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**ANNIS**  
(Non-Personal Liability)

*Mines Ltd.*

PROSPECTUS  
MAY 4, 1966

# PROPERTY FILE

No Securities Commission or similar authority in Canada has in any way passed upon the merits of the securities offered hereunder and any representation to the contrary is an offence.

A purchase of shares offered by this prospectus must be considered a speculation.

# PROPERTY FILE

ANNIS MINES LTD., (NON-PERSONAL LIABILITY).

## PROSPECTUS

- a) The full name of the Company is "Annis Mines Ltd., (Non-Personal Liability)." The registered office of the Company is at 180 Seymour Street, Kamloops, B.C. and its head office is Ste. 280, 180 Seymour Street, Kamloops, B.C.
- b) The Company was incorporated as a private company under the laws of British Columbia on August 27, 1964. The authorized share capital was then 100,000 shares without nominal or par value with a maximum issue price of fifty cents. The Company was converted to a public company by certificate dated March 12, 1965.
- c) On January 25, 1965, the following amendment was made to the Memorandum of Association. The number of shares without nominal or par value authorized by the Memorandum of Association was increased from 100,000 to 2,000,000 with maximum price or consideration of 50¢ each.
- d) The promoters and directors of the Company are:  
James Stewart McKechnie,  
605 Dominion Street, Kamloops, B.C. - Retired sawmill operator.  
Donn Spankes,  
Monte Lake, B.C. - Prospector and service station operator.  
William Campbell,  
Box 247, Sicamous, B.C. - Lumberman and prospector.
- e) The auditors for the Company are Moen McAusland & Co., Chartered Accountants, 207 - 2nd Avenue, Kamloops, B.C.
- f) The name and address of the Company's transfer agent and registrar is Eastern & Chartered Trust Company, 330 Seymour Street, Kamloops, B.C.
- g) The Company is authorized to issue 2,000,000 shares without nominal or par value of which 1,160,298 shares have been issued and are fully paid.
- h) There are no bonds or debentures outstanding or intended to be issued.
- i) 750,000 shares of the capital of the Company have been deposited in escrow with the Eastern & Chartered Trust Company, Kamloops, B.C. pursuant to an escrow agreement dated the twentieth day of April, 1965. Except with the written consent of the British Columbia Securities Commission, holders of escrow shares shall not sell, deal in, assign, transfer in any manner whatsoever any shares deposited in escrow or beneficial ownership or interest in them and except with the written consent of the Commission, the Eastern & Chartered Trust Company shall not accept or acknowledge any transfer, assignment, declaration of trust or other document evidencing a change in legal or beneficial ownership of or interest in the said shares except as may be required by reason of the death or bankruptcy of any one or more of the holders of escrow shares in which case the Eastern & Chartered Trust Company shall hold the said certificates representing such shares for whatever person or persons, firm or corporation that may thus become legally entitled thereto.

The escrow agreement stipulates that should the Company lose or discontinue development of any of the property acquired thereunder, or should the property not be as represented, such number of escrow shares shall be surrendered for cancellation as the Superintendent of Brokers shall direct or in such manner or proportion as he shall direct.

j) There have been issued 100,000 shares for cash at 5¢ per share, 62,298 shares for cash at 10¢ per share, 48,000 shares to Malcolm Mooney at 15¢ per share, 200,000 shares at 20¢ per share and 750,000 shares have been issued for the properties transferred to the Company. All shares have been issued as fully paid and the total consideration received for shares sold for cash is \$56,029.80. No commissions were paid or allowed on the sale of these shares.

k) No securities other than shares have been sold by the Company, nor is it intended to sell any such securities.

l) No shares have been issued to the promoters of the Company as such. The promoters of the Company are also vendors of the property referred to in paragraph m and received the consideration therein described.

m) The Company has purchased a 100% interest in those located mineral claims located under the provisions of the Mineral Act of the Province of British Columbia known and Described as:

Annis	Number 2	Record No. 46929
Annis	Number 5	Record No. 37202
Annis	Number 6	Record No. 37203
Annis	Number 7	Record No. 38718
Annis	Number 8	Record No. 38719
Annis	Number 9	Record No. 38720
Annis	Number 10	Record No. 38721
Annis	Number 11	Record No. 38722
Annis	Number 12	Record No. 38723
Lakeview	Number 1	Record No. 47079
Lakeview	Number 2	Record No. 47080
Lakeview	Number 3	Record No. 47239
Lakeview	Number 4	Record No. 47240
Lakeview	Number 5	Record No. 47685
Lakeview	Number 6	Record No. 47686
Lakeview	Number 7	Record No. 47775
Lakeview	Number 8	Record No. 47776

All situate within the Kamloops Mining Division. The interest of the Company in such claims is the usual interest acquired by the holder of located mineral claims in the Province of British Columbia. The Company is the registered holder of the entire interest clear of encumbrances under Free Miners Certificate No. 25831 of all the above claims.

The consideration paid for the transfer to the Company of the property above described was the issue and allotment to such vendors of 750,000 shares of the Company issued as fully paid and non assessable which have been allotted as follows:

James Stewart McKechnie	230,000
Donn Spankes	290,000
William Campbell	230,000

To the knowledge of the signatories no person or company has received or is to receive from the vendor of the property an interest in the consideration greater than one-twentieth thereof.

In 1965 the Company staked the following further claims which adjoin the south and east boundaries of the claims previously acquired by the Company:

Dawn	Number 1	Record No. 48161
Dawn	Number 2	Record No. 48162
Dawn	Number 3	Record No. 48163
Dawn	Number 4	Record No. 48164
Dawn	Number 5	Record No. 48911
Dawn	Number 6	Record No. 48912
Dawn	Number 7	Record No. 49188
Dawn	Number 8	Record No. 50816
Dawn	Number 9	Record No. 50817
Dawn	Number 10	Record No. 50850
Dawn	Number 11	Record No. 50851
Dawn	Number 12	Record No. 50852
Dawn	Number 13	Record No. 50853
Dawn	Number 14	Record No. 51547
Dawn	Number 15	Record No. 51548
Dawn	Number 16	Record No. 51549
Dawn	Number 17	Record No. 51550
Dawn	Number 18	Record No. 51551
Dawn	Number 19	Record No. 51552
Dawn	Number 20	Record No. 51553
Dawn	Number 21	Record No. 51554

The Company is the registered holder of the entire interest clear of encumbrances in these claims under Free Miners Certificate No. 25831.

Particulars of the property of the Company referred to in paragraph m including means of access, the character, extent and condition of all surface and underground exploration and development and history of the property are as set forth in the report of Fred J. Hemsworth, P. Eng., dated November 14, 1964 which report covers the Annis and Lakeview claims only and forms part of the Company's initial prospectus, dated April 23, 1965 and the later report of Sherwin F. Kelly, dated March 19, 1966 which covers all the claims presently owned by the Company and which report forms part of this prospectus.

n) On April 22, 1965 the Company entered into an agreement with Malcolm Mooney, Box 260, Osooyos, B. C. for his professional services as geologist for the next two years under the terms of which agreement, Mr. Mooney is granted an option to purchase 4,000 shares per month of the class now existing for the price of 15¢ per share payable in cash and also an option after the two years, to purchase a further 4,000 shares of the class now existing for the price of 15¢ per share payable in cash. The total number of shares subject to such options is 100,000 and the total consideration receivable should all the options be exercised is \$15,000.00. This option has been exercised as to 48,000 shares.

No other options on securities of the Company have been or are to be given and no underwriting agreements have been or are to be entered into by the Company.

The Company now proposes to offer to the public 350,000 shares at 40¢ per share subject to payment or allowance of a commission not to exceed 10¢ a share.

o) The Company plans to pursue the recommendations set out in the report of Sherwin F. Kelly, dated March 19, 1966 filed with the Superintendent of Brokers for the Province of British Columbia, a copy whereof is hereunto annexed.

The following expenditures are proposed:

Drifting	\$20,000
Diamond drilling	30,000
Bulldozing	6,000
Rock trenching	5,000
Assaying	1,000
Laying out geophysical grid	2,000
Geophysical survey	5,000
Purchase of supplies & equipment	3,000
Expansion of camp	1,000
Loss on cookhouse	3,000
Engineering and Supervision	4,000
Reserve for contingencies	10,000
Administration and office expense	7,500
Public relations	2,500
Legal expense	2,500
Audit fees	2,500
	<u>\$105,000</u>

No part of the proceeds shall be used to invest, underwrite, or trade in securities other than those that qualify as investments in which Trust Funds may be invested under the laws of the jurisdiction in which the securities offered by this prospectus may lawfully be sold.

