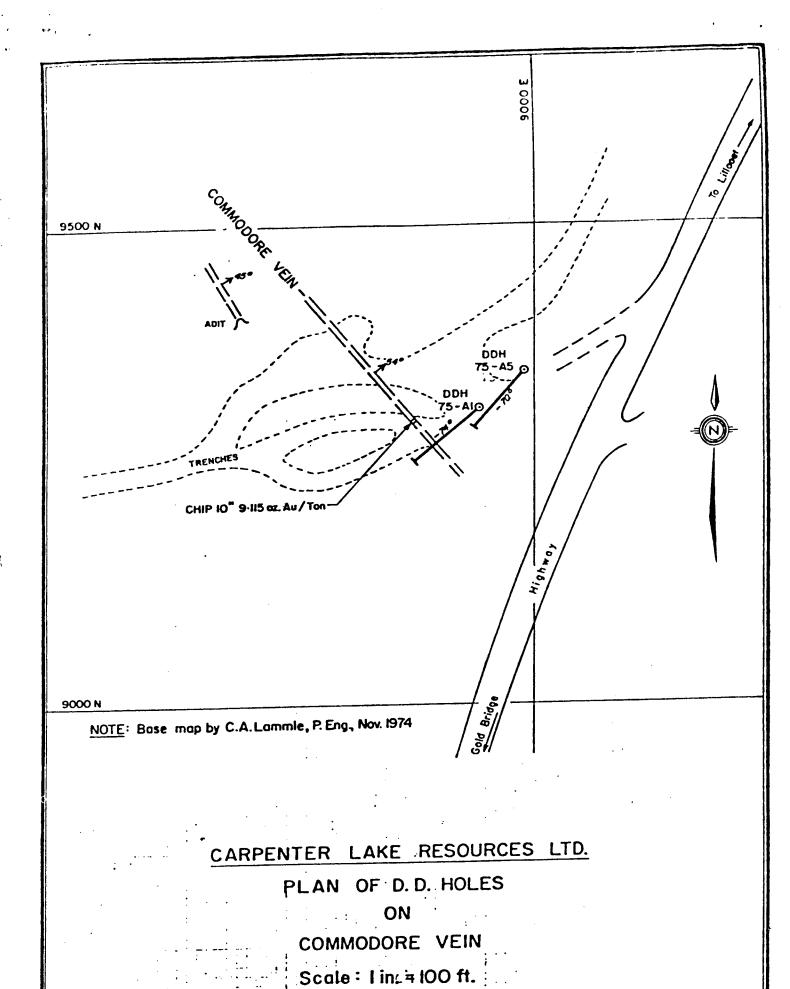


# PROPERTY:

The property consists of 40 reverted Crown Granted claims, one Mineral lease and 4 located claims as follows:

Reverted CG's	Lot No.	Record No.
Wayside	3036	Min.lease #M57
Argon	3037	417 (1)
Radium	3038	418 (1)
Helium	3039	419 (1)
Queen City Fr.	3040	420 (1)
Rodeo	5471	421 (1)
Commodore Fr.	5503	422 (1)
Lodge	5504	423 (1)
Alpha	5505	424 (1)
Beta	5506	425 (1)
Gamma	5507	426 (1)
Cabinet	5509	427 (1)
Counsel	5510	428 (1)
Newport	5511	429 (1)
Camp Denison	5512	430 (1)
Sun	5515	431 (1)
City #1	5912	432 (1)
Spring A	5913	433 (1)
Spring Fr.	5914	434 (1)
Spring B	5915	435 (1)
Spring C	5916	436 (1)
Lodge B	5917	437 (1)
Rodeo Fr.	5918	438 (1)
Wayside #2	6955	439 (1)
Lodge #2 Fr.	6956	440 (1)
Counsel #2	5628	724 (1)
Counsel #3	5630	725 (1)
Cabinet #3	5631	726 (1)
Sat #3	5472	727 (1)
Sat #1	5473	728 (1)
	,	, ,

In addition to the above reverted Crown Grants, the company has recently purchased the following reverted Crown Grants which are all internal fractions or contiguous to the main block of the Wayside property.



JUNE 1975

J.P. ELWELL, P. Eng.

