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February 21, 1997

Dave Lefebure Economic Geology Section of GSBC Ministry of Employment and Investment 5th Floor - 1819 Blanchard Street PO BOX 9329, STN PROV GOV'T Victoria, B.C. V8W 9N3

Dear Dave,

<u>RE:</u> Proposal to initiate a "Partnership Project"

Please accept this letter as an expression of interest to initiate a partnership project on the west side of Harrison Lake, New Westminster Mining Division. This is also a follow-up on the phone conversation I had with you and Tom Shroeter at the beginning of this month.

The area in question is underlain by volcanic and sedimentary assemblage forming the Harrison Terrane. These rocks represent volcanic episodes ranging from mid-Jurassic to Cretaceous in age. The younger members: Early Cretaceous Brockenbackhill, Mysterious Creek, Billhook Creek and Peninsula Formations have been adequately mapped and subdivided by A.J. Arthur of GSC in 1986 (see references and attachments). The older units in the southern portion of the area, including the majority of the area underlain by the Harrison Lake Formation, have not been mapped to date. The exception is the area in the immediate vicinity of the Seneca deposit.

At Seneca a research project led by the claim operators and GSB of B.C. in 1993 and 1995 has identified the Weaver Lake Member of the Harrison Lake Formation as a potential host for more massive sulphide deposits. Further to the north and northeast the Lower Cretaceous Fire Lake Group and possibly Gambier Group rocks (if present) also host mineral occurrences.

In 1996 Flame-Petro Minerals Corp. obtained encouraging results during the diamond drilling program just east of Celia Cove on the L.D. group of claims. Precious metal mineralization was intersected in 5 of the seven holes drilled across zones of quartz carbonate veins and breccias mineralized with pyrite, native silver and minor chalcopirite, sphalerite, galena and argentite. Assays of up to 8.61 g/t gold and 46.2 g/t silver accross 10 feet were obtained. The intersection in DDH 96-5, with the native silver, returned 4.68 g/t gold and 383.7 g/t silver across 20 feet (D.Cooke, 1996 Assessment Report - see attachment)..

It appears that this type of mineralization is associated with guartz-diorite plutons of mid-Tertiaty age is similar to Doctor's Point and Harrison Gold (formerly RN Mine) prospects located in the Harrison Lake area. The hosts of the mineralization on the L.D. claims (the south west side of the lake) are the volcanics of the Harrison Lake Formation.

The diversity of the mineralization types and a high potential for new discoveries is certainly encouraging and deserves attention of the research and mining community. However, except for the Doctor's Point and Seneca, the prospects are at the early stage of exploration. In addition the lack of mapping coverage presents some difficulty in identifying more prospective areas. Most of the junior companies do not have the capability and financing to conduct well design mapping projects.

The project, if it meets your criteria, would benefit from its cost effectivness since the road access is very good and the winters are very mild in the area allowing for a year round work in most years. It would also be conducted in the area which has lately been identified by the geologists from your survey unit as having the highest mineral potential in the southern part of Mid-Coast Region

In recent years the attention to the area situated to the east and north-east of Seneca deposit has been brought forward by Les Demczuk, an exploration geologist, who had owned the L.D. group of claims since 1989. He passed away last year not being able to see the fruit of his determination borne after th last five years of his involvment there. The drilling results are indeed very good and require further follow-up (see attachments).

I have am a co-owner of claims contigiuous with the L.D. group and am also representing the beneficial owner of these claims to find a suitable operator. I would make the best effort to ensure that the future optionees of the above mineral rights allow for \$10,000 to \$15,000 from their annual exploration expenditures for the partnership projects with the Geological Survey branch of the B.C. Government. This would be proposed for 1997 and 1998 if I am successful in marketing the claims this year.

Foreland Geoscience Inc. is a geological consulting company wholly owned by me which provides exploration services to the owners and operators in the area. I have office premises in Maple Ridge which could be utilized by your geologists free of charge if needed.

I hope you are able to put together an interesting mapping project this year in the Harrison Lake area with my help and as a partnership with the claim operators. I appreciate the opportunity to put this proposal forward.

Yours truly,

Ary Chris Baldys

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Stratigraphy along the west side of Harrison Lake, southwestern British Columbia

Project 800029

A.J. Arthur¹ Cordilleran and Pacific Margin Division, Vancouver

Arthur, A.J., Stratigraphy along the west side of Harrison Lake, southwestern British Columbia; in Current Research, Part B, Geological Survey of Canada, Paper 86-1B, p. 715-720, 1986.

