

*Nicola Valley Historical*  
**QUARTERLY**

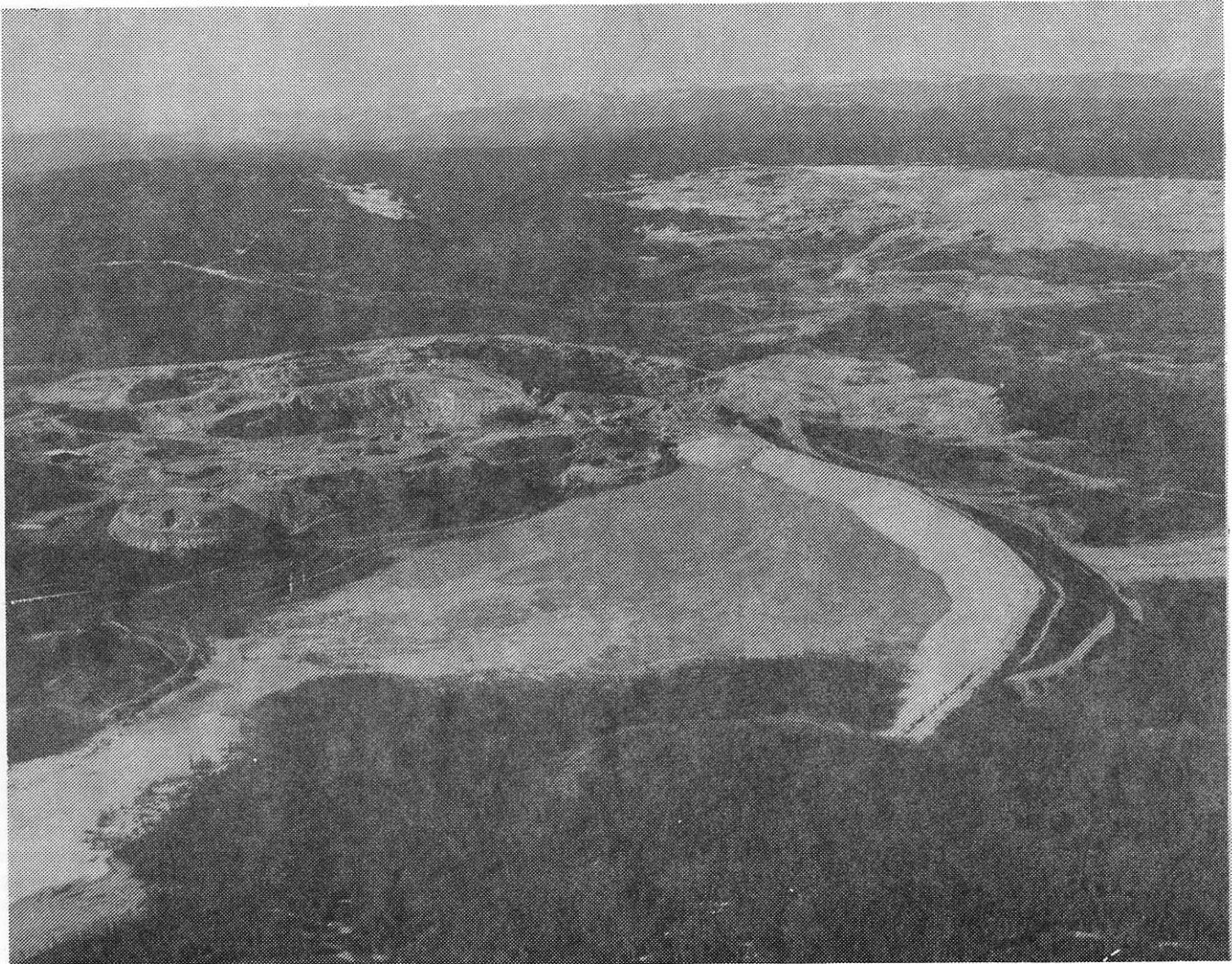
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Vol. 3 - No. 2 and 3

Merritt, B.C.

July, 1980

*Highland Valley Copper*



*View of the Highland Valley from the Northeast. Bethlehem open pit mine in the foreground with the beginnings of the Highmont Mine clearing upper left; Lornex to the right of centre and the Valley Copper clearings upper right. The snow-capped peaks of the Coast Range in the background. (Ministry of Energy, Mines, and Petroleum Resources photo).*

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## Nicola Valley Historical **QUARTERLY**

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Katharine Howes  
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Harold Sandstrom

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Meeting Place: Museum Archives Building,  
1813 Voght Street,  
Merritt, B.C.  
Meeting Times: Executive, 7:30 1st Tuesday  
Regular, 7:30 3rd Tuesday

## Financial Statement

January 1, 1980 to May 30, 1980

### CURRENT ACCOUNT

Carried Forward 1980-01-01	\$ 747.98
Receipts	1710.20
Disbursements	2558.00
Transfer from Plan 24	1000.00
Balance forward 1980-05-30	\$ 900.18

### SAVINGS ACCOUNT

Balance in Plan 24, 1980-01-01	\$3164.92
Interest	77.50
Transfer to C/A	1000.00
Balance 1980-05-30	\$2242.42

## NEXT ISSUE OF THE QUARTERLY IS YOURS!

The next Quarterly, due to be printed October 1, will be devoted to, and sponsored by the membership. You can contribute in many ways: Write a letter full of memories of the Nicola Valley - we'll print it. Send us some old photos - we'll print them too. Send a membership to someone new - that will help pay for the printing. Research and write an article on an appropriate subject dear to your heart - you'll get a 'by' line. Make this the most interesting issue yet! Deadline for items is September 1, 1980.

## The Plucky Prospector

By A. E. James

All day he searched the barren land  
For just a glint of gold.  
And dreamt of untold riches  
He was sure he'd like to hold.

Like the many fruitless streams  
the years pass by.  
Aging lines run across his face  
Like wind clouds of the sky.

With failing health the determined miner  
Searches on each spring  
Content to live  
With what tomorrow might bring.

## Further on Doctors

By Pat Lean

Dr. Silk was apparently forgotten in the January issue. This doctor will be dealt with when we look at the Shulus Mission Hospital.

One person missed was Dr. Izatt. The following in the paragraph which disappeared somewhere between the typesetter and the printer.

### Izatt, Dr. Jean Adele

Dr. Jean Izatt set up her practice in her home on "the bench" for a few months in 1964. She is now practising in Sidney, Vancouver Island. A 1955 graduate of U.B.C., she was registered in 1957.

## President's Report

By Katharine Howes

As the Quarterly is prepared for publication, odds and ends of news and ideas surface and might be forgotten if it were not for the safe repository of my report. I get all the leftovers that no one knows what to do with.

For example, where else could we say au revoir to Wilma Thomas, our treasurer for two years, and welcome Marg Palagain in her place? I mean, it's not earthshaking historical news, but it's damn important to the running of the operation that the treasurer's position is filled! Where else could we say hello to Harold Sandstrom, a newcomer from Victoria, who brought us inspiration and erudite scholarship when we needed it most? Where else can you read about the continuing saga of "The New Building?" Speaking of that, the Town of Merritt has authorized Norm Metz, the architect, to proceed with working drawings for the Museum/Archives/Senior Citizens' Recreation Complex. It sounds simple now, but it took Building Committee Chairperson Pete Malach many thoughtful hours of revision to make the requirements equal to the money available. Thanks, Pete.

We again have a youth employment grant which has enabled us to hire summer workers to carry on organizing and accessioning our material.

I am happy to report that our barrage of letters to various heads of departments supporting the preservation of the Cascade Wilderness (next to Manning Park) proposed by the Okanagan Similkameen Parks Society has helped bear fruit. We have received word that a moratorium has been declared on logging and a mineral reserve proclaimed to prevent claim staking in the study area.

Reading over the rough copy of the Quarterly articles is a pleasant job for me. I developed a new respect for prospectors and miners. In fact, mining as a whole, during the research and reading of our material. It seemed that a prospector had to be in the right place at the right time to make it. There were many who were not so fortunate. Some of these men were visionaries and dreamers with a deep-rooted belief in the treasures of the earth. Others, with a greater respect for the realities of life, sought elsewhere.

P.S. We are presently negotiating the reinstatement of our tax deductible number with Ottawa. There was a mix-up in 1978's paperwork which was caught in late 1979. Interim receipts are being issued.