Claim	Record No.	Expiry Date
Hillside #4 Hillside Fr. Riverside Lodge Extension #1 Lodge Extension Fr. Cabinet #1 Joan Fr. Wayside B. Fr. Port Fr. Alpha Fr. Diane #2 Fr.	989 990 990 1022 1023 1043 1044 1045 1047	Oct. 26, 1984 Oct. 26, 1984 Oct. 26, 1984 Nov. 9, 1984 Nov. 9, 1984 Nov. 16, 1984 Nov. 16, 1984 Nov. 16, 1984 Nov. 16, 1983 Nov. 16, 1983
LOCATED CLAIMS		
Wayside Extension #2 Wayside Fr. #1 Watside Fr. #2 Wayside Fr. #3	1089 (12) 1247 (3) 1248 (3) 1249 (3)	

All claims including the mineral lease are owned by Carpenter Lake Resources Ltd.

#### EARLY HISTORY

The early history of the property is fully covered in G.S.C. Memoir 213 by C.E. Cairnes and B.C. Minister of Mines reports from 1949 to 1952 and is briefly summarized below.

The property had two periods of mining activity, from 1910 to 1937 in which most of the underground workings were developed, and from 1949 to 1952, when the shaft was deepened to the 9th level and some drifting and diamond drilling was carried out.

#### REGIONAL AND ECONOMIC GEOLOGY

The regional and economic geology of the Wayside property was discussed in some detail by the writer in the report of April 1971 and also by Lammle in November 1974 and Kelly in February 1972 so in this report, only a brief summary covering the principal features of the property will be included.

The Wayside property is underlain by two north-south trending tongues of the Bralorne stock which has intruded the sediments and greenstones of the Ferguson series, and towards the northeast, a wide belt of the Hurley sediments. The Bralorne stock, consisting of augite diorite and soda granite is the favourable formation in this area, being the host formation for the successful Bralorne and Pioneer mines where high grade values were mined from a series of quartz fissure veins, the values extending to a depth of over one mile without a change in character or decrease.

The main workings of the Wayside Mine are all in the eastern tongue of the Bralorne stock where a wide north-south trending shear zone enclosing a quartz fissure vein has been developed over a vertical range of over 1000 feet. Hanging and footwall veins have been developed in parallel shear to the main zone.

The strike of the main shear is in general trending to northwest-southeast with a dip to the east or southeast of between 45° and 60°. Vein mineralization consists of quartz, albite, and carbonates with varying amounts of pyrite, arsenopyrite, and free gold.

To the west of the main Wayside mine workings, are a number of other quartz fissure vein structures with similar strikes and dips to the main structure, but which have been subjected to very little exploration or development. It is in these structures that the most recent exploration has been concentrated.

#### RECENT EXPLORATION

The property was acquired by Carpenter Lake Resources Ltd., in 1971 and since this time the property has been explored by geological mapping, diamond drilling, an I.P. Survey, soil sampling, and underground sampling of accessible workings (see reports by J.P. Elwell, P.Eng. dated February 7th 1979, December 19th 1980, and February 8th 1982, also report by Chas. R.R. Lammle, P.Eng. November 27th 1974.) A full summary of the 1982 exploration follows.

# Summary of 1982 Exploration

Work completed on the Wayside Mine property during 1982 consisted of (a) completion of underground DDH-W82, 7SD-U1, 8SD-U2 and 8SD-U3, three holes all together, the purpose was to probe the main Wayside shear on hanging wall side

and the Notman vein in depth. (b) Rehabilitation of #5 adit up to the inclined shaft, drifting on 2M adit, (c) De-watering of the mine down to the 9th level, and (d) Further prospecting and reconnaissance geochem sampling along the road over the zone of the Bralorne intrusive, as well as across the lake on the south shore. Details of this work are discussed in the following paragraphs:

#### (a) DIAMOND DRILLING

One underground hole was drilled from the 7th level while the other two were performed from the 8th level. Hole 7SD-Ul, which was started in early spring of 1981, was completed to a depth of 123 feet from the 7th level at elevation 1948'. Bearing was 80°, dipping + 30° northeasterly. Hole 8SD-U2 was completed to a depth of 108' from the 8th level at elevation 1843', bearing was 80° dipping + 20° northeasterly. DDH-8SD-U3 was drilled from the same location as Ul with the same bearing but horizontally, to a depth of 100 feet.

The logs of all the cores were similar, augite diorite, some sections showing mariposite alterations and silicification. Disseminated pyrite crystals were encountered in hole Ul on the 7th level.

#### (b) SURFACE WORK

Mr. H. Arik, the Company's geologist, carried out some detailed reconnaissance of the surface and accessible underground workings of the mine above the #5 level, with a view to determining the ore possibilities in the partially stoped area between #5 adit and the #1 adit, which covers a vertical range of 500 feet, and

the zone from which the bulk of the previous production during the 1920's and the 1930's was obtained.