Abstract

A relatively undeformed, fossilferous, Triassic to Middle Albian section concludes two major volcanic episodes: one during the Middle Jurassic (Harrison Lake Formation) and the other during the Early Cretaceous (Brokenback Hill Formation). They are separated by argillite (Mysterious Creek Formation), volcaniclastic rock (Billhook Creek Formation), and conglomerate and sandstone (Peninsula Formation).

Two and possibly three unconformities were found within the section. The first spans the Triassic-Jurassic boundary between Middle Triassic Camp Cove Formation and Toarcian sediments of the Harrison Lake Formation. The second unconformity lies between Oxfordian Billhook Creek Formation and the Berriasian Peninsula Formation. Evidence for a minor orogenic event during the second hiatus has been noted. The third unconformity is not seen but evidence points to a hiatus spanning the Bathonian.

The Harrison Fault is the dominant structural feature juxtaposing highly deformed, metamorphosed rocks, to the east against the little deformed strata to the west of Harrison Lake.

Résumé

Une coupe fossilifère relativement non déformée et datant du Triassique moyen à l'Albien moyen marque la fin de deux importants épisodes volcaniques: un durant le Jurassique moyen (formation de Harrison Lake) et l'autre au cours du Crétacé inférieur (formation de Brokenback Hill). Elles sont séparées par de l'argilite (formation de Mysterious Creek), des roches volcanoclastiques (formation de Billhook Creek), du conglomérat et du grès (formation de Peninsula).

Il y a deux et probablement trois discordances dans cette section. La première s'étend le long de la limite du Trias et du Jurassique, entre la formation de Camp Cove, qui date du Trias moyen, et les sédiments du Toarcien de la formation de Harrison Lake. La deuxième discordance s'étend entre la formation de Billhook Creek de l'Oxfordien et la formation de Peninsula du Berriasien. On a relevé certaines indications selon lesquelles un événement orogénique peu important aurait au lieu au cours du second hiatus. La troisième discordance ne se voit pas, mais tout semble indiquer la présence d'une lacune stratigraphique au cours du Bathonien.

La faille Harrison, soit la formation structurale la plus importante de•la région, jouxte des roches très déformées et métamorphisées à l'est, ces dernières gisant contre des strates très peu déformées à l'ouest du lac Harrison.

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Figure 75.1. Geology of study area west of Harrison Lake (see Monger, 1986, for location map).

Introduction

Field work along the west side Harrison Lake was undertaken in trasummer of 1985 as part of M.Sc. resear-(at U.B.C.) in an area which contains orof the most complete stratigraph sections in the southern Coast Mountain. The purpose of this project is to remap traarea between Harrison Lake and Chehal. Lake north to Doctor's Point, as it has no: been studied as a complete section since 1925 (Crickmay, 1925), with emphasis or 1925 (Crickmay, 1925), with emphasis of the Jura-Cretaceous strata.

area mapped to date

The writer is thankful to D. Handel. S. Irwin and M. MacLean for their valuable assistance in the field, and to J.W.H. Monger, H.W. Tipper and P.L. Smith for suggesting the project and offering many stimulating ideas.

Stratigraphy and lithology

The strata along the western shores of Harrison Lake range from Middle Triassic to Middle Albian. In the central part of the map area, around Mystery Creek (Fig. 75.1), the beds dip uniformly at 30-50° towards the northeast but north and south of this area, attitudes become more The stratigraphic section variable. contains two major volcanic episodes, the Lower to Middle Jurassic Harrison Lake Formation to the south and the Early Cretaceous Brokenback Hill Formation to the north. These are separated by shales of the Mysterious Creek Formation, volcaniclastic rocks of the Billhook Creek Formation and sandstones of the Peninsula Formation.

Camp Cove Formation

The Middle Triassic Camp Cove Formation is the oldest unit in the map area (Fig. 75.2) as indicated by radiolaria from a siliceous argillite (Cordey, personal communication, 1985). Conodonts extracted from the same siliceous argillite by the writer had a Middle Triassic age (personal suggested Orchard by communication, 1986) based on the presence of Neogondolella cf. constricta. Other lithologies in this formation are green plagioclase porphyry flows, tuffs and sandstones. The base of the Camp Cove was not seen.

