He Chapail
Lumby B.C.
Box 245

REPORT ON

CHAPUT MINES - LUMBY, B.C.

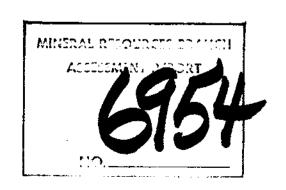
VERNON MINING DIVISION

for

COAST INTERIOR VENTURE LTD. (N.P.L.)
LUMBY, B.C.

G.C. Singhai, M.Tech.; P.Eng.

Richmond, B.C.
October 6, 1977



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#### SUMMARY

The 25 mineral claims of Chaput Mines Ltd. in the Vernon Mining Division, B.C. are located about one mile north of Lumby, B.C. The property overlies the high grade metamorphosed sediments of Cache Creek group of carboniferous age and older rocks of Monashee group of Pre-Cambrian age. These metasediments are intruded by granitic stock which provides an excellent geological environment for ore deposits. The ore body is a vein type of deposit, which is lenticular in shape and it is pitching east by 4° to 27°. These lenses are en-chalon shaped. It is partially mined. 2,000 tons of \$72.00 per ton value ore had been shipped to Trail Smelter by F.K. Explorations Ltd. in 1969. Mr. Chaput had mined and milled 500 tons of ore and shipped 45,533 tons of concentrate to Trail Smelter, of \$78.00 per ton value during 1976.

The mill test indicates that this ore is very simple and will make a concentrate which will contain 532.00 oz. of silver, 42.0% of lead, 5.18% of copper and 4.70% of zinc.

The E.M. and Geochemical anomalies coincide with each other over the total length of 4,400°. About 600° of anomalous zone is tested by 1,370° of diamond drilling in five drill holes to the maximum depth of 442° during the period of July, 1977. It did not intersect very high grade ore but the results are encouraging. Therefore, an underground diamond drilling and underground exploration work is recommended - to cost \$68,200.00.

REPORT ON

#### SILVER, LEAD, ZINC DEPOSITS

AT LUMBY

VERNON MINING DIVISION. B.C.

FOR

COAST INTERIOR VENTURE LTD. (N.P.L.)

#### INTRODUCTION

This report is prepared at the request of Mr. Wallace Chaput of Lumby, B.C., the President of Coast Interior Venture Ltd.(N.P.L.) with registered office at 701 West Georgia Street, Vancouver, B.C. The report is on 25 mineral claims of Chaput Mines in the Vernon Mining Division, B.C.

It is based on the personal supervision of a diamond drilling program which was carried out during the month of July, 1977. It is an implementation of Phase One of the report written by the author, dated May 11, 1977. The author had also referred other information which had been made available. The writer has been working on this property since 1970. Therefore, he had a good knowledge of this property. This program was undertaken to test the E.M. and Geochemical anomalous zones and evaluate the results of this work, and to recommend further exploration work if it warrants.

#### PROPERTY AND OWNERSHIP

The property consists of 25 located mineral claims, which are as follows:

Name of Claims	Record Number	Expiry Date
Chaput 1 - 4 inc.	9042 - 5 inc.	July 13, 1978
Chaput 5 - 8 inc.	10858 - 61 inc.	April 8, 1978
Chaput 9 & 10	10856 & 7	April 4, 1978
Chaput 11 & 12	10862 & 3	April 8, 1978
Chaput 13 & 14	11211 & 11212	June 18, 1978
Chaput 15 & 16	11229 & 11230	June 25, 1978
Chaput 17 - 24 inc.	11475 & 11482 inc.	Sept. 3, 1978

These claims are located according to the Mineral Act of the Province of British Columbia. The Alberta Gypsum Limited holds these claims by agreement with F.K. Explorations Ltd. and others up until the end of June, 1975, but later on, the option was dropped by Alberta Gypsum Ltd., and the property was reverted to Chaput Brothers of Lumby, B.C. They optioned the property to Coast Interior Venture Ltd. (N.P.L.).

#### LOCATION AND ACCESSIBILITY

The property is located about one mile north of Lumby, B.C. on the east side of Basetta Creek, and accessibility by 1-1/2 miles of all weather gravel road from Lumby in any type of vehicle. Lumby is primarily a logging town which is about fifteen miles east of Vernon on Highway No. 6. This highway connects the Okanagan and Arrow Lakes area and Trail, which is 275 miles S.E. of Lumby, and where Cominco Smelter is located. The concentrate from the mine can be shipped to Trail by this highway throughout the year. It is also accessible by air, railways and paved highway from Vancouver, B.C. Lumby is 345 miles east of Vancouver seaport. The main supply can be available from the town of Vernon.

#### TOPOGRAPHY, VEGETATION AND CLIMATE

The property is located about 2,500' of elevation from sea level and about 250' from the valley bottom at Monashee Mountains. The hills are on either side and rise gently to an elevation of about 6,000'.

There is good growth of coniferous forest of fir, hemlock, cedar, balsam and pine and, therefore, good supply of timber is available for the mine.

The climate is one of the best in Canada and ideal for work throughout the year. The temperature varies from 20°F, to 100°F, and is rarely below zero. Rainfall is sufficient to support vegetation and more than enough supply of it for mining and milling. The writer has been informed that the water rights are obtained. An artesian well is dug and a water pump is established. The capacity of the pump is approximately 60 gallons per minute, which is enough supply of water to mine and mill

throughout the year.

#### PROGRAM

During the period of July, 1977, the following program was conducted:

- (1) 1,370' of diamond drilling was completed by drilling five holes to the maximum depth of 442'.
- (2) The total core of 1,370' was logged and mineralized sections of core was sampled and analyzed for lead, zinc, copper, gold and silver by Chemex Labs Ltd., 212 Brooksbank Avenue, North Vancouver, B.C.
- (3) These five diamond drill holes were surveyed by the author.
- (4) A topographic map of the property was prepared with 10' contour intervals at a scale of 1" = 100' by McElhanney Surveying and Engineering Ltd. of Vancouver, B.C.
- (5) Diamond drill hole sections were prepared.

#### HISTORY

The F.K. Explorations Limited had shipped approximately 2,000 tons of crude or milled ore to Trail Smelter with a net smelter return of about \$60.00 per ton. For this shipment, a penalty for copper content was paid. About 300 tons of milling grade ore was sent to waste or stock-piles which was used as road material at the mine site. This ore can be recovered and treated through the mill. The F.K. Explorations Limited has driven two adits and two sublevels. About 2,000' of underground and 1,600' of surface diamond drilling was also done by x-ray drill machine, but location of these holes on ground and map could not be determined, as holes are not surveyed.

The author had, in his report of June 14, 1971, estimated that about 9,831.6 tons of ore grading \$19.16 per ton is available without further development work (see Appendix No. I). During the period of 1975 about 500 tons of ore was mined and milled and 45.5 tons of concentrate had been shipped to Trail Smelter and received payment of \$39,036.48 or \$78.07 per dry ton or ore.