During the past year the #5 adit was completely retimbered and repaired up to the inclined shaft. #2M adit at 2460 feet was also repaired for 200 feet by putting new tracks from the portal up to the caved zone to gain further access to other parts of the levels.

Although it is too early for the reserve estimates, spot samples taken from accessible drifts are as follows:

No. M2 adit Au 3.8 oz/ton Au 0.38 oz/ton No. 3 adit Au varies from 0.01 to 0.006 oz/ton No. 5 adit on the sheared zone and NotMan vein as well. Ag 0.1 oz/ton throughout No. 6 level Au 0.1 oz/ton sample # W-W10 Ag 0.01 oz/ton sample # W-W10 Au 0.1 oz/ton sample # W-W17 Au 0.56 oz/ton sample # W-W19 No. 7 level Ag 0.42 oz/ton sample # W-W19 Au 0.16 oz/ton sample # W-W21 Au 202 oz/ton sample # W-W22 Au 0.34 oz/ton sample # W-W8 No. 8 level Aq 0.06 oz/ton sample # W-W8 on south drift at 54 feet. Along the winze Au averaging from 0.02 oz/ton to 0.05o/t · Ag 0.1 oz/ton throughout.

Mr. Jim Turner, geologist from Newmont Exploration, got one check sample from Paxton adit which showed 16 oz/ton gold. Some of these values indicated above are taken from the main Wayside shear zone which is about 2 to 15' thick, the others came from the quartz, veins, varying in width from 10" to 7' within the shear zones.

#### (c) DE-WATERING OF THE MINE

De-watering of the lower levels was completed up to the brow of the 9th level at the end of April 1982. From the 5th level, which is the main haulage tunnel elevation, down to the 9th level, almost 600,000 gallons of water were pumped out, but from the back of the 9th level, the submersible pumps were unable to overcome the head, and at this point re-flooding of the mine was inevitable.

(d) In addition to the soil samplings done along the road from the mine, SW towards Goldbridge Village, , further reconnaissance geochem sampling was done with the co-operation of Gary Polischuk on the south shore of Carpenter Lake between McDonald Creek and Sucker Creek and on nearby hills as well. The purpose was an attempt to confirm the highly anomalous spot values from the previous samplings on the north shore. Of the 300 soil samplings, every one showed some gold and silver values, although low (Min. less than 10ppb to Max 80ppb) plus Cu and Zn values associated as the ones on Northshore along the powerline.

#### EXPLORATION PROPOSAL:

The exploration targets proposed in this report are in general, similar to those outlined in the report of December 1980 and ammended by letter of August 6th 1981, with some modifications to suit present day circumstances. The details of these current proposals are as follows:

### 1. DIAMOND DRILLING:

Surface drilling is required to delineate the Commodore vein. This vein was tested by two short holes in 1975, Al and A5, (see plan and section accompanying this report). Both holes cut high grade vein intersections, Al assaying 0.955 oz/ton Au over 7 feet, and A5 averaging 9.818 oz/ton Au over 6 feet. In 1979, two further drill holes were put down from the same site as 75-A5 to corroborate the high values cut in 1975. Hole 79S-1 drilled almost parallel, and close to 77-A5, averaged 0.695 oz/ton Au over 7 feet, and 79-S2, drilled at a bearing of 200°, or 30° to the south of 79-S1, intersected similar vein material which assayed 0.066 oz/ton Au over 4.5 feet. Two long holes, 79-S4 and S5, were drilled from the bench above Carpenter Lake to cut the projected strike of the Commodore Vein to the southeast, but these holes only cut a number of quartz veinlets with very low gold assays.

The current drilling program proposed for the Commodore Vein will consist of a number of short step out holes along strike to the southeast from the known high grade zone to determine if the vein system is cut off by faulting or if it "horsetails" out into minor stringers. Once the limits of economic grade vein mineralization have been determined, plans can be made to drive an adit drift over the vein to develop its full potential.

On the mud flats of extreme west end of Carpenter Lake, at least one long DD hole should be drilled towards the main Wayside sheared zone to probe and verify the high grade intersection out by 80-510. As we know from previous reports dated December 1980.4 February 8th 1982, Hole 8-510 was started in 1980 and was completed to a depth of 1257 feet in 1981 from a point above the #5 adit and drilled

on a bearing of  $215^{\circ}$  and a dip of  $-56^{\circ}$ .