Should the registrant propose to use the proceeds to acquire non Trustee type securities after the initial distribution of the securities offered by this prospectus, approval by the Shareholders must be obtained and disclosure made to the regulatory securities bodies having jurisdiction over the sale of the securities offered by this prospectus.

p) The Company has been incorporated for more than one year having been incorporated on August 27, 1964.

q) There is no substantial indebtedness to be created or assumed that is not shown on the balance sheet as at the 28th February, 1966 as filed with the Superintendent of Brokers, a copy of which forms part of this prospectus. No security has been given for any indebtedness.

r) The principal business in which each director of the Company has been engaged during the immediate preceding three years is as follows:

James Stewart McKechnie	Retired Sawmill Operator.
Donn Spankes	Motel and Service Station Operator and Prospector.
William Campbell	Lumberman and Prospector.

s) The only interest direct or indirect of any of the Directors in any property at any time acquired or to be acquired by the Company is that set out in paragraph m hereof.

t) A remuneration of \$7,750.00 has been paid to Donn Spankes for his full time service to the Company for the seventeen Months ending 28th February, 1966 and this is included in the statement of survey and exploration costs annexed to the balance sheet dated 28th February 1966, a copy of which forms part of this prospectus.

u) During the ensuing year, it is anticipated that Mr. Donn Spankes will devote his full time to the Company and his remuneration will not exceed \$500.00 monthly. Should it be desirable, Mr. William Campbell will also give his full time to the Company as required and his salary will not exceed \$500.00 monthly.

v) Messrs James S. McKechnie, Donn Spankes and William Campbell by virtue of beneficial ownership of securities of the Company could, in combination, elect or cause to be elected a majority of the Directors of the Company.

w) There have been no dividends paid by the Company to date.

x) There is no other material fact not disclosed under any other provision of the Securities Act.

y) The foregoing constitutes full, true and plain disclosure of all material facts in respect of the offering of the securities referred to above as required by the "Securities Act" of the Province of British Columbia, and there is no further material information applicable other than in the financial statement and reports where required.

DATED THIS fourth day of May A. D. 1966.

JAMES STEWART McKECHNIE  
DONN SPANKES  
WILLIAM CAMPBELL

## AUDITORS' REPORT

The Shareholders,  
Annis Mines Ltd. (Non-Personal Liability),  
Kamloops, B. C.

We have examined the balance sheet of Annis Mines Ltd. (Non-Personal Liability) at February 28, 1966 and the statement of exploration, development and administrative costs for the period ended on that date. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion the accompanying balance sheet and statement of exploration, development and administrative costs present fairly the financial position of the company as at February 28, 1966, and the results of its operations for the period ended on that date, in accordance with generally accepted accounting principles.

Kamloops, B. C.  
March 28, 1966.

MOEN, McAUSLAND & CO.  
Chartered Accountants.

Exhibit "A"

ANNIS MINES LTD.  
(NON-PERSONAL LIABILITY)

BALANCE SHEETAS AT FEBRUARY 28, 1966

<u>ASSETS</u>		
<u>CURRENT ASSETS</u>		
Cash in bank	\$133.04	
Prepaid finance charges	<u>233.00</u>	\$366.04
<u>FIXED ASSETS, At Cost</u>		
Automobile	200.00	
Truck	3,312.00	
Buildings	513.19	
Light plant	<u>2,355.90</u>	6,381.09
MINERAL CLAIMS, At Cost (Note 1)		375,000.00
EXPLORATION, DEVELOPMENT AND ADMINISTRATIVE COSTS, Exhibit "B"		53,116.51
INCORPORATION COSTS		<u>1,596.25</u>
		<u>\$436,459.89</u>