Harrison Lake Formation

The Harrison Lake Formation unconformably overlies the Camp Cove Formation. The unconformity is marked by a basal conglomerate and although no fossils were found in the matrix, numerous fossils were found in the clasts. Weathered calcareous clasts within the conglomerate contain abundant rhomboporoid bryozoa and crinoid fragments as well as less abundant rhynchonellid brachiopods and Fi

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REPORT ON GEOCHEMICAL SURVEYS

ON THE LD MINERAL CLAIMS

HARRISON LAKE AREA

NEW WESTMINSTER MINING DIVISION

NTS 92H/5W

LATITUDE	49° 20'	NORTH
LONGITUDE	121° 50'	WEST

FOR

FLAME PETRO-MINERALS CORP.

BY

CHRISTOPHER BALDYS, P.ENG.

JUNE 4, 1996 VANCOUVER, B.C.

6. REGIONAL GEOLOGY AND METALLOGENY

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The valley containing Harrison Lake and extending north past Pemberton is eroded along a broad fault zone which belongs belong to Coast Belt Thrust System (J. Monger, M. Journeay 1994). Pensylvanian to Permian limestones and sediments (Chilliwack Group) and older gneissic rocks on the east side of the lake are seperated by the Harrison Lake fault zone from younger and less deformed rocks of the Harrison Terrane on the west side (Figure 3). The Harrison Terraine comprises of a sequence of Triassic to Cretaceous volcanic and sedimentary rocks. The stratigraphic section contains two major volcanic episodes, the Lower to Middle Jurrasic Harrison Formation to the south and the Early Cretaceous Brockenbackhill Formation to the north (A.J. Arthur, 1986). These are seperated by shales of the Mysterious Creek Formation, volcaniclastics rocks of the Billhook Creek Formation and sandstones of the Peninsula Formation.

The most significant economically prospects in the area with resources delineated by drilling are:

Deposit	Reserves (Tonnes)	Gold Grade (oz/t)	
Rn-Geo	2,400,000 (probable)	0.12	
Doctor's Point	132,000 (probable)	0.10	
Seneca	1,660,000 (probable)	0.024	(3.6% Zn, 0.63%Cu, 1.20 oz/t Ag)

The Seneca massive sulphide deposit is located 10 kilometres west of LD claims (Figur 3). It was first discovered in 1951 however more zones were uncovered in subsequent years as the logging operations exposed more outcrop. The last discoveries in the area were made in 1986 during logging and in 1991 through drilling.

The stratigraphy hosting the deposit consits of massive to normal-graded dasitic and andesitic volcaniclastic sediments and lava flows that were intruded before lithification by rhyolitic to andesitic synvolcanic sills and dykes. This succession comprises part of the Lower to Middle Jurassic Weaver Lake Member of the Harrison Lake Formation. Mineralization consists of conformable lenses of massive, semi massive and disseminated sulphides and stockwork style sphalerite-pyrite-chalcopyrite-quartz veinlets and stringers. The hydtorhermal fluids were possibly channeled by steeply dipping structures which have been feeders for the extrusive felsic domes and flows which host the mineralization. The age of felsic volcanic episode is Late Triassic-Mid Jurrasic.

The second type of precious metal mineralization in the area is associated with the Harrison Lake fault system (Figure 3). The gold is hosted by sulphide-bearing quartz veins and stockworks that cut metasedimentary and volcanic rocks. The mineralization is associated quartz-diorite and diorite plutons of mid-Tertiary age. Gold occurrs in free state and as silver bismuth telluride with or without base metals.