# Membership List

# Excerpt from the Letters of

# Jessie McQueen

## ABBREVIATIONS

<b>CODE</b>	<b>TYPE</b>
S	Students
SC	Senior Citizens
AS	Active Single
AF	Active Family
HON	Honorary
CON	Contributing
SUS	Sustaining
COM	Commercial
LI	Life (Installment)
P	Patron
B	Benefactor
FL	Family Life (Special)
LP	Life (Paid)

NUMBER	NAME	TYPE
2	MACKENZIE, Richard	AS
5	DRAKE, Joanne	AF
9	GILMOUR, Peggy	AF
23	CONLON, Pat	AF
25	PATERSON, Evelyn	AF
29	BANN, John	AS
51	OHATA, Mickey	AF
52	OHATA, Elaine	AF
53	OHATA, Michael	AF
61	MOFFATT, Reg	SC
66	McDOUGALL, Allan	CON
67	McDOUGALL, Audrie	CON
68	GRIMSHIRE, Barbara	AS
85	DRAKE, John	AF
86	DRAKE, Stephen	AF
87	DRAKE, Michael	AF
88	CONLON, Jean	AF
89	CONLON, Margaret	AF
90	SOMMERVILLE, Angus	AF
105	GILMOUR, Allan	AF
106	GILMOUR, Bruce	AF
107	GILMOUR, Ross	AF
108	GILMOUR, Alison	AF
109	GILMOUR, Daphne	AF
110	GILMOUR, Elspeth	AF
113	JACK, R. Al	AS
114	ELSAESSER, Oswald	AF
115	ELSAESSER, Hilde	AF
117	ELSAESSER, Iris	AF
118	ELSAESSER, Martin	AF
119	ELSAESSER, Fred	AF
120	ELSAESSER, Desiree	AF
121	ELSAESSER, Peter	AF
123	ARMSTRONG, George	AS
127	J.S. CRAWFORD Insurance Agencies (1972) Ltd.	SUS
129	SPENCER, Lareina Bernyce	AS
152	PETRIE, Fred	SC
153	PETRIE, Evelyn C.	SC
155	MOFFATT, Gladys	SC
166	GERARD, Simon	SP.L
167	GERARD, Ellen	SP.L
170	GILCHRIST, Ev.	SC
178	BAILEY, Vivian	SC
179	DICKIE, Alan S.	LP
180	PATERSON, Richard	AF
181	PATERSON, Teri-Lyn	AF
182	PATERSON, Tamra-Lee	AF
183	RUSTAND, Beverly	AS
193	GRAHAM, Charlie	AS
196	INGLEBY, Gerald	AF
197	INGLEBY, Marlene	AF
198	INGLEBY, Jerri-Lee	AF
199	INGLEBY, Arthur	AF
206	SCHINDLER, Charlotte	AS
213	SCHOOL DISTRICT NO. 31	COM
218	McSTAY, Rosina	AS
256	BAKKE, Hazel Thelma	AS
287	YOUNG, Shirley	AS
292	SANFORD, Gerald R.	AF
293	SANFORD, Jill	AF
294	SANFORD, Tim	AF
295	SANFORD, Tracy	AF
311	ROBEY, Ronald	SC
312	MORRISSEY, Kerry	LP
322	BALCO INDUSTRIES LIMITED	LP
327	FUKUSHIMA, Karen	S
333	ROWLES, Sid W.	AS
334	WARREN, Margaret	AS
335	ROBEY, Ellen	SC
342	N.V. & DIST. CREDIT UNION	CON
348	ABBEY, Dr. Norman	AF
349	ABBEY, Beatrice	AF
350	ABBEY, Mark	AF
351	ABBEY, Robert	AF
352	ABBEY, Heather	AF
359	SHAW, Lorna May	AS
360	McDONAGH, Tom	AF
361	McDONAGH, Randine	AF
362	McDONAGH, Cameron	AF
365	BIERMAN, Reva	AS
369	CRIPPS, Mary	AS
372	GABOR, Emma A.	AS
424	McCRACKEN, Dorothy	AS
405	Welsh, Grover	AS
425	CHUTTER, Doreen Virginia	AF

## Jessie goes to summer school

Lower Nicola, June 25, 1888 . . . This will be a busy week for Nan and myself -monthly and yearly reports to be made out -she has her exam on Thursday and will attend mine on Friday afternoon, then I have to "do up" my white garments, finish up some sewing I have on hand and have my trunk all packed by Saturday night so as to be ready to start Monday morning . . .

Victoria, July 10, 1888 . . . I'm in the middle of exams, but feel as if I should write, if only to say how do you do ma'am? We can have no idea as to how we are getting along, but we keep up our courage and hope for the best. An old Normal school friend of Jessie's (Olding), Miss Jennings, always walks back and forth with us, and we three never give each other a chance to get blue over possible results . . .

We had one drive out since coming, and I really do not think I even saw a more beautiful place. Such quantities of flowers, and trees, ivy and honeysuckle I never saw. And out around Beacon Hill, where we drove (Mrs. Watkins, Jessie and I), we have a full view of the waters of the Sound, and the snowcapped peaks of the Olympian range, beyond. They *tell* me that those are the names, my geography is sadly mixed up, when it comes to the *application* . . . I never fell in love with a city before, but I *am* wildly in love with Victoria, whether as a natural result of my three months seclusion in Nicola, or not, I am not able to say . . .

We are enjoying it all as much as it is possible to do while exams, are going on. They only give us two, or at the most three subjects a day, and plenty of time to each; so if we don't cover ourselves with glory, it's because we *can't*. We meet in the Legislative Hall, a low, old fashioned, brick building with the Speaker's chair canopied with green and gold. The Inspector - Wilson - is bald as a turnip, and it affords him unlimited pleasure to get up in that chair, and show off his bald head on that background. I don't like him very much, but the other examiners - Rev. D. Fraser and Supat. Pope, are as nice as can be.

Victoria, July 12, 1888 . . . I like to peek in at the Chinese Laundries, they are so spry about their work. We pass them every day, on our way to the Legislative Hall. It's quite a distance over there, we have to go along one street and turn a corner, along another and another corner, and finally cross James Bay Bridge. The grounds about the building are nicely laid out, and seem to be kept in order by the prisoners from the jail. They have been working around there every day yet, and a sentinel marches up and down before them with his rifle under his arm. Poor wretches, I never pass them without pitying them, and contrasting our condition.

July 12th. Had a pretty hard old day's work today, Mensuration for 2½ hours, in the morning and botany and Bookkeeping this afternoon - didn't get out until 5 o'clock. We are so glad to think that we will be free niggers by Monday.

426	CHUTTER, Paul W.	AF
435	KNOWLTON, Willson E.	AS
441	ENRIGHT, Greg	AS
467	KING, Fred	CON
480	LARSON, Clara	AS
487	SHARPE, Jean	SC
493	PARKER, J. William	SC
504	CRIPPS, Lorne	AS
509	COLLETT, Harry	SC
516	WILSON, Ruby	AS
517	LOYST, Charles	AF
518	LOYST, Merle	AF
519	LOYST, Derek	AF
520	LOYST, Arlene	AF
526	RASPBERRY, Mary Ann	AS
537	FRENCH, Selma E.	AS
545	CHANCE, Brian	SC
546	CRAGG, R. B. A.	SC
552	McGORAN, Fred	SC
556	VANCOUVER PUBLIC LIBRARIES	AS
561	RAPANOS, Joan	AS
562	REID, Wm. Hugh	AS
563	BAIN, Mitchell	AS
564	WALKER, Margaret	AS
565	KOLLER, Mr. W.	AS
619	DODGE, Mrs. Dorothy	AS
620	GRANT, Jack	AF
621	GRANT, Wilma	AF
622	GRANT, John	AF
623	GRANT, Brian	AF
624	GRANT, Elizabeth	AF
625	SCOTT, Rose	AS
626	WRIGHT, Paul	AF
627	WRIGHT, Trudy	AF
628	LINDLEY, Roxanne	S
629	MANNING, Wm. George	SC
630	MITCHELL, Mrs. M.	SC
631	WILLIAMSON, Florence G.	SC
632	PELLS, Frank	AS
633	FAIRSERVICE, Mrs. Carrie	SC
634	LOCKHART, Mildred	AS
635	CURLOTT, Patricia	AS
636	JIMMIE, Mandy	AS
637	CLARK, J. A.	AS
638	MANSUS, John	SC
639	DALY, Neil	CON
640	DZACKODNIK, A.	AS
641	AJTKEN, George N.	SC
642	MERRITT, Mrs. Sylvia	SC
643	BURRIS, Dr. D. Stewart	AS
644	EWART, Mrs. Alex	AS
645	MOYES, Mrs. Alex	CON
646	MOYES, Ken	CON
647	MARRIOTT, Anne	AS
649	SANDSTROM, Harold	AS
650	LORNTZSEN, Egil H.	Patron
651	PROVINCIAL ARCHIVES	AS

## Membership?

Some confusion arose concerning renewed memberships solicited by the white form which we sent out in April. The form was sent in lieu of an April Quarterly and was just a reminder to renew if you had not already done so. If your name did not appear in the January (Doctor's) issue or is not in this one, you have not renewed. Any renewals received after June 11 (Quarterly deadline), will appear in the October issue. Please renew by September 15 in order to receive the October Quarterly.

## LETTERS TO THE EDITOR

Trail, B.C.  
March 8, 1980

Do you have a question to ask, an interesting historical anecdote to relate, a comment on or criticism of the Quarterly? Let's hear from you.



Dear Editor:

Please send me a copy of your January, 1980 issue on Medical Doctors in the Nicola Valley. A few of our local doctors are interested in the information you had on Dr. C. S. Williams in that issue, as he was largely responsible for the C. S. Williams Clinic here.

Thank you.

Mrs. Caroline (Collett) Pound

Okanagan Falls, B.C.

Nicola Valley Archives

Dear Sir:

. . . I found the enclosed photograph in one of Grannie's old albums. It is a family photo of Dr. Sutton, his wife and children. I was told by either my father or grandmother that the Sutton family was the first family to come to Nicola - before A. E. Howse brought his family in. I also remember Mother telling me about Chrissie Sutton - the boy. Apparently, he was sent off to a private school and died because of a severe fright there - something to do with "initiating a new boy" by scaring him. Perhaps you might follow that if you like. It is a vague story for me to relate and I have never bothered to ask anyone else about it, but Mother did tell me that little bit. Perhaps Betty Munro in Vancouver may know about it. Just a thought. I have no other information on Dr. Sutton and his family, but perhaps you have gleaned something along the way.