As stated in the writer's report, dated December 19th 1980, this hole intersected quartz vein material from 685 to 700 feet, with the 10 feet from 685 to 695 having an average assay of Au 2.63 oz/ton, Ag 1.02 oz/ton. Another hole to probe the same gold bearing zone was drilled from the same site but 50 feet higher at a bearing of 235°, or 20° to the north of hole 80-S10, with a dip of -60°, and was completed to a depth of 767 feet. A section from 754 feet to 764 feet showing quartz and mariposite alteration assaying 0.003 oz/ton Au.

Projections of both holes from the surface to the underground mine plans, indicate that they cut the downward projection of the Wayside shear zone about 120 feet below the 9th level, that is, assuming no deviation of the hole from its projected dip.

For the 1983 exploration season, the main target is to explore below the 9th level because that is where the gold mineralization may become more consistant. If we compared Wayside Mine to Bralorne deposits, 7 miles south, the 16th level in Bralorne corresponds to the 9th level in Wayside Mine.

# 2. GEOLOGY, GEOCHIMISTRY-SURFACE AND UPPER LEVELS:

Detailed mapping and sampling should be continued in the accessible parts of the upper levels in order to correlate the various structures from one level to the next.

More detailed soil sampling is required along the road to the southwest to determine if the apparantly anomalous gold values encountered in the reconnaissance work are due to buried vein structures or to erratics in the overburden. If the values prove to be true anomalies, then stripping or trenching would be the next order of work.

I.P. and self potential surveys applied 7500 feet west of No.5 tunnel, along and just northwest of the highway, showed 2 anomalous zones with open ends on the north. The data suggest that the mineralization occurs in an igneous intrusive with possible extensions towards the lake bottom. The Septum theory in Lammle's report also suggest close to surface intrusive in the same region through the magnetic survey done in November 1974. Therefore, in the light of encouraging geochem and limited geophysical results, I suggest appropriate geophysical methods to be applied across the lake from the Commodore vein towards the mouth of Sucker Creek on the south shore.

# ESTIMATE OF COSTS:

#### Phase I

. . .

1.	Surface diamond drilling of Commodore vein	
	and from mud flows-1200' @ \$30./ft.	\$36,000.
2.	Mapping and sampling in upper levels	10,000.
3.	Geophysics, allow	. 10,000.
4.	Assaying, etc.	5,000.
5.	Engineering & Administration	10,000.
6.	Contingencies	15,000.
	Total	\$86,000.

#### Phase II

Drifting and crosscutting to develope Commodore vein as justified by Phase I work and provisional budget

\$45,000.

Total:

\$131,000.

Approved by

February 4, 1983

A.HALIM ARIK Geologist J.P. ELWELL ENGINEERING LTD. J.P. ELWELL, P.Eng.

#### REFERENCES

- Wayside Mine Property C.R.R. Lammle, P.Eng., November 1974
  Report on the Wayside Mine Property J.P. Elwell, P.Eng.,
  February 7, 1979.
- Report on the Exploration of the Wayside Property J. P. Elwell, P.Eng., January 21, 1980.
- Report on the Exploration of the Wayside Property J. P. Elwell, P.Eng., December 19, 1980, with ammend-letter dated August 6, 1981.
- Exploration Program for the Wayside Mine Property, Goldbridge Area, Lillooet Mining Division, B.C. J.P. Elwell, P.Eng., February 8th, 1982.

#### CERTIFICATE

- I, James Paul Elwell, of 4744 Caulfield Drive, West Vancouver, B.C. do herby certify that:
- 1. I am a Consulting Mining Engineer residing at 4744 Caulfield Drive, West Vancouver, B.C., and with an office at 1026 510 West Hastings Street, Vancouver, B.C. V6B 1L8.
- 2. I am a graduate in Mining Engineering from the University of Alberta in 1940, and am a Registered Professional Engineer in the Province of British Columbia.
- 3. I have no personal interest, directly or indirectly, in the properties or in Carpenter Lake Resources, nor do I expect to receive, directly or indirectly, any interest in such property or securities.
- 4. The findings in this report are from data obtained from the reports and maps referred to and numerous examinations of the property during 1980 and previous years.
- 5. The full text and accompanying maps may be reproduced in the Company's Statement of Material Fact.

DATED AT VANCOUVER, B.C. this 4th day of February, 1983.

ELWELL, PEng.

The following information is taken from the report of J. P. Elwell, P.Eng. dated January 21, 1980 which is referred to under the heading "References" in his report of February 4, 1983.