LIABILITIES AND SHAREHOLDERS' EQUITY

<u>CURRENT LIABILITIES</u>		
Accounts payable	\$2,137.39	
Conditional sales contract	1,011.40	
Due to a Director	<u>2,331.30</u>	\$5,480.09
<u>SHAREHOLDERS' EQUITY (Notes 1, 2 and 3)</u>		
<u>SHARE CAPITAL</u>		
Authorized: 2,000,000 shares of no par value		
Issued:		
For mineral claims - 750,000 shares		375,000.00
For cash - 394,298 shares	\$54,931.80	
<u>Less: Portion unpaid - covering</u>		
250 shares	<u>50.00</u>	54,881.80
Subscribed but not issued: 5,490 shares		<u>1,098.00</u>
		<u>430,979.80</u>
		<u>\$436,459.89</u>

Signed on behalf of the Board:

J. S. McKechnie \_\_\_\_\_ Director

Donn Spankes \_\_\_\_\_ Director

This is the balance sheet referred to in our report dated March 28, 1966.

MOEN, McAUSLAND & CO.  
Chartered Accountants.

250,000 shares 0.50

EXHIBIT "B"ANNIS MINES LTD.(NON-PERSONAL LIABILITY)STATEMENT OF EXPLORATION, DEVELOPMENT AND ADMINISTRATIVE COSTSFOR THE PERIOD FROM MARCH 16, 1965 TO FEBRUARY 28, 1966

	Balance at March 15, 1965	Expenditures March 16, 1965 to February 28, 1966	Totals to February 28, 1966
<b>EXPLORATION AND DEVELOPMENT COSTS</b>			
Camp expense		\$4,071.27	\$4,071.27
Contract labour and wages		9,097.34	9,097.34
Diamond drilling		10,457.00	10,457.00
Engineering fees and assays	\$947.35	1,062.00	2,009.35
Mining and assessment fees	180.00	227.21	407.21
Equipment repairs and rentals		2,405.74	2,405.74
Site preparation and surface stripping	3,270.80	2,722.58	5,993.38
Truck and automobile expenses	864.22	1,797.78	2,662.00
Workmen's compensation and unemployment insurance		587.54	587.54
	<u>5,262.37</u>	<u>32,428.46</u>	<u>37,690.83</u>
<b>ADMINISTRATIVE COSTS</b>			
Bank charges	19.02	65.22	84.24
Director's salary	2,000.00	5,750.00	7,750.00
Finance charges (on purchase of truck) (Note 4)	142.00	246.00	388.00
Insurance	90.00		90.00
Legal and accounting	1,035.25	2,045.77	3,081.02
Office expense	71.18	102.65	173.83
Printing and business promotion	705.37	1,415.56	2,120.93
Telephone and telegraph	194.45	719.83	914.28
Travel and lodging		498.38	498.38
Trust fees		325.00	325.00
	<u>4,257.27</u>	<u>11,168.41</u>	<u>15,425.68</u>
<b>TOTAL EXPLORATION, DEVELOPMENT AND ADMINISTRATIVE COSTS, Exhibit "A"</b>	<u>\$9,519.64</u> (Note 4)	<u>\$43,596.87</u>	<u>\$53,116.51</u>

ANNIS MINES LTD.(NON-PERSONAL LIABILITY)NOTES TO FINANCIAL STATEMENTSFEBRUARY 28, 1966

**Note: 1.** The 750,000 shares issued for mineral claims are required to be held in escrow subject to release only with the consent of the Superintendent of Brokers for the Province of British Columbia.

**Note: 2.** During the eleven and one-half months period ended February 28, 1966, the company issued 226,510 shares and had subscription for a further 5,490 shares. The latter shares were allotted on March 2, 1966 but cash was received by February 28, 1966, and the shares are recorded in the balance sheet as subscribed but not issued. The change in share capital since March 15, 1965 and the related consideration received is as follows:

	Number of Shares	ISSUED FOR:		Total
		Cash	Mineral Claims	
<b>ISSUED TO MARCH 15, 1965</b>				
- for cash	162,298	\$11,229.80		\$11,229.80
- for mineral claims	750,000		\$375,000.00	375,000.00
	<u>912,298</u>	<u>11,229.80</u>	<u>375,000.00</u>	<u>386,229.80</u>
<b>ISSUED FROM MARCH 16, 1965 TO FEBRUARY 28, 1966</b>				
- for cash (see note 3) @15¢ per share	32,000	4,800.00		4,800.00
@20¢ per share	194,510	38,902.00		38,902.00
<b>SUBSCRIBED BUT NOT ISSUED @20¢ per share</b>	<u>5,490</u>	<u>1,098.00</u>		<u>1,098.00</u>
	<u>232,000</u>	<u>44,800.00</u>		<u>44,800.00</u>
<b>TOTALS TO FEBRUARY 28, 1966</b>	<u>1,144,298</u>	<u>\$56,029.80</u>	<u>\$375,000.00</u>	<u>431,029.80</u>
Less: Amount due from subscriber				50.00
				<u>\$430,979.80</u>

**Note: 3.** Under an Agreement dated April 22, 1965 the company granted an option to Mr. Malcolm Mooney to purchase 4,000 shares per month for two years at the price of 15¢ per share, in return for geological services, and also an option to purchase a further 4,000 shares at 15¢. The total number of shares subject to this option is 100,000, 32,000 of which have been taken up as of February 28, 1966 for a total consideration of \$4,800.00 (see note 1, above).

**Note: 4.** Total exploration, development and administrative costs at March 15, 1965 were restated and reduced by \$476.00 which covered finance charges prepaid at that date.

**Note: 5.** The Department of Mines and Resources for the Province of British Columbia authorized by Order In Council approved on November 16, 1965, \$3,000.00 be paid to the company for assistance in construction of the road to Annis Mines. This amount was received by the company in March, 1966 and represents one-half of the mine road cost.

Report  
on the  
Annis Group of Mineral Claims  
Sicamous, B. C.

Introduction

An examination was made of the Annis and Lakeview mineral claims, by the writer, Fred J. Hemsworth, P. Eng., on November 14, 1964. Mr. John W. Scott accompanied me to the Property and his assistance was most helpful.

The report is made at the request of Mr. Donn Sprakes, secretary-treasurer of Annis Mines Ltd., 1413 Tranquille Road, Brocklehurst, Kamloops, B. C. It purports to describe the mineral showings and to make recommendations for further development.

Summary

The Annis Property is conveniently situated close to railroad and highway, on the south side of Shuswap Lake, 75 miles east of Kamloops, B. C.

The economic minerals consist of lead, zinc and copper sulphides carrying some silver, and occurring as bedded replacements in Precambrian mica schists and quartzites. The showings occur sporadically over a distance of one mile and a difference in elevation of 900 feet.

The property has been developed by bulldozer stripping and trenching and two short adits.

On the upper section sampling by Scott and Hemsworth indicate an average grade of: silver, 1.3 ounces per ton; lead, 5.8 percent; copper, 0.4 percent and zinc, 2.1 percent, across widths from 2 to 12 feet.

An expenditure of \$25,000.00 is recommended for the first stage of exploration. The program should consist of a geophysical survey, further bulldozing and diamond drilling.

Location and Access

The Annis Property is located on the south side of Shuswap Lake, 75 miles east of Kamloops, and five miles west of Sicamous in south-central British Columbia. The Trans-Canada Highway (No. 1) and the main line of the Canadian Pacific Railway transect the lower portion of the claims. The upper portion of the claims is readily accessible by two miles of logging road.

Water is available from Shuswap Lake and from small creeks on the claims. Mine timber is plentiful from the forested hillside or may be purchased from sawmills in the area.

A railway siding is conveniently situated at the foot of the hill. Several years ago crude mica was mined from these claims, and shipped from this siding.

Elevations range from lake level of 1,142 feet to the top of the hill at about 2,000 feet above sea level.

The claims were formerly known as the Tongo mine.

The Annis property is ideally situated with facilities to insure low development and mining costs.

Property

The Annis Mines Limited property consists of 17 located mineral claims. These are Annis No. 2, Annis Nos. 5 - 12 inclusive, and Lakeview Nos 1 - 8 inclusive. Title to the claims was not investigated.