Kindest regards,  
Mollie Broderick.

## BOOK REVIEW

By Katharine Howes

### EXILE IN THE WILDERNESS

By Jean Murray Cole

Burns and MacEachern Limited, 1979. pp. 268, \$14.95

Those of us who now live in British Columbia hardly consider our home a place of exile. One hundred and fifty years ago, this land west of the Rockies was indeed a land of exile to Chief Factor Archibald McDonald. A well-educated man of 22, he was chosen by Lord Selkirk in 1811-12 to recruit fit young men and women for the Red River Settlement.

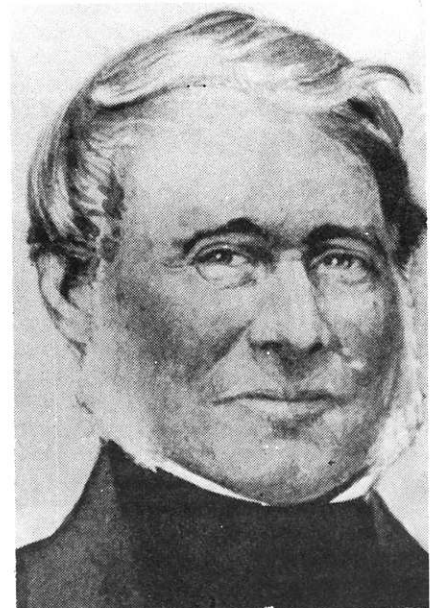
Cole narrates the travails of the unfortunate settlers in an understated fashion which in fact emphasizes the drama of their plight. In the middle of the action, she places McDonald dealing with the hostility of the Nor Westers, the ignorance of the settlers and the unpredictability of the Natives. His position placed him in exile socially.

Later, as a Chief Factor for the Hudson's Bay Company, he served in the geographically isolated posts of Fort Kamloops, Colvile, and Langley.

Cole shows McDonald to be a sensitive, warm-hearted family man as well as an extremely able administrator who was often called upon to straighten out problems left by his predecessors. He was far ahead of his time in that he saw the potential for fishing and lumbering industries which would flourish after the demise of the fur trade.

Two details make this book an appropriate choice for the Quarterly. One is that McDonald is credited with drawing the first map of the Nicola Valley. The second is that he was involved with finding the first reported minerals of any note in British Columbia. (The site eventually became Bluebell Mine at Riondel.)

To read this book is to become intimately acquainted with the life of a hitherto little known hero of early B.C. history. Highly recommended.



## Sermons In Stone

### (Part III)

By Bob Hainstock

## UP THE CREEK, WITHOUT AN ORE

The earth is very, very old indeed. In fact, the oldest rocks, found in areas of Greenland, date back 3.8 billion years. This is an immense period of time. However, the geologist must think in terms that seem to us immeasurably great. It requires a great deal of time to complete geological processes and cycles, such as the lifting up of mountain ranges and the slow erosion of these to form flat plains.

Our earth is made of a host of chemical elements, of which the most abundant, in order, are oxygen, silicon, aluminum, iron and calcium. A few of the elements, such as silver, gold and copper, occur as pure elements. Most of the others have joined with other elements to form the various rocks and minerals that make up our earth.

Many people confuse the terms rock and mineral and they use them interchangeably. They are, however, not the same things. A mineral is a naturally occurring inorganic chemical material and as such will have definite physical and chemical characteristics. A rock, on the other hand, is simply a mixture of various minerals.

Most minerals, like rocks, are valueless. However, if minerals occur in concentrations great enough that a company can mine them and make a profit, and the key word here is *profit*, the minerals become an ore-body. If no profit can be made, the mineral is not an ore. It is simply an accumulation of minerals.

Where and how do minerals form? Greek philosophers considered the ultimate origin of minerals, and indeed of all things, to be water or fire as these were the primordial elements. It is interesting that even today we combine the ideas of the early Greeks and recognize that fluids under high temperatures are responsible for the formation of many mineral deposits. These deposits we refer to as "hydrothermal deposits".

We now know that minerals, representing crystallized solids, may be formed from each of the other states of matter. They can be produced from liquids and gases. Probably of most importance is the formation of minerals from the liquid phase; from the freezing of molten rock material, from the evaporation and precipitation of mineral-bearing waters, and from hydrothermal activities around hot springs.

By far the greatest proportions of the minerals found in the earth's crust were formed during the solidification of molten rock or magmas. Temperatures within the earth are very hot and rock is kept in a super-heated but solid state by tremendous pressure. When any weakness or stress develops in the earth's crust, the release of pressure will cause the super-heated rock to become fluid and move towards the earth's surface where it may emerge on the surface as lava. The molten material from the interior might also force itself or intrude into any cracks or other points of weakness. These tongues of molten rock, which shoot out in many directions, may melt or alter the surrounding rock. Eventually the whole mass cools.

It is this cooling that interests us most, for that is when the minerals, some of which are valuable, are formed. Fortunately, most mineral constituents of molten rock crystallize at different temperatures and so tend to concentrate during the cooling process. It is these concentrations that form many of our ore bodies.

Metal bearing solutions of many kinds accompany the rise of magmas. As the molten rock cools and becomes solid, large quantities of liquid and gas are given off, charged with minerals leaving the igneous rock behind them, they make their way slowly to the surface, forming mineral deposits wherever conditions are favourable. During the long distance migration of the solutions, ore deposits of gold, silver, lead, zinc and other metals are produced. These are referred to as veins because they run through the enclosing rock like veins within the skin.

Mineral deposits may also form when mineral-bearing waters evaporate and the dissolving powers of the water become greatly reduced. In by-gone times, shallow inland seas invaded the central part of the North American continent. Rock salt deposits in Kansas and Michigan, borax in Death Valley, potash in Saskatchewan are a legacy of these ancient seas. Water is also responsible for developing placers, concentrations of gold, gems and other heavy, durable minerals. Resisting chemical alteration and decay, heavy minerals are washed downstream from higher elevations. At a point where the force of the water is no longer sufficient to move them any further, they become deposited.

Mining in the Merritt Area is concentrated in or near to a large intrusion of molten rock called the Guichon Creek Batholith. Batholiths are large regions of plutonic rock (named after the Greek God of the Underworld); rock which has formed at depths within the earth from molten magma and has cooled slowly, forming large mineral grains. The most abundant batholiths are granitic or granodioritic in composition and are exposed along existing mountain chains. One of the greatest regions of batholith formation, forming a virtually continuous mass, 30 km to 250 km wide, extends from SE Alaska, through the Coastal Mountains of B.C. to the northern Cascades of Washington. The Guichon Creek Batholith is part of this vast system.

The Guichon Creek Batholith is quite large, 400 square miles in area, and extends over the region bounded by Lower Nicola, Logan Lake, Cache Creek and Spences Bridge. It is thought that the magma that formed the batholith intruded into this area in several phases. Crystal mush formed a series of concentric ring-like structures that decrease in age inwards, building up a dome-like structure. Radioactive dating, using potassium-argon age determinations, suggest that the rock was emplaced around  $198 \pm 8$  million years ago. It is believed to have crystallized over a short period of geologic time.

As the magma intruded into the overlying rock areas, it altered the surrounding rock. The metamorphism of the area adjacent to the batholith, through heating and hydro-thermal currents changed the rock to a skarn material. It is this skarn area which contains most of the copper minerals at Craigmont. In other regions of the batholith, hydrothermal activity altered mineral materials and copper and molybdenum materials formed ore deposits.

### References

Narthcode, K. E., Geology and Geochronology of the Guichon Creek Batholith, Bulletin 56, Department of Mines and Petroleum Resources.

Ager, C. A., McMillan, W. J. and Ubrych, T. J., Gravity Magnetics and Geology of the Guichon Creek Batholith, Bulletin 62, Department of Mines and Petroleum Resources.

Bristow, J. F., Geology of Craigmont Mines.

## Profiles

### THE RASPBERRYS

By Allan James

Mr. Thomas Raspberry and his wife Mary (nee Kilroy), arrived in Canada in 1894, to settle and set up business in Lytton, B.C. They had three sons, Ted, Archie, Fred and one daughter Ruth, later to marry Duncan Currie.

Mr. Raspberry started a successful meat market business in Lytton. Mrs. Raspberry had a brother, Patrick Kilroy who had been in Canada for some 33 years when the Raspberrys arrived from Harpley, England. Mr. Kilroy was ranching in the Minnie Lake



Mary Raspberry

area at the time. It is not clear if there is any connection between Mr. Raspberry's business and Mr. Kilroy's ranch, but it seems likely.

After Thomas Raspberry's death in 1896, Mrs. Raspberry moved to Minnie Lake with her four children to stay with her brother, Patrick. Although I find no mention of this anywhere, I do find in Nina Woolliams' book "Cattle Ranch" that Douglas Lake Cattle Co. purchased 800 acres from the Raspberry brothers, Archie, Fred, and Patrick in 1916. These names represent the sons of Mrs. Mary Raspberry except for the name Patrick, which could have referred to Patrick Kilroy.