In December, 1969, 1,107 dry tons of ore was shipped to Trail Smelter, with a net value of \$82,400.00 or \$72.44 per dry ton (see Appendices No. II and IIB).

240 lbs. of representative sample was collected from underground workings and shipped for the metallurgical and mineralogical studies on May 12, 1971 to the Department of Energy, Mines and Resources, Ottawa, Mineral Science Division and Mineral Processing Division. These studies were conducted by D. Raicevic and R.W. Bruce and D.R. Ownes.

#### GENERAL GEOLOGY

Most of the area is underlain by rocks of the Shuswap terrain followed by the younger rocks of Cache Creek group of permian or carbon-inferous age. The age and structure of these series is controversial.

The sequence of formation is as follows:

#### PALAEOZOIC (Carboniferous)

Cache Creek Group (Argillite, Andesite, Basalt, Lava,

(Tuff, Diorite

Unconformity(?)

#### PRECAMBRIAN

Silver Star Intrustion Granite, Pegmatite

Intrusive Contact

Monashee Group (Granitoid Gheiss, Micaschist, Biotite (Schist, Phyllite, Quartzite, Limestone (Hornblends, Gneiss

#### GEOLOGY OF THE AREA

The property overlies the older formations of Shuswap terrain of Monashee group of Precambrian age and the younger metamorphosed sediments of carboniferous age. The Monashee group of rocks consist of highly metamorphosed gneiss, augen gneiss, banded biotite schist, which is sometimes calcerious and thin bands of quartzite and limestone are also noticed. These formations are well exposed in the underground workings and in the mining area. The general strike of those formations is almost east and west and dipping  $50^{\circ} - 70^{\circ}$  south, but in the northeast part of the area they are dipping northernly. The common minerals are quartz, feldspar, biotite, muscovite, amphiboles, pyroxene and garnet. Feldspar occurs as augen shape in augen gneiss. Biotite schist consists of thin layers of dark and light minerals. The formations are so closely interbedded that it is difficult to define the contact.

The younger Cache Creek formations of carboniferous age are comprised of argillite, limestone and volcanics. Argillites are thin bedded, and light gray coloured bands of silicified material are also noticed. It is striking east and west and dipping by  $60^{\circ}$  ~  $70^{\circ}$  south but in the northeast part of the area it dips north. These variations in the direction of dip could be local. Argillite occupies the middle part of the area and Monashee group of rocks occur on either side of it.

The present diamond drilling area is mainly occupied by impure limestone. This limestone is intruded by diorite dykes which are slightly metamorphosed.

Medium crystalline light gray to pinkish coloured granite occurs in the south east part of the area, which is slightly gneissosed.

In the mining area, the rocks are badly broken, pyritized silicified and altered to epidote, chlorite along with the secondary quartz and calcite minerals are noticed. Serpentinization and sericitization are very prominent along the shear zones. Minor drag folding in the rocks and along the shear zones are noticed.

A fault along shear zone is noticed on the back of the Adit No. 1 and 2 which mostly strike east and west and dips 55° to 70° south. This shear zone seems to be continuous and pretty well follows the quartz veins which indicates that the mineralization is post shearing. These shear zones could be the channel ways for mineralization.

#### MINERALIZATION AND OCCURRENCE OF ORE

In this area, the ore occurs as a vein type of deposit with the mineral assemblage of quartz, galens, argentite, sphalerite, tetrahedrite, minor chalcopyrite, pyrite and pyrohotite. But the presence of other minerals such as marcasite, arsenopyrite, rutile, goethite, calcite mica, chloite, feldspar and epidote is also noticed by Mr. D. Raicevic, the Research Scientist of the Department of Energy, Mines and Resources, Ottawa, in his mineralogical studies of the ore sample. This type of veins system has been traced up to 4,000' at surface in the general direction of strike of the main vein, either by bulldozing or by surface geological mapping. These veins are almost parallel to each other.

It is difficult at this stage to follow any one of the veins due to the number of fractures, folding and displacement. It is also true in case of the main vein, which has been mined and explored in the upper adit. The general strike of the main vein system is  $70^{\circ}$ E with a variable width of 2 to 2-1/2 feet and dip  $65^{\circ}$  south. During the period of the writer's working underground, he noticed that there are two different types of veins though their attitude is more or less the same, but at 40 + 30E and 17N + 00E, 40 + 30E and 18N + 00E two quartz veins are occurring which are dipping north.

The main quartz vein system which makes the ore is of primary origin and traced in sublevel No. 1 and sublevel No. 2, but missing in the lower adit as the location of this adit is too far north. This primary vein in the lower adit can be exposed by driving crosscuts toward the south to intersect its extension at depth. The other quartz veins are barren and of secondary origin. The quartz is considered to be released during the process of metamorphism, and it has followed the weak zone which is parallel

to the foliation of the schist and gneiss. But the primary quartz veins are probably introduced as a result of intrusion along faulting by jurassic intrusions of variable composition which on differentiation contributed to the deposition of the metallic minerals. If these minerals are present in sufficient quantity, it can make the ore. Mr. J.A. Mitchell had noticed one of these intrusive stocks very close to the ore and at least one vein can be traced out from this intrusive body which is striking in the general direction of the main vein but has a north dip opposite to the main vein. It is noticed that the main vein is lenticular in shape though continues up to 480' in the upper adit. These lenses are 1' to 2' long and 1" to 6" in width with or without massive to semi-massive ore. At the end of sublevel No. 1, it also indicates a plunge of the lens toward the east at about 27° which indicates the continuation of ore towards east and at depth. It is confirmed by the present diamond drilling (a section looking south through DDH-77-1, 2, 3, 5, 6).

It has been noticed that the mineralization has been deposited in two different periods. The galena, argientite, pyrite and pyrrhotite are deposited earlier than chalcopyrite and sphalerite as the last two minerals are mostly distributed along fractures and interstitially between quartz and galens.

The channel sampling of underground working has also indicated that the hanging wall is better mineralized than the foot wall which could be the indication of more ore to the south than to the north part of the mine.

The present diamond drilling and mining of 1975 indicates that the ore occurs in lenses which may be slightly overlapping each other and pitching toward east by 4° to 27°.

#### DIAMOND DRILLING

The Coast Interior Venture Ltd. (N.P.L.) had completed 1,370 feet of diamond drilling by drilling five holes to the maximum depth of 442 feet during July, 1977. The locations of these diamond drill holes are marked

on the topographic map of the area. This drilling was carried out to test the E.M. and Geochemical anomalies over the strike length of about 600 feet.

<u>DDH-77-1</u> is drilled up to the depth of 275' at -62° due N10°W and intersected vein material at 123.0' - 125.5'; 131.0' - 133.5', and 157.0' - 159.5'. These intersections carried minor mineralization of lead, sphalenite and chalcopyrite along fractures.

DDH-77-2 This hole is drilled up to the depth of 230' at  $-60^{\circ}$  angle and due N10°W. It had intersected vein material at the depth of 148.5' - 150.8'; 159.0' - 164.5', and 213.5' - 215.0'.