Geology

The underlying rocks are classified by #Dr. A. G. Jones as the Mara Formation which is part of the Shuswap series of Precambrian Age. They consist of alternating bands of quartzites and mica schists with some chloritic schist. The formations strike east-west and the dip varies between 30 degrees and 60 degrees to the north. There is little evidence of folding or shearing, and both walls of the mineralized zone have the same apparent dip. However, the zone may represent the residue of a recumbent fold, the top of which has been removed by erosion. A line of weakness or fracture generally develops along the crest of these anticlinal folds. If this hypothesis is correct, then the fracture would have provided a passageway for the mineralizing solutions containing the ore sulphides.

The sulphides of lead (galena), zinc (sphalerite), iron (pyrite and pyrrhotite) and copper (chalcopyrite) replace both the biotite schist and quartzite, but appear to favor the micaceous formation. A small amount of quartz is present and some chlorite.

The mineralization occurs as lenses, blebs, and disseminations through the zone across a maximum width of about 12 feet. There is one fairly continuous bed and other scattered showings to indicate either a second parallel mineralized formation or faulted segments of the main bed. Further work will be required to clarify the picture.

Workings

On the upper or easterly part of the zone, stripping by bulldozer and trenching by drilling and blasting has opened up several pits along a distance of 700 feet, and a difference in elevation of 200 feet. The reader is referred to the map for a plan of the workings and the assay results of samples from the various pits. Not shown on the plan are some weak mineral showings and an adit near the railway, on the line of strike and about one mile to the west. It is reasonable to assume that similar mineralization may occur between these showings, and that economic concentrations may be irregularly spaced at intervals along the zone.

The sulphide replacement mineralization is exposed in pits D, C D,

#Geological Survey of Canada-Memoir 296-Vernon map area-A. G. Jones.

BC, B, E, A, F, G, H and J. An adit was driven by Tongo Mines for a distance of 140 feet with the intention of intersecting the zone exposed at "A." Apparently the operators made no allowance for the displacement due to the normal dip and the adit parallels the mineralized zone. The face of the adit turns north and if continued north should intersect the sulphide band within 50 feet.

#### Samples and Assays

Location of the samples, and the assay results are shown on the surface plan and are listed below:

Samples by F. J. Hemsworth, P. Eng.

No.	Place	Width	Ag ozs/ton	Pb %	Zn %	Cu %
1	"CD"	8'	1.4	6.1	0.3	0.4
2	"C"	11'	Tr.	4.1	Tr.	0.4
3	"BC"	11'	1.1	3.6	1.7	0.4
4	"G"	7'	0.7	1.1	Tr.	0.3

Samples taken previously by John W. Scott, Mining Engineer:

No.	Place	Width	Ag ozs/ton	Pb %	Zn %
3901	"D"	4'	4.2	6.9	3.4
3902	"C"	4'	0.8	7.2	4.3
3903	"A"	Grab	1.9	13.0	2.3
998	"A"	7'	1.6	5.3	0.5
999	"B"	6'	0.6	2.7	3.7
3917	"E"	Grab	1.5	9.1	3.5
3918	"F"	2'	Tr.	4.2	2.1
3919	"G"	4'	1.4	2.2	4.3
3920	"J"	4'	1.4	10.5	0.8

A spectographic analysis showed lead, zinc and copper, a small fraction of one percent of bismuth, and a very small fraction of one percent of tin and cadmium. Radioactivity was no greater than that occurring normally in rocks.

#### Economic Considerations

Gross value of the assay arithmetic average of the ore can be calculated to \$26.32 per ton. However, gross values are misleading and of no economic significance.

Net value or net smelter return values give a more realistic valuation of the ore. This is the net value of the ore at the mine after subtracting mill losses, freight treatment and smelter deductions. However, until more testing is done the percentage recovery of the various metals can only be approximated. Net value is estimated at \$14.60 per ton, which puts the property into the medium-grade ore class. From this figure, costs of mining, milling, development and overhead must be subtracted to obtain an estimate of profit or loss.

It is apparent that a moderately large tonnage must be developed in order that operating costs may be kept to a reasonable figure and a profit realized.

The possibility that mica may be produced and sold as a by product must not be overlooked.

#### Recommendations

It is recommended that about \$25,000.00 be spent on geophysical surveys, stripping and diamond drilling.

Since the ore contains heavy concentrations of galena and pyrite, both good conductors of electrical current, an electromagnetic (E.M.) survey should indicate ore concentrations as conductors. The Magniphase, a horizontal type E.M. unit is suggested. This instrument could be tested along the known ore zone and if satisfactory readings are obtained, the survey enlarged.