Mrs. Raspberry lived out the remainder of her life with her daughter and son-in-law, Duncan Currie of Nicola.

### George Mercer Dawson

D.Sc., A.R.S.M., F.G.S.  
1849-1901

The first geologist to study the Highland Valley was Dr. G. M. Dawson in 1888. During the three years 1888-90 Dawson and his party carried out intensive geological surveys of the Kamloops map area which included the Highland Valley. His map No. 12, was printed as an appendix to the Geological Report of 1894. Members of Dawson's party were in the Highland Valley in each of the three years 1888, 1889, and 1890.

Born in Pictou, Nova Scotia in 1849, Dr. Dawson moved as a child to Montreal where his father became Principal of McGill University. Young Dawson took some of his university training at McGill completing it at the Royal School of Mines, London.

In addition to being a geologist, Dr. Dawson was a noted ethnologist, archaeologist, and botanist.

In 1875, Dawson was appointed to the staff of the Geological Survey of Canada after his classic report on the Geology of the 49th parallel from Lake of the Woods to the Pacific which work he had commenced in 1873. In 1895, Dawson succeeded Selwyn as Director of Geological Survey in Canada.

Dr. Dawson's field work was carried on mainly in the British Columbian Cordillera. In 1875, he worked the lower Fraser River; 1876 Nechaco, Blackwater, Salmon Rivers, Francois Lake; 1877 southern British Columbia including the Okanagan, Similkameen, Nicola and Fraser Canyon; 1878 Queen Charlotte Islands; 1879 North Central British Columbia from Port Simpson (Prince Rupert) to the Peace River to Edmonton; 1888, 1889, 1890 Kamloops map area.

In addition to the valuable work done for the Geological Survey some details of which have been printed in its annual reports, he also contributed geological papers to the Royal Society of Canada and the Royal Colonial Institute, London.

Although small in stature, G.M. Dawson was probably the greatest 19th century British Columbian explorer. It is timely to draw attention to this giant and his early discoveries in the Highland Valley when the valley's colossal mining projects are in full swing.



G. M. Dawson

### George Novak

By Katharine Howes

George Novak was one of the earliest prospectors in the Highland Valley. According to the Ashcroft Journal, January 31, 1963, Novak came to Ashcroft in 1896, then returned to the Slocan Area to other prospecting interests. Du Bois, an old time Cariboo miner passed on information to Novak regarding copper ore reportedly found in the Highland by Spence, an Indian.

Apparently, Novak staked the Transvaal Claims September 20, 1899. The 1902 Report of the Minister of Mines, states that Novak and his partners, Hosking and Knight, had opened up good sized bodies of ore on the Transvaal property.

Novak continued to work his Highland Valley property until 1929. The low price of copper, the broken condition of the ground, the difficulties in hauling ore out were factors which contributed to all but abandoning his work. From 1926, Novak carried claims out of his own pocket as his partners, one by one, became disillusioned. The Minister of Mines Report (1930) refers to Novak as "plucky". One might say that Novak represented those legions of plucky miners and prospectors who through their indomitable spirit and optimism never gave up looking and trying. They never made it "big" and often lived a precarious hand-to-mouth existence. They dreamed and believed and worked. Their contribution to the mining fraternity is often overshadowed by the few who were eminently successful by being in the right place at the right time.

George Novak retired to live in Ashcroft at age 90. He died in 1955, age 94.

# Highland Valley Copper

[FORM B.]

BRITISH COLUMBIA.  
MINERAL ACT, 1896.  
RECORD OF MINERAL CLAIM.

By Pat Lean

In his recent (1978) book "Mining - The History of Mining in British Columbia", G. W. Taylor afforded the Highland Valley two paragraphs and one picture. You may wish to be the judge as to whether this valley should have been given fuller treatment by Mr. Taylor. Consider the following summary of events leading to the present mining activity in the "magical Highland Valley".

Geologists believe that the Guichon Creek Batholith in which the Highland Valley is located was thrust up from the bowels of the earth during the Upper Jurassic period of the Mesozoic era. This was about 200 million years ago and corresponds with the beginning of the age of the dinosaurs. It was during this formative period that porphyry copper was deposited in the igneous rock of the area.

Subsequent events include volcanic action. Mount Glossy, and Forge Mountain are remains of the northern side of a volcanic cone and Gnawed Mountain is a part of the southern side. The Divide Lakes are formed within the crater. At least two, and possibly four, glacial periods descended upon the whole Nicola area. These glaciations brought snow and ice to a depth of several thousand feet. The final glacial period, the "Fraser", receded about 10 thousand years ago. As the ice receded a lake in the Highland Valley was formed between the front of glacial ice and a natural dam laid down by glacial action. This lake served to collect silts before it drained. Gradually, the land in the Highland Valley came to support a prolific growth of flora and fauna. The lakes supported an abundant fish life. Thus it was in 1956 that the headlines in the Vancouver Sun read "Miners Take Over Fishing Paradise."

As explained earlier, the Highland Valley is not really a valley but rather the crater of long-extinct volcano. It is located in the same chain of mountains as Mt. St. Helens, the recently re-activated volcano in the State of Washington. The name, Highland Valley, is however, a good one because at 3900 feet, it is high and with the peaks of Glossy and Forge on the north and Gnawed to the south, every appearance is given of a valley. The name was used as early as 1888 when Dr. G. M. Dawson's geological party visited the area. Dr. Amos Bowman was in the area of Mamit Lake earlier (1883 to 1884) but it is not known if he ventured into the Highland Valley.

Continued On Page 8

..... *Last Chance* Mineral Claim.  
..... *70815* ..... No. of Certificate.  
Located by *Thomas G. Hartwick*

..... *22<sup>59</sup> Sec. 77038* .....

The claim is situate *on top of mountain*  
*on Fish Lake Valley north of*  
*Shuker's cabin*

..... *600* ..... feet to the right and  
..... *900* ..... feet to the left of the location line.

The direction of the location line is *S. 11° by N*

The length of the claim is *1500* feet.

The claim was located on the *4<sup>th</sup>* day of *October*, 189*6*

Recorded this *26<sup>th</sup>* day of *October*, 189*6*

*G. C. Install*  
Mining Recorder.

[If the stakes are not on the location line, comply with section 18.]

**Copy of Record of the first mineral claim  
staked in the Highland Valley.**

Continued From Page 7

Access

When Dr. Dawson carried out his geological research in the Nicola Valley in 1877, he found the existing map at that time inadequate. He therefore developed his own map. This was published in 1886 entitled

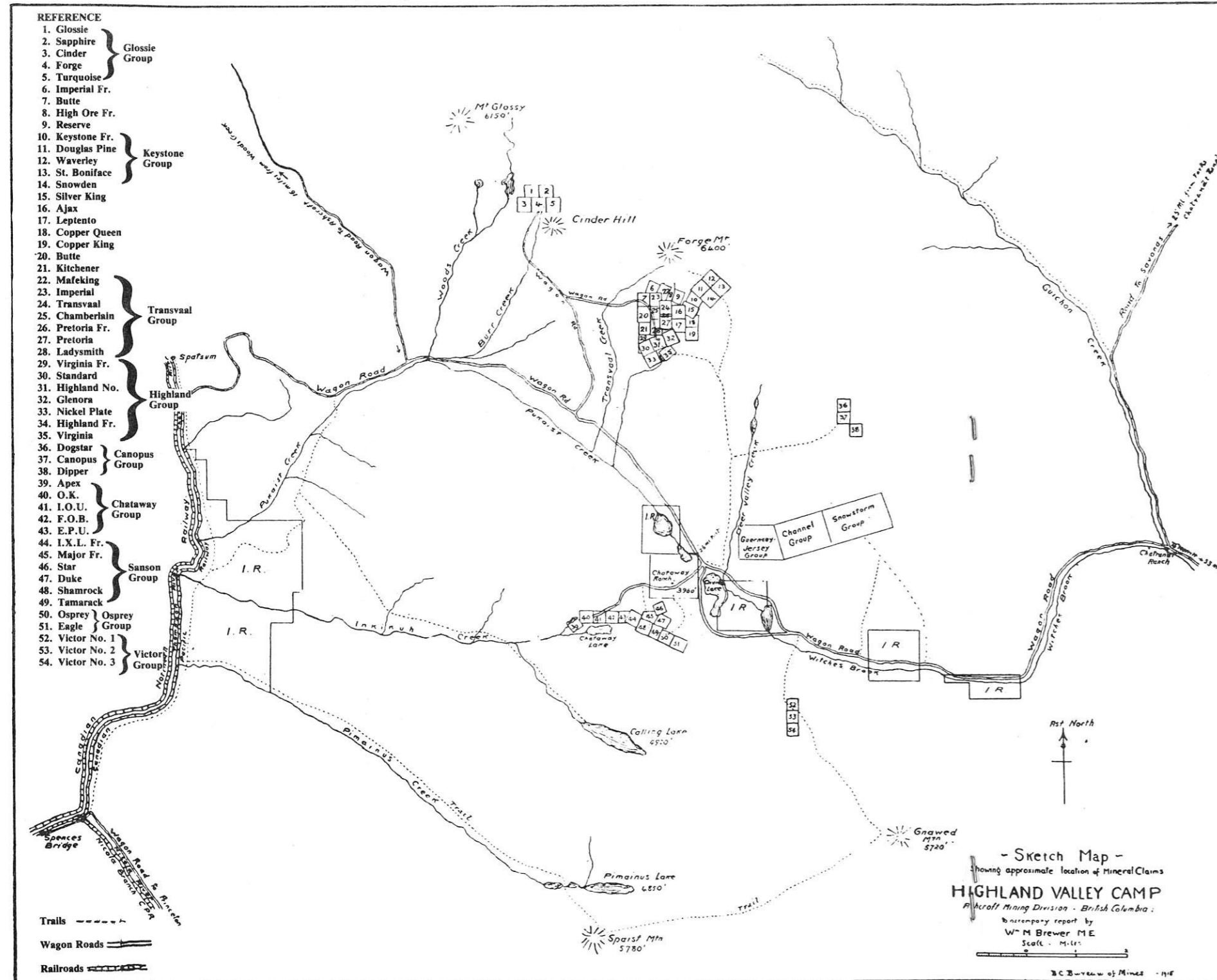
"Map of a portion of the Southern Interior of British Columbia embodying the explorations made in 1877 by G. M. Dawson and in 1882-4 by Amos Bowman." Only two features of the Highland Valley were named on this map, Mt. Glossy and Forge Mt. Trails were shown leading northerly along the east side of Guichon or Ten Mile Creek to Tunkwa Lake and down Three Mile Creek to Kamloops Lake; and another extending nor-

therly and easterly along the east and south side of the Thompson River from Spences Bridge to Kamloops Lake.