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LIST OF REFERENCES

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- 1. Arnold, R.R., 1987, Geological and Geochemical Report on the Jogo Mineral Claim, for Owen Ventures Inc.
- Arthur, A.J., 1986, Stratigraphy along the west side of Harrison Lake, southwestern British Columbia in Current Research, Part B, Geological Survey of Canada, Paper 86-1B, p. 715-720
- 3. Cooke, D.L., 1991, Geochemical Assessment Report of the LD1 and LD2 claim, Harrison Lake Area
- 4. Coveney, C.J., 1975, Assessment Report, Diamond Drill Holes 3, 7, 8, and 9, Weaver Lake Property, New Westminster M.D. For Aaron Mining Ltd.
- 5. Demczuk L., 1994 Geological and Geochemical Report on the LD 2 Mineral Claim for Flame-Petro Minerals Corp.
- 6. Friesen, P.S., 1987 Report on the Weaver Lake Property, New Westminster M.D., for Aaron Mining Ltd.
- McKinley, S.D. et al., 1993, Geology of the Seneca Prospect, Southwestern British Columbia (92H/5W) in Geological Fieldwork 1993, Paper 1994-1
- McKinley, S.D. et al., 1995, Volcanic Stratigraphy and Lithogeochemistry of the Seneca, Prospect, Southwestern British Columbia (92H/5W) in Geological Fielwork 1994, Paper 1995-1.
- 9. Medford, G. A. 1992, Geological and Geochemical Assessment Report on the King Mineral Claims, Harrison Lake Area.
- 10. Monger, J.W.H, Murray, J.J., 1994, Guide fo the Geology and Tectonic evolution of the Southern Coast Mountains, Geological Survey of Canada Open File 2490

D. L. COOKE AND ASSOCIATES LTD.

MINERAL EXPLORATION CONSULTANTS

ASSESSMENT REPORT 19**95** DIAMOND DRILLING

ON THE

LD MINERAL CLAIMS HARRISON LAKE AREA

CONFIDENTIAL

NEW WESTMINSTER MINING DIVISION N.T.S. 92H/5W LATITUDE: 49° 20' NORTH LONGITUDE: 121° 50' WEST

FOR

FLAME PETRO-MINERALS CORP. 185 - 10751 SHELLBRIDGE WAY, RICHMOND, B.C., V6X 2W8.

ΒY

DAVID L. COOKE, PH.D., P.ENG. D. L. COOKE & ASSOCIATES LTD. 811 - 675 WEST HASTINGS STREET, VANCOUVER, B.C., V6B 1N2.

CLAIMS ON WHICH WORK WAS DONE: LD 2 WORK PERIOD: JUNE 7, 1996 TO JULY 6, 1996

REPORT DATE: OCTOBER 15, 1996

SUMMARY OF 1966 DRILL RESULTS

DDH 1	TOTAL <u>DEPTH (Ft)</u> 406	FROM <u>(Ft)</u>	TO <u>(Ft)</u>	WIDTH (Ft) No	Au <u>(q/t)</u> significant	Ag <u>(q/t)</u> values
2	396			No	significant	values
3	351 and	239.5 259	245 264	5.5 5.0	0.42 1.07	3.2 5.0
4	405 incl. and	30 35 70	6 0 4 0 8 0	30.0 5.0 10.0	1.37 4.01 8.61	41.6 102.0 46.2
5	315 and	85 142	105 145	20.0 3.0	4 .68 2.06	383.7 21.4
6	377	20	25	5.0	0.89	27.0
7	250	45	50	5.0	1.30	48.0

Precious metal mineralization was intersected in 5 of the 7 holes drilled. Two zones of mineralization were penetrated in DDH 96-3, 96-4 and 96-5 and a single zone in DDH 96-6 and 96-7. From the drill sections (Figures 5A and 5E) the mineralization appears to dip steeply to the south. The two zones intersected in DDH 96-4 and 96-5 are probably the same ones intersected at depth in DDH 96-3. This mineralization occurs in strongly silicified, brecciated or fractured zones within or close to the margins of diorite intrusion. Gold and silver occurs together with abundant pyrite in quartz-carbonate veins and breccia zones. Traces of chalcopyrite, galena and sphalerite are associated with the precious metals. The best values occurred in DDH 96-5 where native silver was observed at a depth of 97.5 feet. The interval 85'-105' returned assays of 4.68 g/t Au and 383.7 g/t Ag over 20'. Sections of medium-grained diorite intrusive rock (dikes or apophyses) were intersected at various depths in drill holes DDH 96-3, 96-4 and 96-5. The rocks adjacent to the diorite appear to be pyritic rhyolite and/or silicified andesite, cherty sediments Minor amounts of andesite and volcaniclastic and tuffites (?). sedimentary rocks occur near the base of these holes. No prominent intrusive mass was encountered in DDH 96-1, 96-2, 96-6 and 96-7. However, broad sections of rhyolite, dacite and cherty siliceous rocks were intersected in these holes. The preponderance of rhyolite and dacite lapili and agglomerate in holes DDH 96-1 and 96-2 may be indicative of "footwall" volcanogenic environment.