A grid system should be established by laying out an east west base-line parallel to the strike of the mineralization for about two miles, with crosslines flagged every hundred feet for one thousand feet north and south of the baseline. The grid lines will total over 40 line miles. Cost of the line cutting, and geophysical work is estimated at \$10,000.00.

The balance of the recommended expenditure of \$15,000.00 will be required for preliminary investigation of the conductors or anomalies, indicated by the geophysical survey, by bulldozer stripping and diamond drilling. After \$25,000.00 is expended, the results should be reviewed. If favorable results are obtained by this work, considerable more monies will be required for additional drilling and underground development.

#### Conclusion

The Annis Mines property is ideally situated. Initial work has outlined interesting silver, lead, zinc, copper values across mining widths and over considerable distances. The probability of developing a moderately large tonnage of commercial grade merits investigation.

Respectfully submitted,

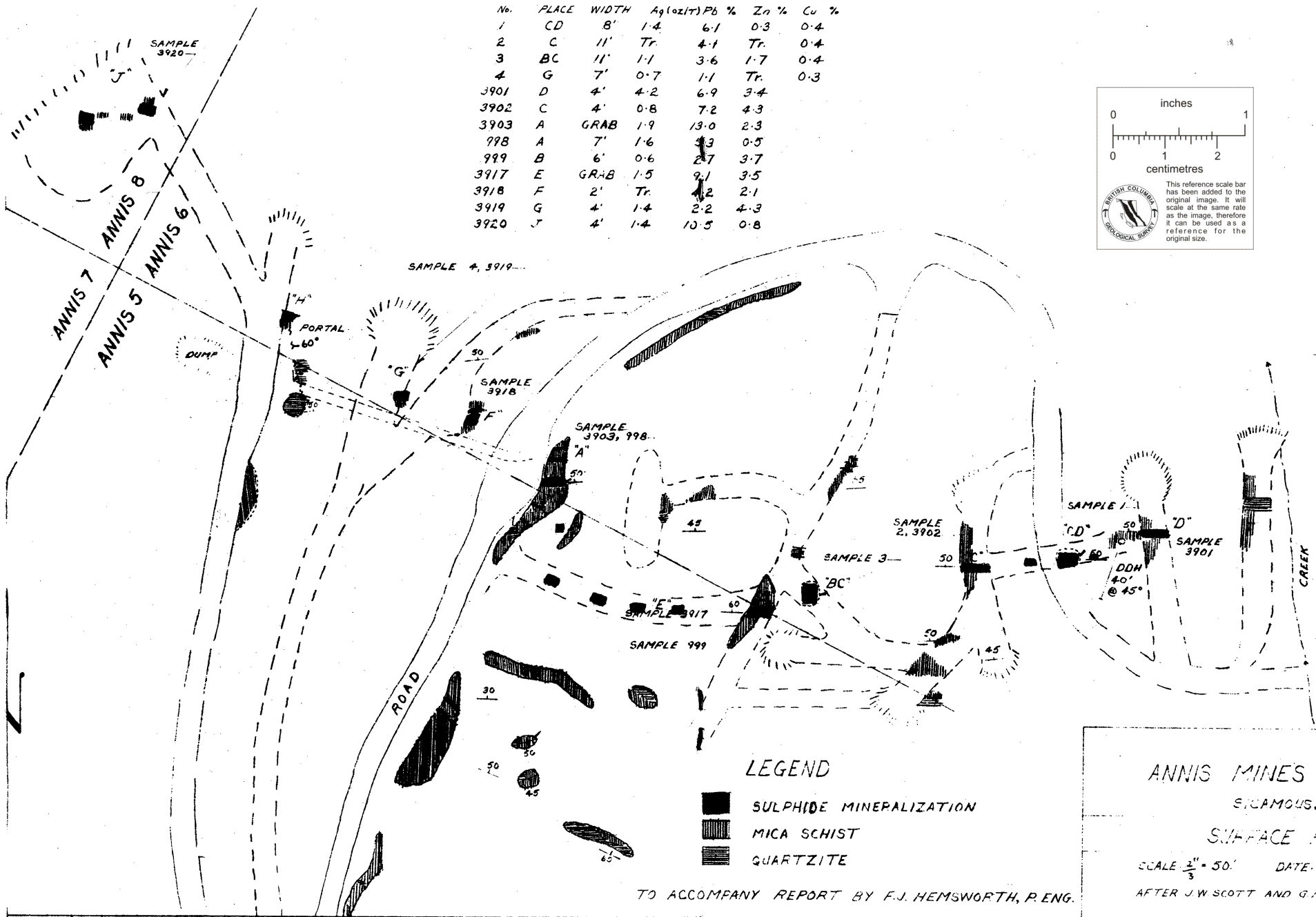
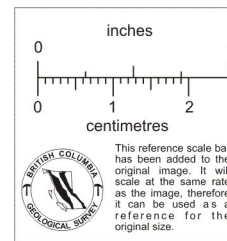
F. J. HEMSWORTH, P. ENG.  
Consulting Mining Engineer.