 $\overline{\text{DDH-77-3}}$  is drilled to the depth of 442.0' at -60° angle due N31°E and intersected a quartz vein at 147.0' - 154.0'. It is the deepest hole drilled.

 $\overline{DDH-77-5}$  is drilled to the total depth of 103' at -45° due N20°E. It did not intersect any vein or vein material.

DDH-77-6 is up to the depth of 320' at -75° dip and due N10°W. It had intersected brecciated zones at 35.0' to 50' and 80' - 84', 132' - 135', and vein at 171' - 173'. For detail description, see Drill Logs.

#### SAMPLING

The mineralized sections of the core had been split into two halves. The one half was sent to Chemex Labs Ltd., 212 Brooksbank Avenue, North Vancouver, B.C. for analysis. It was assayed for lead, zinc, copper, silver and gold. For assay results, see Appendix III.

#### CONCLUSIONS

The present diamond drilling program indicates that the ore deposit is in lenses which may be overlapping each other or enchlon shaped and there is more than one vein which carries minerals.

These lenses are pitching toward east by 4° to 27°.

The high grade ore which was mined during the period of 1969 - 1975 between upper adit and lower adit also supports the above conclusion. Although present drilling did not intersect the high grade section which had been mined, it is still encouraging.

The past drilling also had the same results. In other words, the best way to do the exploration is to undertake underground exploration program. In the opinion of the writer, the area still has a good potential to find the high grade lenses of ore.

Some of the electromagnetic and geochemical anomalous zones coincide with the known areas of high grade ore lenses which have already been mined in the past on this property. There are still these anomalous zones which are left untested and can be explored by continuing the present underground workings and underground diamond drilling and can increase the ore reserves.

The company has all basic mining equipment and 100 tons per day capacity mill for which no additional cost is required and the property can be put into production without incurring too much cost if it warrants. Therefore, further exploration work should be undertaken.

#### RECOMMENDATIONS

As a result of the above studies, it is recommended that a further exploration program should be undertaken.

- 1) All present underground working should be surveyed in detail and plotted on topographic map.
- 2) All underground working should be rehabilitated and mined material should be mucked out.
- 3) Some crosscuts should be driven from the upper adit and then underground diamond drilling should be carried out.

Respectfully submitted

Dated
5620 Clearwater Drive
Richmond, B.C.
October 6, 1977

.C. Singhai, P.Eng.

#### ESTIMATED COST OF PROGRAM

1.	Underground Working Survey		\$ 5,000.00
2.	Rehabilitation of Underground	Workings	3,000.00
3.	Underground Work and Drill Si 200' @ \$100.00 per foot	tes	20,000.00
4.	3,500 feet of Underground Dia	mond Drilling	
	@ \$8.00 per foot		28,000.00
5.	Assaying and Sampling		1,000.00
6.	Supervision and Engineering		5,000.00
		Total	\$62,000.00
	Contingencies 10%		6,200.00
		Net Total	\$ <u>68,200.00</u>

Dated October 6, 1977 G.C. Singhai, P.Eng.

#### CERTIFICATION

I, Gyan Chand Singhai of 562 Clearwater Drive, Richmond, B.C., do hereby certify that:

- 1. I am a member of the Association of Professional Engineers of British Columbia since 1969.
- 2. I am a Post Graduate in Applied Geology from the University of Saugor, Sagar, Madhya Pradesh, India, and have been practicing my profession since that time.
- 3. I was teaching in the University of Saugor, Sagar and Ravinshankar University, Raipur in India and practiced my profession in India, Canada and the West Indies.
- 4. This report is based as a result of a personal examination of the property made by me from April 3 to July 15, 1971 and November 6, 1975, and supplemented by the information contained in previous reports by Mr. Harvey H. Cohen, P.Eng., Mr. J.A. Mitchell, P.Eng., Geophysical Report of Dr. R.G. Agarwal, and the writer's previous report of June 14, 1971, and verbal information given by Mr. W. Chaput.
- 5. The map of the mine workings was prepared by myself.
- 6. I have no interest either directly or indirectly in the property described herein or in the securities of Coast Interior Venture Ltd. (N.P.L.).
- 7. This report may be used for the purpose of security commission if so desired.

Dated at 5620 Clearwater Drive Richmond, B.C. October 6, 1977

G.C. Singhai, M. Tech./P. Eng.

#### BIBLIOGRAPHY

- 1. Report on Chaput mineral claims by Harvey H. Cohen, P.Eng.
- Geological Report on Chaput mineral claims for F.K. Exploration Ltd. by J.A. Mitchell, P.Eng., 1970.
- 3. Report on Chaput Mines, Lumby, B.C. for Alberta Gypsum Limited by G.C. Singhai, M.Tech./P.Eng., June 14, 1971; April 26, 1972.
- 4. Report on Chaput Mines, Lumby, B.C. for Coast Interior Venture Ltd. (N.P.L.) by G.C. Singhai, M.Tech./P.Eng., May 11, 1977.
- 5. Geophysical Report on Chaput mineral claims for Alberta Gypsum by Dr. R.G. Agarwal, Ph.D., P.Eng., July, 1971.
- 6. Benefication of a base metal ore from Chaput Mine, Lumby, B.C.
  Report 1R-72-5 by Dr. D. Raicevic and R.W. Bruce, Mineral Processing
  Division, Department of Energy, Mines and Resources, Ottawa, dated
  December 1971.
- 7. Mineralogical investigation of base metal ore from the Chaput Mine, Lumby, B.C. for Alberta Gypsum Limited by D.R. Owens, August 12, 1971, Department of Energy, Mines and Resources, Mineral Sciences Division, Ottawa.

#### APPENDIX NO. 1

Area	Tons	In Dollars Per Ton	Tons x Value
A	3,768	\$ 17.76	\$ 66,919.68
В	888.6	31.82	28,275.25
С	3,375	14.10	47,587.50
D	3,731	3.83	14,289.73
Ē	1,295	6.50	8,417.50
TOTAL:	13,057.6	\$ 12.68	\$165,489.66
Tons x Average Valu	<u>le</u> = Average Value	per ton 165,489.6	= \$12.68 per ton
A	3,768	\$ 17.76	\$ 66,919.68

Average Value

A	3,768	\$ 17.76	\$ 66,919.68
В	888.6	31.82	28,275.25
c .	3,375	14.10	47,587.50
Tailings	1,500	26.00	39,000.00
Waste	300	33.64	. 10,029.00
•			<del></del>
TOTAL:	9,831.6	\$19.16	\$191,811.43

 $\frac{\text{Tons x Average Value}}{\text{Total Tons}} = \text{Average Value per ton} = \frac{191,811.43}{9,831.6} = $19.16 \text{ per ton}$ 

NOTE: The above values should be multiplied by 1.9 due to the increase of metal of value. Please refer to Page 9.