In his 1895 map, Dr. Dawson indicated the existence of two trails into the Highland Valley. One leading from the Thompson River up Inkikuh Creek to Calling Lake. The other a few miles further north up Pukaist Creek and down Witches Brook to join the Guichon Creek-Three Mile Creek trail. It is

possible these trails were being used by the natives for hunting and fishing prior to the arrival of the white man.

The Dawson geological party was in the Highland Valley in each of the years 1888, 1889, and 1890. In Dawson's report of 1894, reference is made to Woods Creek. This name may have been assigned to this stream in 1890.



Map taken from the Minister of Mines report, 1915. Note that Chataway Lake as shown is now designated O.K. Lake. Divide Lake is now known as Quiltan-ton Lake.

DISCOVERY PERIOD 1896-1907

In 1896, Thomas G. Kirkpatrick staked the first mineral claim in the Highland Valley, the *Last Chance*. Soon he and his partner, a Mr. Shuler who had a cabin near the claim, entered into an agreement with a French company for the development of the claim.

A shaft 80 feet deep sunk on the *Last Chance* in 1897 soon filled with water and development halted.

In 1901, it was proposed that a road from the valley to connect with the wagon road at Pennies (Walhachin) be built in order that provisions and heavy equipment such as pumps might be brought to the camp.

The *Transvaal* group of mineral claims was staked in 1899. This group staked by William Knight, James Hosking and George J. Novak included *Mafeking*, *Ladysmith*, *Chamberlain*, *Imperial* and *Pretoria* mineral claims. One cannot help but wonder if the Boer War, the "Last Great War of Empire" was the motivation for the prospector's trip into the Highland Valley, or was the prospector just utilizing names that were on everybody's lips in those days?

The *Highland* group which included *Highland Standard*, *Glenora*, and *Virginia* claims was the first to have any sizeable ore dump ready for shipment. In 1902, between 700 and 800 tons were stockpiled awaiting the construction of a road.

Other early claims worthy of note were *British Lion*, *United*, *American Eagle* owned by Campbell, Woods and Co.; *Albatross*, *Buttercup*, *Ajax*, *Laplander*, *Wren*, of Hosking, Knight and Co.; *Silver King*, Decker, Lyne and Co.; *Sadie*, Wade, Lewis and Co.; *Star Tamarack*, *Shamrock*, of Leitch, Cargile and Co.

In the years prior to the completion of the wagon road from Ashcroft to the Highland Valley in 1905, little real development could have taken place. With the new road, interest was now being shown by companies with capital.

The first such company was the Trail smelter (Cominco) who received a \$75,000.00 bond on the *Transvaal* group.

The Provincial Mineralogist, W. Fleet Robertson, thought the Highland Valley was of sufficient interest to pay it a visit in 1907. His report appears on pages 135-137 of the Minister of Mines Report for that year.

This report includes notes on the *Transvaal*, *Highland*, *Albatross* and *Tamarack* groups which have been mentioned earlier. For the first time, the groups *Keystone* and *Storm* appear.

The *Keystone* group was owned by George Novak, Al. Johnson, J. S. C. Fraser, and John Cowans.

By 1907, Mr. Kirkpatrick's *Last Chance* mineral claims had become part of a new group called the *Ball*. This group included such claims as *Handball*, *Football*, *Baseball*, *Cricketball*, *Smallball*, etc. Adjoining the *Ball* group was the *Storm*. Some of the claims in this group were *Rainstorm*, *Snowstorm*, *Hailstorm*. Both these groups were held by Stuart Henderson and Gilbert Couverette of Ashcroft.

During the period 1905-07, the wagon road from Ashcroft was extended through the Highland Valley to join the road to the Nicola Valley on Guichon Creek.

EXPLORATION PERIOD 1908-1959

In 1911, a Glasgow company took an option on three groups of Highland Valley claims for \$160,000.00. The groups involved were the *Tamarac Bluejacket* and *Topnotch*, owned by Messrs. Ward, McGullivray, Norton, Cameron, Chataway and Dr. Samson. It was optimistically predicted, considering the values in the ore found in these groups, that with the proper capital, a large mining camp would be established.

This prediction was not to be fulfilled for many years. Again in 1912, in his report, H. P. Christie, Mining Recorder, pointed out "the lack of transportation facilities . . . prevent any shipment of ore, as the ore is not of high enough value to stand wagon-haulage to the railway, while the development of the camp is not as yet sufficient to justify any plans for a railway."

Mr. W. M. Brewer, M.E., visited the Highland Valley in the months of September and October, 1915. His notes appeared in the Minister of Mines Annual report for 1915 at pages K 270-81.

Mr. Brewer stated that Stuart Henderson of Victoria commenced mining the *Snowstorm* group and made shipments totalling about 90 tons (3 cars). The *Last Chance* which had become the *Ball* Group in 1907, was now known as the *Guernsey-Jersey* group. A new group, *Channel*, was also located in this area. These two groups were also owned by Stuart Henderson.

The *Albatross* of 1907 was in 1915 known as the *Canopus* group and owned by George Ward, Dr. Samson and George H. Chataway of Ashcroft.

Continued On Page 10



Continued From Page 9

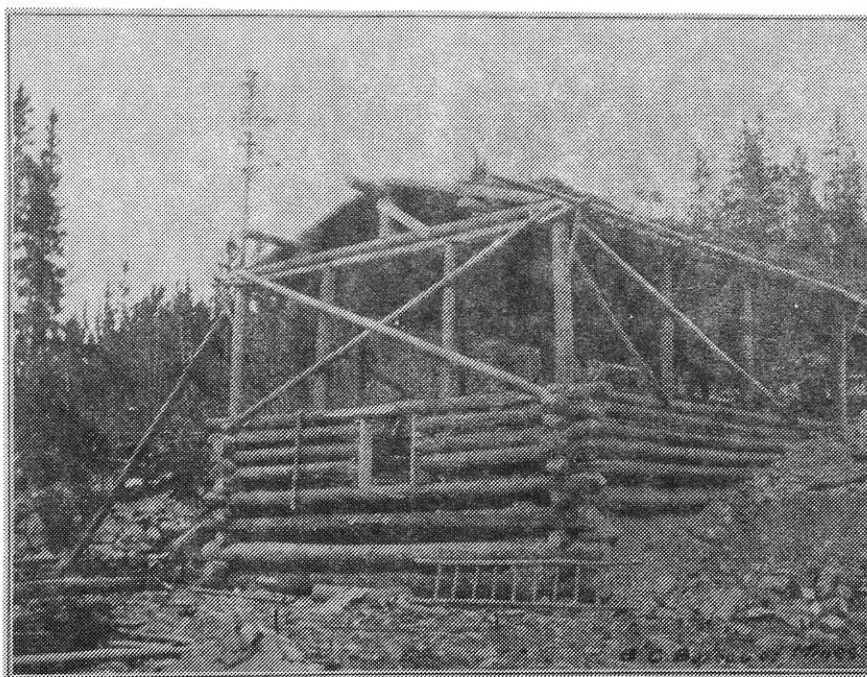
Mr. Brewer made note of the *Glossie* group owned by Joseph W. Burr which was under bond to Carlson, Dunlevy and Gerle of Vancouver. The bonding company constructed several camp buildings, improved the road and shipped 21.8 tons (one car) of ore to the Tacoma smelter before it dropped its option early in 1916.

The *Chataway (OK)* and *Tamarack* groups of Chataway, Samson and Ward were reported by Brewer in 1915 to be under bond to Frederick Keffer, and Henry Johns of Spokane, who had formed the Highland Valley Mining and Development Company (N.P.L.) in Washington. Some work was being done on the *OK*.

Two new groups mentioned by Mr. Brewer were the *Osprey* and *Victor*. The *Osprey* group adjoined the *Tamarac*, while the *Victor* was staked on new ground to the south and east of Quiltanton Lake.