# Early History

"The property, previous to being acquired by the present Company, had two periods of activity, the first being from about 1900 to 1937 when a major part of the underground workings were completed and government records show a total production from 1915 to 1937 of 43,094 tons with a recovery of 5,341 oz. Au and 842 oz. Ag. The second period of activity was from 1949 top 1952 when the shaft was sunk to the 9th level and some drifting, cross-cutting and raising was done on the 9th level. Also 5,808 feet of diamond drilling was reported. 900 tons of development ore were milled but the results of this are not known.

# Recent Exploration History

The claims covering the Wayside property were acquired by Carpenter Lake Resources Ltd. in 1971, the No. 5 adit was repaired to the shaft and the mine was de-watered to the 8th level. The 6th, 7th and 8th levels were found to be in fairly good condition and some good gold values were obtained from pillars and stope remnants, but mining had been more extensive than indicated on the old plans and there was virtually no mineable ore remaining above the 8th level to the extent of the development.

The cost of maintaining the levels de-watered became excessive with the equipment in use and the mine was allowed to flood to the 5th level as it was decided for the time being to concentrate work on the workings above the adit level in the main mine and to explore some of the other vein showing to the south of the main shear.

(c) The Issuer holds a 100% interest in the following mineral claims contiguous to the Wayside property:

Claim	Record No.	Expiry Date
Hillside #4	98 <b>9</b>	October 26, 1984
Hillside Fr.	990	October 26, 1984
Riverside	990	October 26, 1984
Lodge Extension #1	1022	November 9, 1984
Lodge Extension Fr.	1022	November 9, 1984
Cabinet #1	1023	November 9, 1984
Joan Fr.	1043	November 16, 1984
Wayside B Fr.	1044	November 16, 1984
Port Fr.	1045	November 16, 1984
Alpha Fr.	1047	November 16, 1983
Diane #2 Fr.	1048	November 16, 1983

In a report dated February 4, 1983, a copy of which is attached hereto and forms part of this Statement of Material Facts, J. P. Elwell, P. Eng. comments on the past season's work as follows:

"Exploration work during 1982 consists of the three underground DD holes to test the Wayside sheared zone and the hanging wall veins, namely "Notman" vein from the 7th and 8th level. The Number 5 adit portal was completely retimbered and repaired and dewatering of the Jower levels (from 5th level) to the brow of the 9th level was performed. Surface work consisted of prospecting and examination of the upper old workings.

The 2M adit from portal up to 220 feet was retimbered, scaled and new track was installed to reach the high grade portions left by oldtimers during the early 30's. For this reason, about 60 feet of new drifting was done to reach the glory hole. In late fall, some reconnaissance soil sampling was executed along the road about 5,000 feet west of the portal of No. 5 adit. Across the lake on the south shore along the Carpenter Lake some creeks (namely Sucker and McDonald) were subjected to geochemical soil sampling to confirm the encouraging results of previous sampling."

Further discussion regarding work carried out in 1982 is set forth under the heading of "Summary of 1982 Exploration" on page 5 of Mr. Elwell's report. Cost of work done in 1982 was \$130,262. The Issuer's total cost of work done on the Wayside Property is \$962,404.

During 1972, 1973 and 1974 some bulldozer stripping, x-ray drilling, soil sampling and magnetic surveying was carried out and in September and November of 1974 Charles A. R. Lammle, P. Eng. conducted a program of geological mapping and check sampling and prepared a geological report and maps dated November 27, 1974. This report designated eight targets for exploration both on the surface and from the underground workings.

Diamond drilling was carried out on the Commodore vein in 1975 and during 1976, 1977 and 1978 a certain amount of stripping and trenching was completed for assessment purposes with the drilling program being resumed in 1979.

# General and Economic Geology

The claim area is underlain by the Ferguson series of sediments and volcanics and remnants of the Hurley River and Pioneer formations which have been intruded by two stocks of the Bralorne Intrusive consisting of augite diorite and soda granite.

Up to the present, the main area of economic interest has been the quartz veins striking northwesterly and dipping at 50 degrees to 60 degrees to the northeast which follows shear zones in the augite diorite-soda granite intrusive and carry erratic, but sometimes very rich, values in gold associated with arsenopyrite and also in the free state. The main workings of the Wayside mine all occur in the eastern most stock but the western stock which is separated from the eastern stock by a band of Ferguson and Pioneer volcanics has also been extensively explored.

Recent drilling has disclosed a previously unknown body of mineralization lying wholly within the volcanics and consisting of a wide zone of massive to disseminated sulphides, mainly pyrite with chalcopyrite and sphalerite. One hole has partially penetrated the zone to date so its size and potential is still unknown but it is unique for the area and could be of great economic importance."