166 6 6 6 6 6 6 6 7 6 6 6

The following summation of ore snipments has been excreted from Smelter Settlements on lead ore submitted to the writer:

Date Received		Not Dry S	ಯಾ	Grass Value		Not Val 5
Sept. 6, 1968 Sept. 13, 1968 Sept. 21, 1968 Sept. 26, 1968 Oct. 5, 1968 Oct. 17, 1968 Oct. 17, 1968 Oct. 24, 1968 Nov. 14, 1965 Nov. 19, 1968 Dec. 4, 1968 Dec. 4, 1968 Dec. 10, 1968 Dec. 15, 1968 Dec. 15, 1969 Jan. 24, 1969 Jan. 24, 1969 Jan. 29, 1969 Jan. 29, 1969 Feb. 20, 1969 Feb. 20, 1969 Feb. 20, 1969 Mar. 1, 1969 Mar. 1, 1969 Mar. 1, 1969 May 14, 1969 April 10, 1969 April 10, 1969 April 29, 1969 May 31, 1969 June 17, 1969 July 5, 1969 Sept. 22, 1969		28.0645 12.9665 28.1240 15.3965 29.9665 26.2030 27.1355 26.2030 12.2500 18.5705 14.4110 30.6880 28.4375 30.8835 67.0035 59.8065 46.3490 26.9335 12.7995 29.9155 34.4990 1.4520 30.5210 25.6925 26.3410 57.3755 32.3245 50.3670 48.0820 50.5715		12,54.76 1,514.94 976.36 2,427.51 649.86 635.14 586.08 1,793.80 6,932.44 734.79 3,788.58 1,460.50 2,969.99 7,969.99 2,847.09 1,291.37 677.44 1,348.43 441.84 2,965.04 2,507.86 81.76 2,760.15 1,130.45 1,639.01 2,979.90 3,309.36 7,972.12 5,216.94 2,336.27 3,932.01	e	12,294.93 2,029.84 1,293.87 2,155.70 445.11 409.14 1,656.60 6,690.28 539.96 3,450.40 1,167.57 2,575.05 7,239.84 3,091.02 794.03 1,195.22 135.31 2,022.53 2,436.22 844.16 2,423.30 2,344.52 4,418.45 1,784.98 3,272.52
Total:	1	,106.5705			4	82,399.90

The following is a shipment of iron concentrates:

Dec. 12, 1969 53.7140 7,497.38 6,260.71

and the following is a shipment of lead concentrates:

Dec. 12, 1969 4.799 1,693.93 1,632.69

The total of the foregoing ore shipments is 1107 dry tons with a not dollar value of \$82,400 or \$72.44 per dry ton. The value per wet ton would be about 2% lower. The total of the concentrate shipments is not known as only one shipment, that of December 12, 1969, was attached.

#### APPENDIX IIB

The following summation of ore shipments has been extracted from Cominco Smelter settlements on Lead concentrate shipment as submitted to the writer:

Date of Received	Net Dry Tons	Gross Value	Net Value
October 29, 1976	19,325.0	\$13,073.09	\$11,926.51
September 4, 1976	26,208.0	28,589.43	27,109.97
	45,533.0	\$41,662.52	\$39,036.48

Net value of ore per ton = \$78.07

Total ore milled

= 500 tons

The total of the foregoing concentrate shipments is 45.533 dry tons with a net dollar value of \$39,036.48 or \$857.32 per dry ton or \$78.07 per dry ton of ore. The value per wet ton would be about 9.17% lower.



APPEDDIX - 111

### CHEMEX LABS LTD.

212 BROOKSBANK AVE. NORTH VANCOUVER, B.C. V7J 2C1 CANADA TELEPHONE: 985-0648 AREA CODE: TELEX: 043-52597

· ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYER\$

CERTIFICATE OF ASSAY

CERTIFICATE NO. 32792

21321

TO: Mr. Singhai

5620 Clearwater St.,

RECEIVED

INVOICE NO.

August 5, 1977

Richmond B.C.

**ANALYSED** 

ATTN:

August 12, 1977

SAMPLE	NO. FOOTAGE	% Copper	% Lead	% Zinc	oz/ton Silver	oz/ton Gold	WIDTH IN FE
133 134	123.0-125.5 131.0-133.5	0.03	0.02	0.03	0.24 0.01	0.005	2.5 2.5
135	157.0-159.5	<0.01	<0.01	≤0.01	0.10	<0.003	2.5
136 137	147.0-154.0	0.01 0.01	0.01 <0.01	<0.01 <0.01	0.01 0.16	0.003	7.0
138	159.0-164.5	0.05	1.05 <0.01	0.49	0.12	0.003	5.5
139 140	213.5-215.0	0.04 0.01	0.02	<0.01 0.01	0.06 0.04	0.020	1.5 1.0

DDH-77-1

Elevation of Coller Location

Dip of Hole -60°

Bearing N10W Total Depth 275' Date of Logging July 31/77 Logged By G.C.S.

Footage		Recovery	-			
From	To	<b>%</b>	Description			
0	13		Overburden (no core)			
13	120.0		Limestone: - very light gray, fine grained, biotite and amphiboles in interbeds of metasediments, abundance of biotite and minor chlorite 29 - 49'.  Broken core 36' - 45.3', (may be faulted) shear 50° to core axis, shear zone 66.0' - 67.0', 69' - 70', 72.0' - 73.5', 82' - 83', 87' - 88' serpentine and talc along shear zone. Shearing 103' - 115'.  Disseminated pyrite, pyrrhotite and specks of chalcopyrite at 13-0'. Stringers of pyrite along fractures at 87' - 88'. Quartz vein of 6" at 13-0'.			
120	121.5		Diorite Dyke: - gray fine grained, with feldspar, biotite, argite, slickensides along fractures, minor disseminated pyrite. Upper contact 40° to core axis and fractures 30° to core axis. Serpentine along fractures.			
1.5	130.5		Limestone: - as (13 - 120') slightly massive silicified, quartz vein 4" at 123.0' 5" at 125.0'.  Gouge material at 123.4' - 123.7'. Broken core 126' - 127'. Massive sulphides along fractures.  Pyrite, pyrrhotite and very minor chalcopyrite at 125.0'.			
0.5	134.0		Quartz vein: - slightly mineralized along fractures with pyrite and pyrrhotite at 131.0°, upper and lower contact 20° to core axis.			

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	~			•		_

Foota	ge	Recovery			
From	То	<b>%</b>	Description		
134	157		Limestone: - as 121.5' - 130.5', slightly silicified biotite, chlorite along fractures, brecciated core badly broken 135.0' - 138.0', 142.0' - 146.0', 148.0' - 157.0', minor disseminated pyrite.		
157	159		Quartz Vein: - mineralized by pyrite and pyrrhotite along fractures at 157' - 158' and stringer of 1/4" at 149.0'. Lower contact at 60'.		
159	267.5		Limestone: - white gray, brecciated at 187.5' - 189.5', 203' - 211'. Bedding 70° to core axis at 232'. Stringers of pyrite and pyrrhotite at 186.5', 200' 203', heavily disseminated pyrite 236' - 250'. Diorite Dyke 246.5' - 247.0'. Brecciated at 253' - 258'.		
267.5	275		Granodiorite: - light gray, fine grained, with altered feldspar, quartz, chlorite, hornblende, xenoliths of sediments. Upper contact 40° to core axis.		