With regard to transportation and access, Brewer made these comments: (Minister of Mines Report, 1915, p. 281), "The wagon-road from Ashcroft to Highland Valley is a portion of the route from Ashcroft to the Nicola Valley, about seventy-five miles in a southerly direction. This road . . . was found . . . to be so constructed as to grades, etc., as to be well adapted for automobiles as well as wagons, and during the past summer was frequently used by autos. There is, though, a much nearer route, between Highland Valley and the Canadian Pacific Railway than the present one; this would reach the railway at Spatsum Siding, thirteen miles in a southerly direction from Ashcroft, or at another point on an Indian reserve about four miles farther south at the junction of Pukaist Creek with the Thompson River. Pioneers in this district informed the writer that a good wagon-road could be readily constructed to either of these points, and the distance to the railway from any distance to the railway from any of the mining properties in the Highland Valley camp shortened by about fifteen miles. If such a wagon-road were built, it would mean a reduction of nearly, if not quite, 50 percent, in the cost for transporting ore in wagons or sleighs, which during 1915, ranged from \$6 to \$8 a ton, an almost prohibitive tariff, except where ore contained more than 10 percent in copper values, which is a much higher grade than the bulk of the ore found in the Highland Valley camp."

The conclusion reached by Mr. Brewer after his examination of the Highland Valley Camp was that, (from the Minister of Mines Report, 1915, p. 270), "while there is a considerable tonnage of high-grade bornite and chalcocite copper ore on several of the mineral claims, yet that the future growth and prosperity of the camp will eventually



*Glossie shaft-house, Highland Valley - Ashcroft M.D.*

centre around the apparently extensive bodies of low-grade copper ore. To systematically and thoroughly prospect and develop these deposits diamond-drill boring would appear to offer more advantages than the slower and more expensive method of opening up the mineral-bearing zones by working openings."

From the *OK* and *Snowstorm* groups were shipped four carloads each of ore in 1916. There was a 35 ton concentrator installed on the *OK* and 1487.8 tons (wet) of concentrates were shipped in 1917.

The *OK* mine was the only shipper in 1917, but it too, shipped no ore in 1918.

In January, 1919, diamond drilling as recommended by Brewer in 1915 was carried out by the Department of Mines. Eight holes were put down to depths of from 400 to 1125 feet on the *Snowstorm* and *Iona* groups. It was proposed that more drilling be carried out on the *Iona* claims, but this never came about.

The copper values on the *Snowstorm* were shown to vary from .5% to 2% with lower values predominating. Some pits, however, ran as high as 6 to 10%.

Once again in 1922, the transportation problem was considered. This time it was suggested that a good road over a 6 or 7 mile easy grade from the *OK* mine west to the brow of the Thompson River should be built. From that point, an aerial tramway could be constructed to connect with the CPR.

In 1923, a new method of treating low grade copper carbonate ore was developed in Utah. This was of particular interest to the holders of the *Snowstorm* group which had proven a large body of low grade ore.

Two new groups, the *Kathleen* and *Empire* were staked near the *OK* mine in the early 20's.

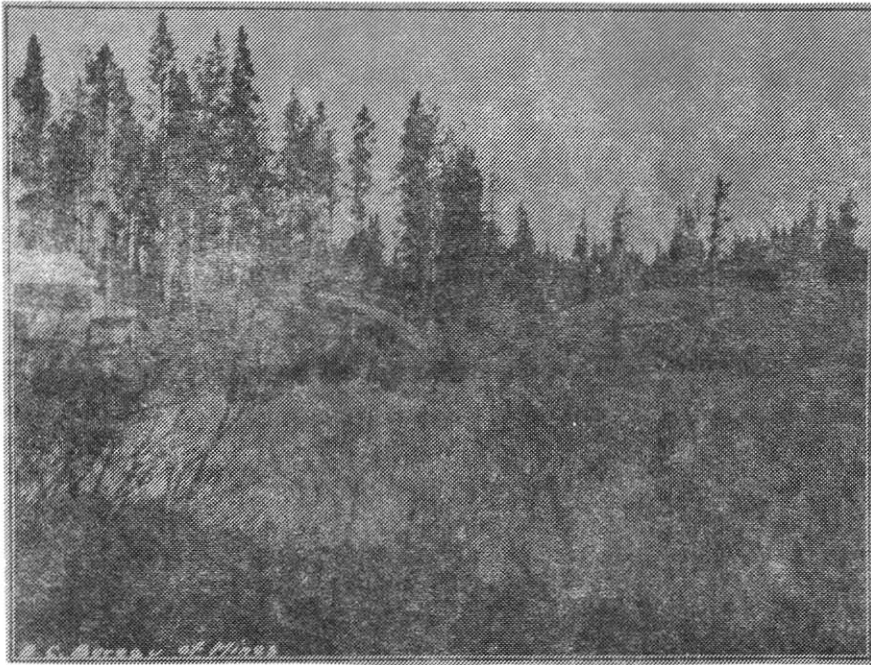
In 1924, it was suggested that a rail line be built from the Highland Valley to connect with the Nicola Branch at Lower Nicola.

During the late 1920's and 1930's, many of the claims were allowed to lapse. George Novak, who held his *Highland* and *Transvaal* groups for many years although living in Rossland returned to the valley.

The *Snowstorm* was allowed to lapse and was re-located in 1929.

In 1936, J. S. Stevenson, under direction of Dr. Holland, inspected and reported on the *Transvaal*, *Highland* and *Keystone* groups of George Novak of Ashcroft and J. Hosking of Cobalt, Ont. Much work had been done on these claims, but no ore ever shipped.

In 1937, the *Snowstorm* and *Iona* groups were scrutinized by M. S. Hedley for the Department of Mines. The old claims had lapsed and were restaked by Chris R. Allan of the Vancouver based Butalma Mining Company under the names *Windy Pass*, *Tunnel*, and *Cu*. By this time, the elevated plateau on which these claims were located was called Kirkpatrick Mountain in honour of the locator of the *Last Chance* in 1896.



*Chataway's Ranch, Highland Valley.*

James Rodda supervised the restoration of the old *Snowstorm* shaft in 1940. The plan was to drift on a bornite vein.

Ventures Limited optioned the property in 1942 and carried out 2359 feet of diamond drilling on the *Jersey* and *Iona* claims.

In 1948, W. E. Cockfield for the Geological Survey of Canada reported on the *Snowstorm* group in his memoir 249 on the Nicola map area.

S. Duffell and K. C. McTaggart were authors of Memoir 262 in 1951 on the Ashcroft Map area. This report dealt with the *OK*, *Kathleen*, *Glossy*, *Transvaal*, and *Highland*.

On the *OK* the concentrator installed in 1917 was still in place, but the buildings were useless and the workings were not accessible.

Little work had been done on the *Kathleen* three miles south of the *OK*.

The *Glossy* was in 1951 owned by J. L. Burr (1888-1960), a son of J. W. Burr (1851-1929), one of the original owners. Little work had been done since 1916. The buildings were in very dilapidated condition.

The Novak groups, *Transvaal* and *Highland* were not accessible by motor vehicle, the road being in such bad shape. The workings were badly caved in on both claims and thus not accessible for geological inspection.

In the 1950's, there were radical changes in the whole field of mining, all the way from initial prospecting through to the disposal of the milled ore.

Big is the best word to describe the new approach to prospecting and mining. Big companies become involved with big money. Big blocks of claims in the hundreds were staked around the original 8 or 10 discovery claims.

These changes were heralded in the Highland Valley with the arrival of H. H. Huestis in November, 1954. Huestis and associates Pat Reynolds and J. A. McLellan formed the Bethlehem Copper Corporation, took over the old *Storm*, *Iona*, and *Jersey* claims, immediately staked more ground to bring their holdings to 112 claims. They then brought in American Smelting and Refining Co. Ltd. to carry out an intensive diamond drilling program.

The optimistic reports of the drilling program on the Bethlehem property brought about a staking boom in 1956. Of the 7300 claims staked in the Kamloops division, in 1956, over 6,000 were staked in the Highland Valley.

By 1957, most of the property in the valley was controlled by three companies: American Smelting and Refining Company Ltd., Kennecott Copper Corporation (through its subsidiary, Northwestern Exploration Ltd.) and Phillips Dodge Corporation (through its subsidiary, Anson Mines Limited).

It is not necessary for this article to determine the corporate moves in the Highland Valley. It is important to understand a little of the background. Using Bethlehem as an example.

When Bethlehem was formed, the company had limited financial resources. It, therefore, interested the American Smelting and Refining Co. Ltd. in carrying out an intensive exploration program. In return for this program, certain options were given to the American Smelting and Refining Co. At the end of the program, the company had to decide whether to go further or withdraw. In this case, the initial option was for 3 years expiring in 1958.

An extension of one year was granted. Then, in 1959, the American Smelting and Refining Co. Ltd. decided to go no further, and dropped out of the picture.

Similar arrangements were made by other companies holding claims in the Highland Valley with Kennecott and Phillips Dodge being the main Development companies.

## **DEVELOPMENT PERIOD**

### **1960 - to date**

When the American Smelting and Refining Co. Ltd. dropped its option on the Bethlehem property, Sumitomo Metal Mining Company of Japan took over, pouring 5½ million into the project in return for a 10 year contract for the total production of the mine.

On December 1, 1962, the first copper concentrates poured from the mill, although the official opening did not take place until February 1, 1963. "All it needed was funds and nerve," Huestis was quoted. It needed these certainly, but it also required an ore body, a market and a great deal of hard work.