End of Hole at 275.0'

G.C. Singhai
July 31, 1977

COAST	INTERIOR	VENTURE	LTD.	(N.P.L.)
	THEFT	1 1111 1 0100		

Chaput Mines Ltd., Lumby, B.C.

DDH-77-2		Elevat:	ion	Location	Dip of Hole
Bearing		Total De	pth	Date of Logging Aug.1/7	77 Logged by G.C.S.
Footage		Recove	ery	-	
From	То	<b>%</b>		Description	1
0	27		Overb	urden (using 23 - 24 boulde	ers of limestone.
27	230		Limes	tone: - light gray, very fi	ne grained with
			bioti	te and amphiboles in layers	of metasediments.
			Sligh	tly silicified, bedding $50^{\circ}$	to core axis at
			34'.	Minor disseminated pyrite	and pyrrhotite.
			Core	badly broken 27' - 44'. Sh	near zone 55' - 70.5'
			102.5	' - 115', 164.5' - 166.5',	172.5' - 178.0',
		brecc	iated zone 174.5' - 176.5',	bedding 35° to core	
			axis	at 123.0°.	
			Quart	z vein 59.4' - 60', 2" at 6	9°, 149.4 - 150.9°,
			upper	contact 60° to core axis,	lower contact 40°
			to co	re axis, 161.0' - 163.5', u	apper and lower
			conta	cts 50° to core axis. Pyri	te, pyrrhotite and
			minor	chalcopyrite at 69'. Thin	1/4" stringer of
			sulph	ides at 141.3'. Stringers	of sulphides along
			fract	ures in quartz vein (sulphi	des are pyrite,
			·pyrrh	otite, minor chalcopyrite a	nd sphalerite and
			galen	a, stringers of sulphides l	.59' - 163.2', massive
			sulph	ides 163.2' - 163.7', blebs	of pyrite at 189.51,
			disse	minated sulphides 201' - 20	3', stringer of 1/4"
			sulph	ides at 212°.	
			Broke	n core 190' - 195', 212' -	218', bedding 40°
				re axis at 203.5°. Quartz	
			with	stringers of sulphide, semi	massive sulphides
			214.5	' - 215.0', stringers of su	lphides at 228.0',

End of Hole at 230'

G.C. Singhai August 1, 1977

bedding 50° to core axis at 228.0'.

DDH-77-3 Elevation Coller Location Dip of Hole
Bearing Total Depth Date of Logging Aug.1/77 Logged by G.C.S.

Footage Recov		Recovery	
From	То	*	Description
0	8		Overburden (no core).
8	29.0		Limestone: - very light gray, fine grained, slightly silicified, disseminated pyrite along fracture with brom oxide, diorite dyke 25' - 26', shear 26.5' - 27.5', quartz vein of 4" with blebs of pyrrhotite at 27.6' - 28.0'.
29	49.5		Biotite Schist: - light gray, fine grained with biotite, hornblende and chlorite, slightly calcarious, foliation 30° to core axis at 32', disseminated pyrite.
49.5	52.2		Diorite Dyke: - greenish gray, fine grained with chlorite, hornblende, biotite, upper contact irregular.
52.2	54.7		Quartz Vein: - stringers of pyrite and pyrrhotite along fractures.
54.7	61.3		Diorite Dyke: - as 49.5' - 52.5' upper contact perpendicular to core axis, lower contact gradational.
61.3	129.7		Limestone: - very light gray, fine grained, bedding 80° to core axis at 104', shear zone 78' - 79', 113.0' - 114.0', 118' - 123.0', pyrite along fractures at 80.0' - 80.6'. Quartz vein of 7" at 91', 93' - 94', upper contact 50° to core axis.

Footage From	To	Recovery	Description
129.7	134.0	_	Diorite Dyke: - gray, fine grained, amphibole feldspars, chlorite, upper contact $70^{\circ}$ to core axis, lower contact $70^{\circ}$ to core axis, limestone $131.5' - 131.9'$
134	138.0		Limestone: - as 61.3' - 129.7', bedding 70° to core axis at 135'.
138.0	154.0		Metasediments: - light brown, fine grained with biotite, hornblende and inclusions of limestone 145' - 147', stringers and blebs of pyrite and pyrrhotite along fractures 146.5' - 154.5', upper contact not defined, lower contact
154.0 158.e	158.0 <del>176.5</del> 176.5		perpendicular to core axis. Core broken.  Dittile Nower Metasediments: - light brownish gray, fine grained, with biotite, amphiboles, silicified, bedding 70° to core axis at 163.0'. Interbeds
176.5	198.5		of limestone.  Limestone: - as 134' - 138'. Pyrrhotite and pyrite along fractures at 177' over 3", brecciated at 182.0' - 188', 193' - 198.5',
198.5	203.0	·	bedding 60° to core axis at 177.0'.  Diorite Dykes: - Dark gray, fine grained, amphibole, biotite, chlorite, feldspar, upper contact 45° to core axis and lower contact 40°
203	220.7		to core axis.  Limestone: - as 176.5' - 198.5', badly broken  core 203' - 207', 216' - 219', brecciated 208' -  209', 216' - 219.0', occasionally pyrite
220.7	226.0		stringers.  Diorite Dyke: as 198.5' - 203.0', badly broken core and altered, upper contact 40° to core axis, lower contact unidentified.

Footage		Recovery			
From To X		<b>x</b>	Description		
226	383		Limestone: - as 203' - 220.7', sheared and brecciated 239.5' - 298', badly sheared zone 239.5' - 246', 256' - 283'. Could be fault zone and heavy pyritization, serpentinezation along shear zone, bedding 60° to core axis at 353'. Interbeds of graphitic argillite 327' - 328', 328.5' - 332.0', 333' - 334', 327' - 328', 328.5' - 332,0', 333' - 334', 337' - 338', 344.5' - 345.3' with heavy graphite.		
383	442		Argillite: - light gray to dark gray, very fine grained, with interbeds of limestone, occasionally graphitic. Bedding 70° to core axis at 393' and 70° at 427'. Core badly broken, heavy graphite along fractures.		

End of Hole at 442'

G.C. Singhai August 1, 1977

COAST INTERIOR VENTURE LTD. (N.P.L.)		Chaput Mines Ltd., Lumby, B.C.
DDH-77-5	Elevation	Location
Dip of Hole	Bearing	Total Depth
Logged by		Date of Logging

Footage		Recovery	
From	То	Z.	Description
0	18		Overburden (no core)
18	19		Boulders of limestone
19	41		Metasediments: - light brownish grey, fine grain, biotite, amphibole, slightly calcerious. Badly broken core throughout the section. Occasionally pyrite along fractures.
41	103		Limestone: - whitish, light-gray, fine grained.  Bedding 80° to core axis at 37'. Core badly broken and shear zone 48' - 50'. Heavily disseminated and along fractures pyrite and pyrrhotite throughout section. Brecciated 96.5 - 97.5.