Lornex Mining Corporation, the second operation to come in the Highland Valley, will be dealt with in another article.

*Continued On Page 12*

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## Glossy

While the *Glossy* claims of Burr and Co., staked in 1904 are still in good standing, little work has been done on them since 1915.

## Trojan

The *Transvaal*, *Highland* and *Canopus* groups are today the key claims in the holdings of South Seas Mining Ltd. This company is operating in a small way with only one or two men working.

## Victor

This is the only group dealt with in 1915 that became a part of the Lornex Mine.

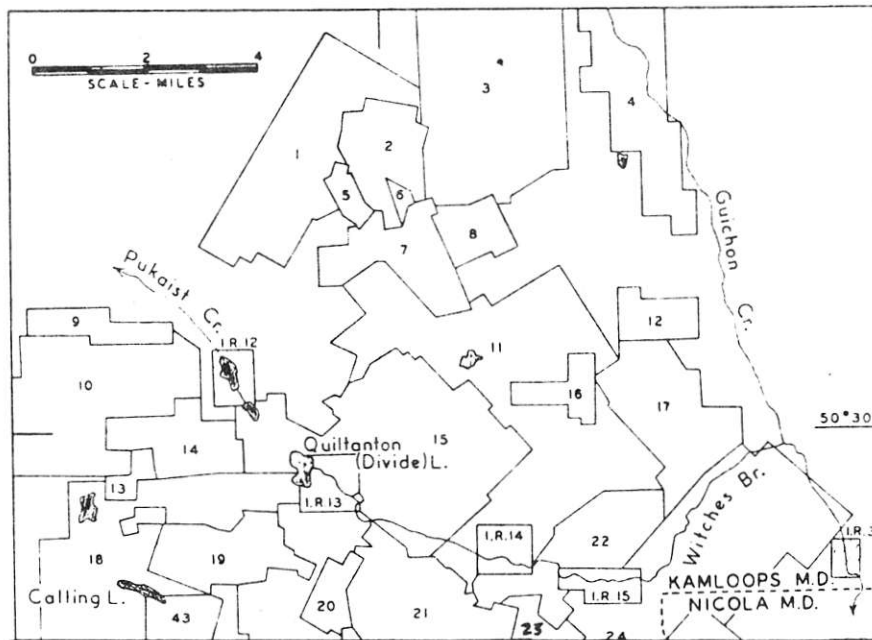
## OK

The Chataway groups of 1915 became known as the *OK* because of the claim of this name. Also in the group were the *I.O.U.* and the *Apex*. The *OK* syndicate was organized in 1971 by Alwin Manufacturing Co., International Minerals and Chemicals Corp. and Dekalb Mining Incorporated to develop this group. Unlike the other mines in the Highland Valley, the *OK* is completely underground. It is expected that the *OK* will be producing this year.

## Highmont

This company was formed in 1977 and is scheduled to go into production this fall (1980). The company was formed by the amalgamation of Farwest Resources and Highmont Manufacturing Corp. Ltd. Teck Corporation is holder of a majority of the shares of *Highmont*.

*Highmont* holds about 75 claims on the north slope of Gnawed Mountain. When in production, it will work two zones, the east and west. Plans are well underway, with a projected expenditure of \$150 million for the construction of a 25 thousand ton per day mill. It is expected when completed that the mine will produce 50,000,000 lb. of copper and 5,000,000 lb. of molybdenum.



A portion of the index map of the Highland Valley area showing the claim groups as they existed in 1966 according to the Minister of Mines Report.

Numbered properties are as follows:

1. Bear (North Pacific Mines Ltd.)
2. Krain (North Pacific Mines Ltd.)
3. Lux, Cindy (Canzac Mines Ltd.)
4. W. D. R., Nona.
5. Transvaal.
6. Salmo Prince Mines Ltd.
7. Trojan (South Seas Mining Ltd.)
8. Sam (Burlington Mines Ltd.)
9. NIM (New Indian Mines Limited).
10. RAF, TAM, MER, JAC (Cleveland Mining and Smelting Co. Ltd.)
11. Beaver, Lodge, Dave, Outrider (Valley Copper Mines Ltd.)
12. JB (North Pacific Mines Ltd.)
13. EZZ (Alwin Mining Company Ltd.)
14. AL, IC (Continental Consolidated Mines Ltd.)
15. Bethlehem Copper Corporation Ltd.
16. BX (B.X. Mining Company Limited).
17. Eden, Ezra, Job, C.L. (New Indian Mines Limited and Vananda Mines Limited).
18. Bethsaida, Tom, BL (Valley Copper Mines Ltd.)
19. Noranda Exploration Company Limited.
20. Victor (Consolidated Skeena Mines Ltd.)
21. Sheba (Peel Resources Limited).
22. April, UP (Red Rock Mines Ltd.)
23. Gaza Mines Ltd.
24. Jericho Mines Ltd.

## Valley Copper

By far the most exciting prospect in the Highland Valley today is *Valley Copper*. This company, 80% owned by Cominco Ltd., holds about 280 claims in the valley with the main copper body bordering the Lornex property to the northwest. It is understood that this property is capable of providing an amount of copper on an annual basis equal to 10% of the world yearly production.

Included in the *Valley Copper* holdings are the *Kathleen* and *Empire* claims and the *Sanson*, *Tamarack* and *Osprey* groups.

The cost of bringing *Valley Copper* into production is estimated to be in the neighbourhood of half a billion dollars. In order to put up this kind of money, a company must move slowly, surely and with iron clad guarantees if it wishes to succeed.

## Acknowledgements

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## The Mine-Finders

By Murphy Shewchuk

Although a great many men and women played an important part in the successful development of the massive copper mines in British Columbia's Highland Valley, two men stand out above the rest.

Herman H. "Spud" Huestis and Egil H. Lorntzsen are considered by many to be the fathers of Highland Valley copper. These men worked separately and established separate mining ventures but they shared a common conviction that a fortune lay beneath the lodgepole pine of this upland valley. They also shared a personality trait common to farmers, ranchers, fishermen and prospectors. To quote Lorne Hunter, vice-president, general manager of Lornex Mining Corporation Ltd., "They were probably your most basic free-enterprisers. Super-conservative, absolutely free-enterprisers!"



H. H. "Spud" Huestis.

HERMAN HAGERMAN HUESTIS, known to the mining fraternity as Spud, was born in Fredericton, New Brunswick, in 1907. He came from a family with a long history of mining. While in High School in Superior, Wisconsin, he acquired his first taste of prospecting in the Mesabi iron country of northern Minnesota. When he was 19, his prospecting forays brought him to British Columbia.

During the next three decades, his work took him to most of Canada, the United States and West Africa. Then, in 1954, with considerable experience under his belt, Spud Huestis joined Jack McLallen and Pat Reynolds to form a syndicate to prospect the Highland Valley.

In 1955, the Bethlehem Copper Corporation was formed and took control of the Huestis-McLallen-Reynolds holdings. Further studies by geologists indicated that ore reserves exceeded 68,000,000 tons. Assay results from preliminary work showed that copper wasn't the only mineral in the Highland Valley ore body. Traces of molybdenite, silver and gold were also revealed.

However, as even the most optimistic prospector knows, the evidence of a mineral does not necessarily create a mine. Large amounts of capital would be needed before an operation of the scope needed to mine the low grade ore could begin producing. After several attempts at financing, officials of Bethlehem met with representatives of Japan's Sumitomo Metal Mining Co. Ltd. in 1959. Following more negotiations, Sumitomo went into partnership with Bethlehem, providing \$5.5 million to enable Spud Huestis and his associates to get their mine into production.

Work proceeded quickly and by December 1, 1962, the giant open pit mine was in operation. The formal official opening took place on February 1, 1963, attracting top ranking officials from British Columbia, Ottawa and Japan.

Spud Huestis, Jack McLallen and Pat Reynolds were justly proud of their achievement.

In 1966, because of ill health, Spud Huestis retired to a small farm at Abbotsford, B.C., where he raised Polled Herefords. In 1977, Spud became the first recipient of the *H. H. Huestis Award* for excellence in prospecting created by the B.C. and Yukon Chamber of Mines.

Herman Hagerman "Spud" Huestis died on August 23, 1979, leaving his wife Jean, a daughter Jane and son Patrick.



Egil and Iris Lorntzsen.

EGIL H. LORNTZSEN is also a Highland Valley mine finder of note. Egil Lorntzsen was born in northern Norway in 1908 in the village of Andenes near Tromsø. He received an education in commerce before shipping out on the sealing fleet and later joining the Norwegian Merchant Marines. He arrived in Canada in 1932, and spent the first half-year in Prince Rupert, B.C.

In February, 1934, Lorntzsen moved to the Bridge River Valley, west of Lillooet. He worked at Pioneer, B.R.X. and Minto during

the winter months of 1934/35, and 36/37, studying geology and minerology in his spare time. During the summer months, he prospected the neighbouring mountains. He mapped the geology of the Congress gold-antimony mine in 1940. In 1941, Lorntzsen, with Gunnar Lundborg, discovered a high grade vein of tungsten and formed the Tungsten King mine.

"Gunnar Lundborg and I hand-mined high-grade tungsten that helped keep the Bralorne mill going during the early war years," said Lorntzsen during a May, 1980, telephone interview.