End of Hole at 103'

G.C. Singhai

August 1, 1977

COACT	INTERIOR	VENTIRE	TTD	(N D I )	
CORSI	INTERIOR	VENTURE	LID.	(NoFalla)	

Chaput Mines Ltd., Lumby, B.C.

DDH-77-6

Elevation

Location

Dip of Hole

Bearing Total depth 320'

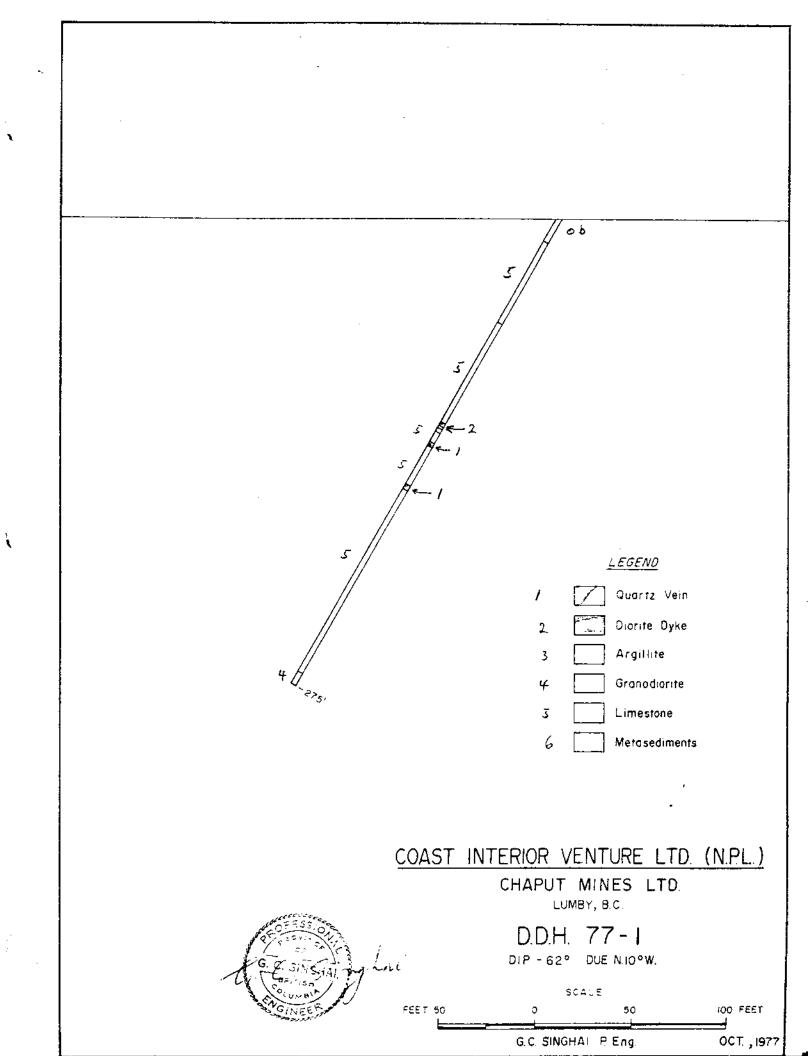
Date of Logging Aug.2/77

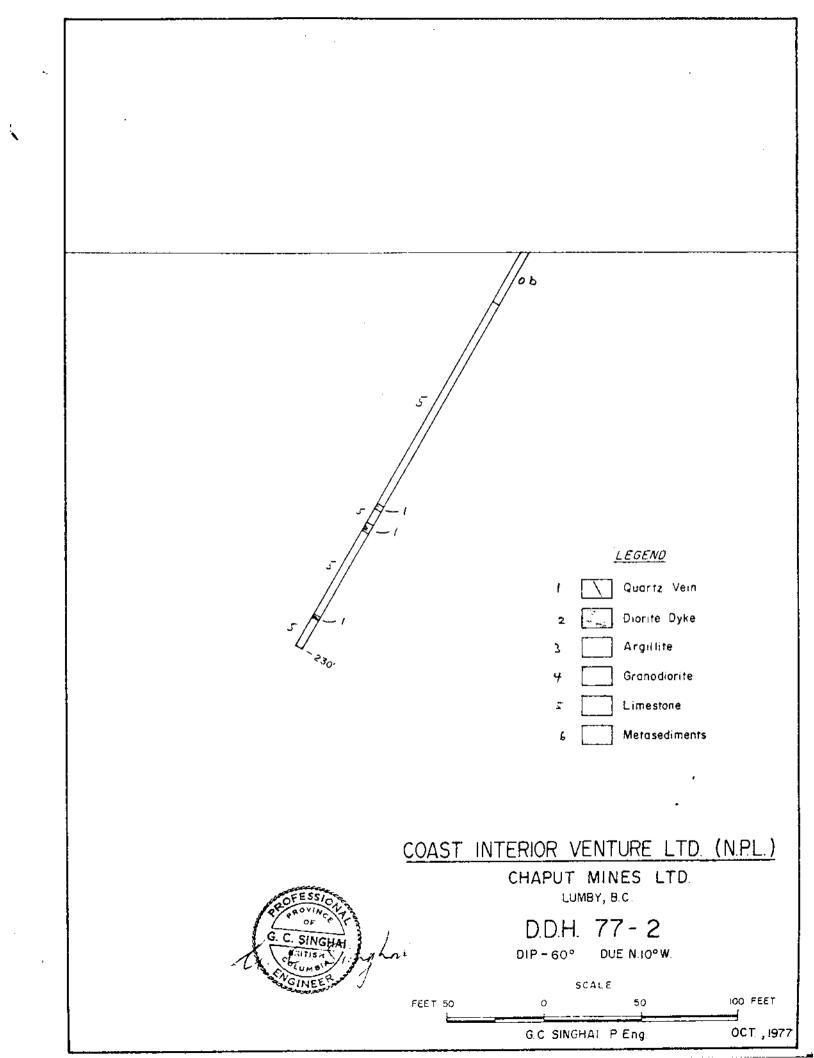
Logged by G.C.S.