During the summers of 1943 and 1944, Lorntzsen prospected in northern B.C. for Leta Explorations. In 1945, he became managing director of Federal Gold Mines. He later shifted his attention to Dutch and British Guiana where he had a small mill in operation. "We also had a very high grade gold vein - a five-foot-wide seam of beautiful ribbon quartz - on the Saramacca River in Dutch Guiana (now Surinam). It ran almost two ounces to the ton, but it was a very difficult, remote and swampy area. In 1947/48, it was almost impossible to obtain financing for gold operations and everybody had to pull out," said Lorntzsen.

Before his sojourn to the Guianas, Lorntzsen married Iris Brandon. After his return to British Columbia, he obtained employment surveying claims in the Highland Valley during the porphyry excitement of the mid-fifties. Iris joined him on some of his summer trips and worked for two weeks as his chainman. "But," said Egil, "she wasn't actually too interested in the life of prospecting, but enjoyed taking the occasional mining trip."

Lorntzsen first staked claims on what is now the Lornex property in 1958-59. For the next two years, exploration work continued, optioning the property to Kenco. Then, in 1963, Lorntzsen let the option of his Award and Iris groups (about 120 claims) to Noranda Explorations.

"Iris and I went to Europe," said Lorntzsen. "When I came back, I phoned their engineer and asked him how they made out in the Highland Valley. All he said was, 'Well, it's a nice place to spend the summer.' They came up with nothing and dropped the option."

Early in 1964, with Bethlehem Copper in full swing just across the valley, Anaconda took an option on a number of neighbouring properties that Lorntzsen had staked for Minex, Highmont and Red Rock. Lorntzsen offered them an option on his claims. Anaconda's engineers studied Lorntzsen's geochemical data from previous exploration work done by Kenco and Noranda and told Lorntzsen that there was nothing there.

Continued On Page 14

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## LORNTZSEN AND LORNEX

On the 13th of June, 1964, Egil Lorn-tzen found about 400 feet of highly altered granite on what is now called the Discovery Hill. On July 6, 1964, Lornex Mining Corporation Ltd. was incorporated with Egil Lorn-tzen as its president.

After raising approximately \$100,000 privately, Lorn-tzen hired a bulldozer and began trenching on Discovery Hill. Dr. A. C. Skerl, consulting geologist, joined the firm and further trenching and percussion drilling continued to show wide-spread mineraliza-tion.

In 1965, Egil Lortzsen signed an agree-ment with Rio Algom to finance a com-prehensive exploration program. Rio Algom purchased \$4.6 million worth of shares, sell-ing forty percent to Yukon Consolidated Gold Corp. In an effort to ensure that the work would not be abandoned as it had been in the past, Lorn-tzen insisted that the first half-million dollars be spent under his super- vision. During the following years, an exten- sive exploration program took place on the property. Many thousands of feet of trenches were dug to expose the bedrock; percussion drilling and diamond drilling was under- taken; and a 550-foot-deep shaft sunk. In Ju- ly of 1968, the underground sampling and test milling was completed and the property went into caretaker status pending further financing.

In 1970, agreements were completed for the sale of the copper concentrates, financing obtained and a \$144 million construction program began. In the first year of construction, more than 600 people were employed at the mine site, including 450 construction employees. By the end of 1971, the "instant town" of Logan Lake had opened; more than 33 million tons of waste had been removed from the pit site; and construction was well underway on the 38,000-ton-per-day concen- trator.

Lornex's first shipment of copper con- centrates left for Japan in July, 1972, and the mine was in full operation by October of that year. Some of the more impressive mining equipment included four 15-cubic-yard elec- tric shovels and twenty-three 120-ton haulage trucks. During 1973, Lornex's first full year of operation, total output included 100 million pounds of copper; 3.5 million pounds of molybdenum (used in the manufacture of steel); 430 thousand ounces of silver; and 760 ounces of gold.

Except for 1975, when a recession af- fected the mineral market, Lornex's output has continued to rise steadily. New equip- ment has been added, including a 22-cubic- yard shovel capable of lifting 40 tons of ore in a single scoop, and eleven 235-ton capacity haulage trucks - the largest trucks in the min- ing industry today. The mill capacity has also been increased to 48,000 tons per day.



Lorn-tzen on Discovery Hill, 1964.

Late in 1979, after a year of record pro- fits, a \$160 million program was begun to in- crease the production capacity by 68 percent. The program will also increase the number of Lornex employees from approximately 800 in 1979 to 1,100 by mid-1981, bringing the Lornex annual payroll up to approximately \$28 million.

Meanwhile, Egil Lorn-tzen, who had gone into semi-retirement after serving two years as company president and two more as chairman of the board, came out of retire- ment in 1977. "It was just too boring!" said Lorn-tzen. He founded Norsemont Mining Corporation and returned to the exploration business with a vengeance. He staked 100 claims just south of Lornex on the continua- tion of the Lornex fault; he is working "full blast" on copper and molybdenum claims in the Clearwater, B.C. area; is exploring silver and gold properties near Stewart on the north coast of British Columbia; and has other in- terests in northern B.C.

"I'm hoping to turn one of them into a mine," says Lorn-tzen.

Exploration and mine development is still in his blood and for Egil Harold Lorn- tzen, it has been a rewarding vocation. As the largest private shareholders in the Lornex Mining Corporation, Egil and Iris Lorn-tzen are millionaires many times over.

### References:

Interviews with Lorne Hunter, Willis McBride, Glen Scott and Bill Burge of Lornex Mining Corporation Ltd.

Telephone interview and correspondence with Egil Lorn-tzen.

Selected B.C. Ministry of Mines and Petroleum Resources reports.

"Builders of Fortunes" by George Lonn. Pitt Publishing, Toronto.

Western Miner magazine and various an- nual reports from Lornex and Bethlehem Copper.



*150-Ton Haulage truck at Lornex Mine.*

*—Murphy Shewchuk, photo.*

## Place Names in the Nicola Valley

By Pat Lean

- Award Creek** (921/SW) The key groups of the Lornex Mining Corporation Ltd. property were indicated to be the *AM*, *AWARD* and *IRIS* in 1965. Possibly Mr. Lorntzsen could tell us why these names were used for these claims. It appears that the creek which flows northerly along the west side of the Lornex mine took its name from the *AWARD* claims. The name *AWARD* has also been assigned to the geological fault along which the creek courses. On some maps, this is also referred to as Lornex Creek and Lornex fault. (For map, see Minister of Mines Report, 1967, p. 150.)
- Big Creek** See Powers Creek.
- Big Fish Lake** See Paska Lake.
- Big Kid Lake** See Kidd Lake.
- Billy Creek** (921/SW) Flows from the S.W. through Section 32, Tp. 14, R 23, W6M and empties into the Nicola River in Section 3, Tp. 15, R. 23, W6M. In Nooautch Indian Reserve. Reason for this name is not known.
- Billy Lake** (921/SE) Northwest of Mamit Lake, east of Gnawed Mtn. Rubert Stefens tells us that the Quenville's had a couple of cabins here. But he does not know who it was named for.
- Birkett Creek** (921/SE) Flows easterly into Stumbles Creek. Birkett Jackson owned the land where Craigmont Mine is located today. Birkett was noted as a "waterwitch" and also for his raspberries.
- Black Mountain** See Thyne Mountain.
- Blackburn's Ranch** This is one of the ranches acquired by Joseph Guichon to form the ranch now divided into Gerard Guichon Ranch and Quilchena Cattle Company.

## Acquisitions

January - July, 1980

By Jean Conlon

- |   |  |
|---|--|
| Berta Fraser  | Manuscript, 1 Kodak lens.  |
| J. E. Barrett   | One copy <i>Elder Statesman</i> .  |
| Pat Steffens  | Assorted household articles.   |
| Cindy Luker   | First Aid to the injured.  |
| Ministry of Highways                                    | Working desk.  |
| Andy Blomberg,  |  |
| Charlie Graham  | One hundred year old hand-made and hand-forged oxen harness.                                       |
| Karl P. Messner   | Gas flat iron with stand and pump.   |
| Gladys Moffat   | Pongee silk kerchief, photo of first airplane.   |
| P. Harrison   | <i>In God's Country</i> , by F. E. Runnalls.   |
| L. Hunter   | Two airphotos of Logan Lake.   |
| Brian Chance  | Postcards of Merritt, 1907, Canadian News Service Release.   |
| R.N. Atkinson Museum                                    | Nicola Lodge Number 53, 1913.  |
| Pete Malach   | Assorted artifacts - re: Allan DeWolf.   |
| Gerard Guichon  | Victory Edition <i>British Columbian</i> .   |
| Ministry of Energy,<br>Mines and Petroleum<br>Resources | Fifteen photographs from Annual Reports, June 24, 1919.  |
| Margaret Mitchell                                       | Photocopy of <i>Mother Earth's Treasure Vaults</i> , 1905. Two pictures of Jessie (Alding) Hunter. |
| Addie Lean  | Flashback clippings.   |
| Mollie Broderick,<br>Nellie Williams                    | Maps, letters, photographs, newspaper clippings.   |
| Guy Rose  | The Mercantile Agency Reference Book.  |
| Eric Brolin   | Newspaper clipping - re: Godfrey Cup.  |
| Art Leese   | Five escavating magazines.   |
| Edith Bristow   | Four cartons of miscellaneous papers related to the Nicola Valley Education, 1927 to 1967.         |