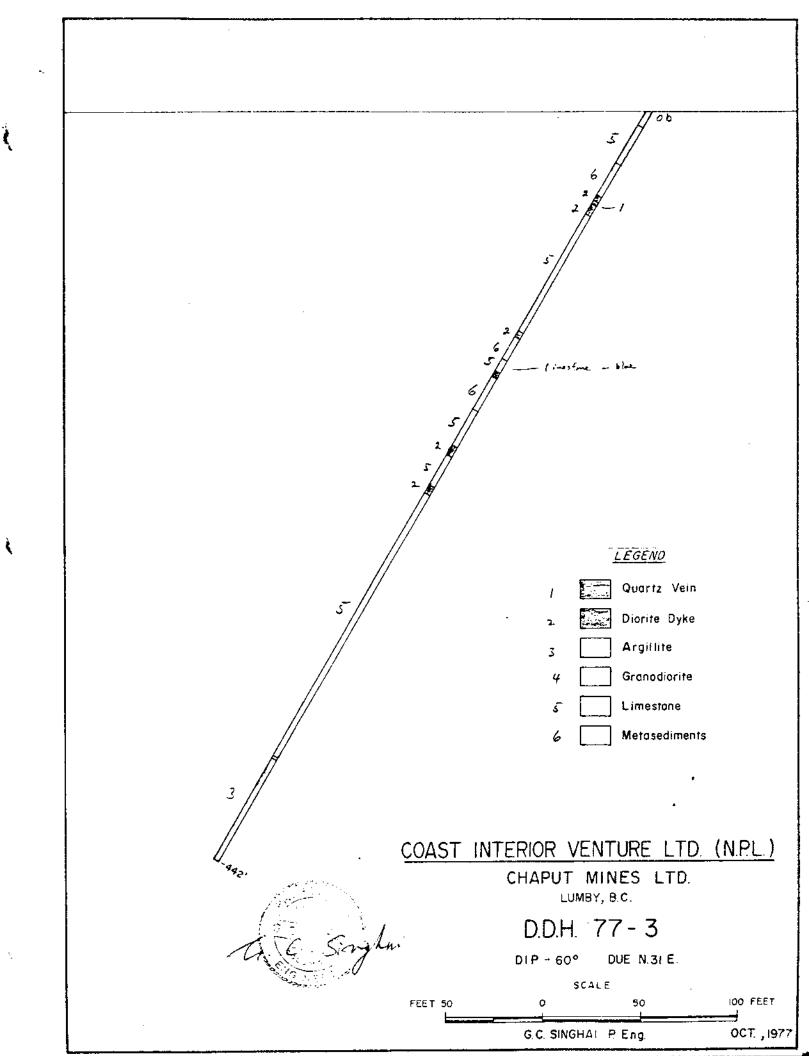
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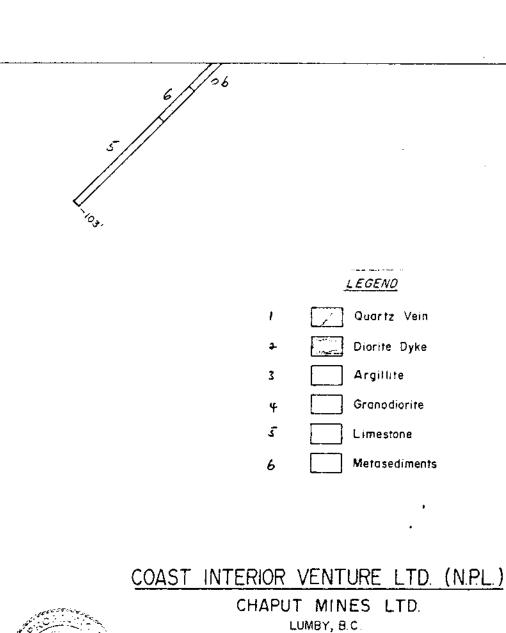
End of Hole at 320'

G.C. Singhai August 2, 1977









D.D.H. 77-5

SCALE

G.C. SINGHAL P. Eng.

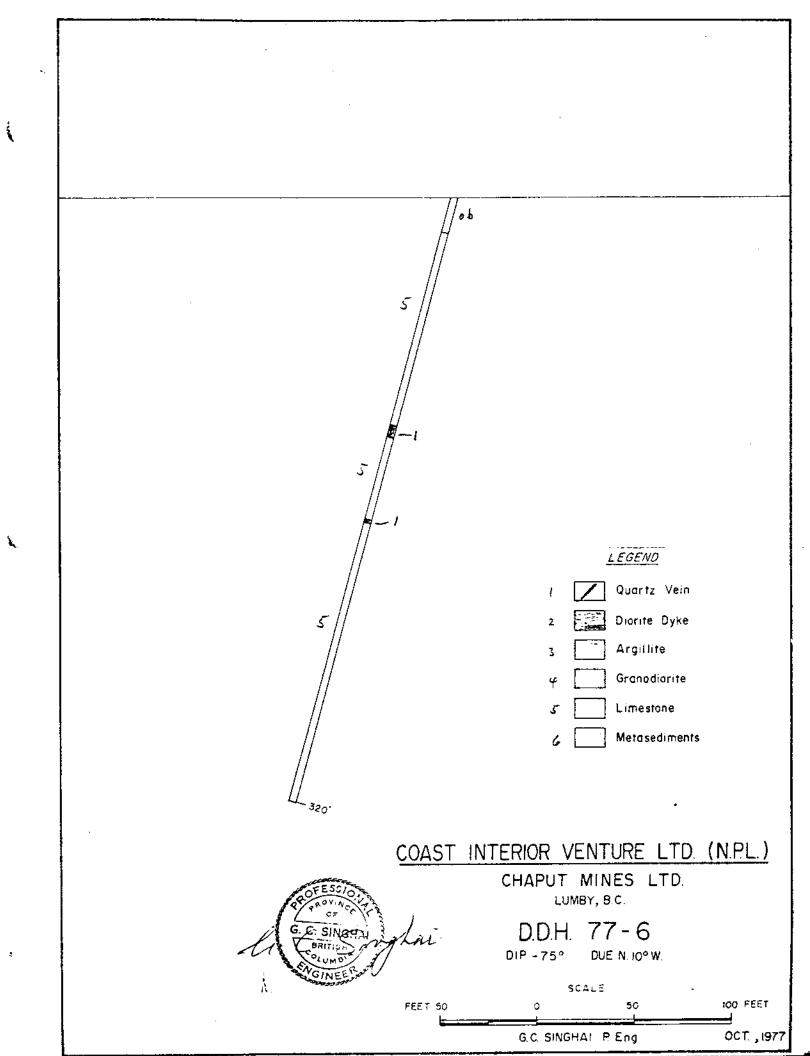
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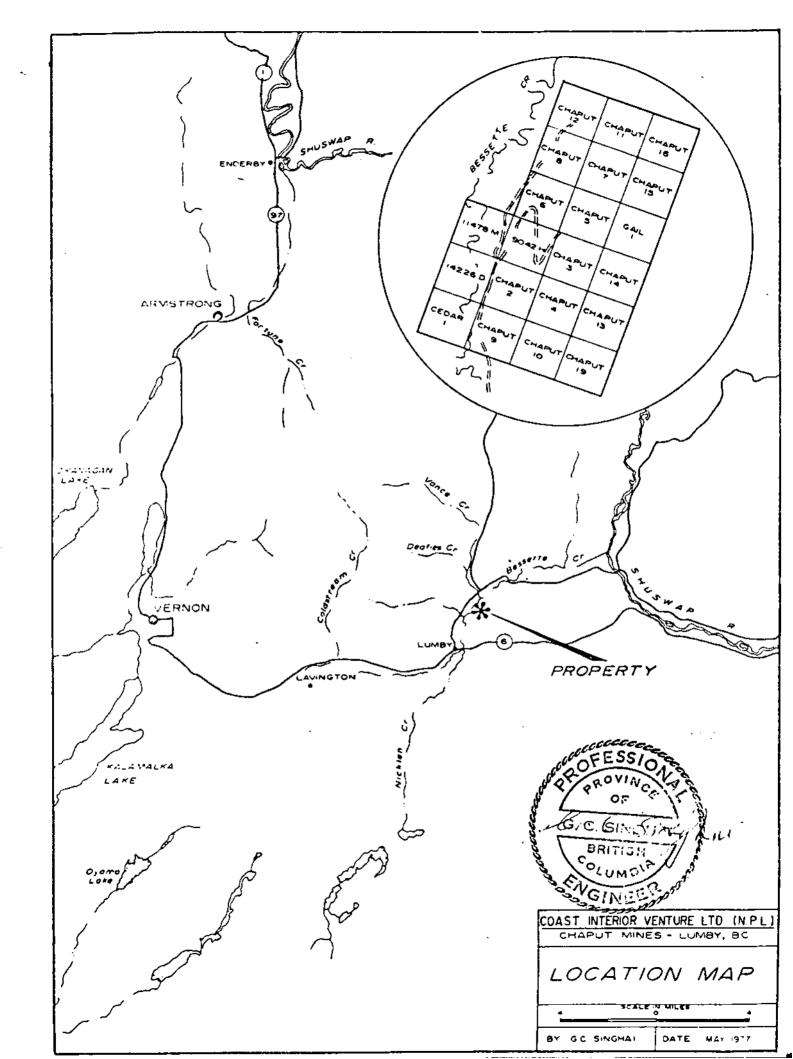
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OCT., 1977

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# CHAPUT OFFICES: 078C SHUSWAP AVEL

P.O. BOX 245, LUMBY, B.C. V0E 2G0 • PHONE 547-2521

MAILING ADDRES	c/o Mr. Wm. Logue Secs: (Box 245. Tamby, B. CO	2801	- 18	th Ave	
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P.O. BOX 245, LUMBY, B.C. VOE 2G0 . PHONE 547-2521

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#### STATEMENT / ÉTAT DE COMPTE

Aug. 2319 77

M	COAST INTERIOR VENTURES
	c/o Mr. Wm. Logue Sec.
	2801 - 18th Ave., Vernon, B.C.
In A	Account With
	Chaput Sand & Gravel

Terms/Conditions Box 245, Lumby, B.C.

_	Contract Drill	_	
	helper - Flat Rate		2000.00
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	Ja.		
	Total		2000.00
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## CHAPUT OFFICES: O78C SHUSWAP AVE.

P.O. BOX 245, LUMBY, B.C. VOE 2GO . PHONE 547-2521

MAILING ADDRESS	Box 245, Lumby, B	.c.				* 1
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# CHAPUT CARAVEL SAND & GRAVEL

P.O. BOX 245, LUMBY, B.C. V0E 2G0 . PHONE 547-2521

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20	MINE	TUC	OFF 207	ICES: 8C SHUSWAP AVE.
	Chr.	SAND	& GA	RAVEL

P.O. BOX 245, LUMBY, B.C. VOE 2G0 - RHONE 547-2521 MAILING ADDRESS: PROV. TAX# Eq. Exempt DESCRIPTION PRICE PER YDS/ HRS. 39.25 159. .00 7% Prov. Sales Tax: 197. DELIVERED BY: 14 RECEIVED BY: . TERMS: NET 30 DAYS, INTEREST CHARGED ON OVERDUE ACCOUNTS.



## CHAPUT CHAPUT CHAPAVEL

P.O. BOX 245, LUMBY, B.C. VOE 2GO . PHONE 547-2521

V. TAX # 30 . 23	DESCRIPTION	PRICE	PER	AMOUN	T
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P.O. BOX 245, LUMBY, B.C. V0E 2G0 . PHONE,547-2521 MAILING ADDRESS TELEPHONE: PROV. TAX # PRICE PER YDS/ HRS. 39.25 7% Prov. Sales Tax: RECEIVED BY:

#### ARDEN MINING SERVICES LIMITED

BOX 250, WELLS, B.C.

In Account with:

. Aug.3, 1977

COAST INTERICR VENTURES LTD.; BOX 245, LUNBY, B.C.

DDH	77	-	1	-	275 '
DDH	77	_	2	_	2301
DDH	77	-	3	-	4421
DDH	77	-	5	-	1031
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Ва	ıla	nce	due	J	•	\$	6385.00	
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W. Magnussen .

CK#013

### ARDEN MINING SERVICES LIMITED BOX 250, WELLS, B.C.

Sept. 2/77.

In Account with:

COAST INTERIOR VENTURES LTD., BOX 245, LUMBY, B.C.

700' Diamond Drilling - A Q @ \$8.50 = \$5950.00

W. Magnussen

J.

Mr. Wallace Chaput, President, Coast Interior Venture Ltd, Lumby, B. C.

From:

Mr. G. C. Singhai, P. Eng., 5620 Clearwater Brive, Richmond, B.C. V7C - 3B5.

Dear Sir,

Enclosed herewith is a bill for the report on Chaput Mines , Lumby

B.C.

Report and Engineering Typing and Printing Drafting and Coping Telephones \$ 900.00 \$ 118.75 \$ 89.50 \$ 31.90

Total

\$1140.15

Thank you.

G. C. Singhai

C. C. Singhai

Jan by chest now 18

TO:

Mr. Wellace Chaput,
President,
Coast Interior Venture Itd,
Lumby, B. C.

From:

Mr. G. C. Singhai, P.Eng., 5623 Clearwater Drive, Richmond, B. C. V7C-335.

Dear Sir,

Enclosed herewith is a bill for the visit and work

done on the property of Chaput Mines, Lumby, B. C.

3 days (2 June - 4 June, 1977)	
\$ \$ 175.00 per day	\$ 525.00
Car (733 miles 3 15t permile)	\$ 109.95
Gas	\$ 36.40
Hotels	\$ _37.28
Meals (for one person)	\$ 25.45
Total	\$ 734.08

Thank you

G. C. Singhai.

CK 005

TO:

Mr. Wallace Chaput,
President,
Coast Interior Venture Ltd,
Lumby, 3. C.

#### From:

Mr. G. C. Ginghal, P. Thr.; 5620 Clearwater Drive, Richmond, P. C. V7C-385.

Dear Sir,

Enclosed herewith is a bill for the visit and work done on the property of Chaput Mines, Lumby, B.C.

5 days (July 30 - lugust 3, 1977.) @ \$ 175.00 per day.	\$	875.00	
Topographic map Hotel meals Gas Car(460 miles 5 20¢ per mile) Printing of maps Telephones Assay	C)- C)- 40- 40- 40- 40- 40- 40-	1955.00 87.20 32.55 24.66 —92.00 35.80 10.28 208.50	
Total		3321.01 3320.99	-

Thank you.

a. C. Singhai

CK # 018

3255 2466 0.300 236.41

G. C. Singhai.