November 23, 1964.



# PROPERTY FILE

No.	PLACE	WIDTH	Ag(oz/Tr)	Pb %	Zn %	Cu %
1	CD	8'	1.4	6.1	0.3	0.4
2	C	11'	Tr.	4.1	Tr.	0.4
3	BC	11'	1.1	3.6	1.7	0.4
4	G	7'	0.7	1.1	Tr.	0.3
3901	D	4'	4.2	6.9	3.4	
3902	C	4'	0.8	7.2	4.3	
3903	A	GRAB	1.9	13.0	2.3	
998	A	7'	1.6	4.3	0.5	
999	B	6'	0.6	2.7	3.7	
3917	E	GRAB	1.5	9.1	3.5	
3918	F	2'	Tr.	4.2	2.1	
3919	G	4'	1.4	2.2	4.3	
3920	J	4'	1.4	10.5	0.8	



## LEGEND

- SULPHIDE MINERALIZATION
- MICA SCHIST
- QUARTZITE

ANNIS MINES PROPERTY

SICAMOUS, B.C.

SURFACE PLAN

SCALE  $\frac{2''}{3} = 50'$  DATE: NOVEMBER 1964

AFTER J.W. SCOTT AND G.M. GIBSON.

TO ACCOMPANY REPORT BY F.J. HEMSWORTH, P. ENG.

Certificate

I, Fred J. Hemsworth, 4606 West 9th Avenue, Vancouver 8, B. C. am a graduate in Mining Engineering of the University of British Columbia (1935), and have been a member of the Association of Professional Engineers since 1947. I have practised as a Consulting Mining Engineer with an office at 850 West Hastings Street since 1951.

A personal examination was made of the Annis and Lakeview mineral claims on November 14, 1964, for Annis Mines Limited, Kamloops, B. C.

I do not own any shares, directly or indirectly, in the company. I have no interest in the property, and have not been promised any.

F. J. HEMSWORTH, P. ENG.  
Consulting Mining Engineer.

Sherwin F. Kelly  
Report to Annis Mines Ltd.

Table of Contents

Location and access	18
Claims	18
Topography, Timber	18
Water, Climate	19
Labour	19
Geological setting	19
Mineralisation	19
Exploration & development	20
Development & equipment	23
Summary and conclusions	24
Recommendations	24
Map	26
Certificate of competency	28

## REPORT TO ANNIS MINES LTD. ON ITS CLAIMS NEAR SICAMOUS, B. C.

### LOCATION AND ACCESS.

The 38-claim group of mineral claims held by Annis Mines Ltd., is located about four miles southwest of Sicamous, in south-central British Columbia. The co-ordinates are approximately longitude 119° 3' west and latitude 50° 47' north. It is in the Kamloops Mining Division.

Access is from the Trans-Canada highway, which passes through the northern part of the group. About 5 miles southwest from Sicamous, along the Trans-Canada highway, there is a turnoff to the south, where a dirt road winds up the mountain side for a mile and a half, to the camp. It is negotiable by car, and was considerably improved this last winter.

The camp is located near the top of the Larch Hills, and the claims cover the top of this mountain. They stretch northwesterly down the opposite slope to Mara Lake. The transcontinental line of the Canadian Pacific Railway runs through the property, near the shore of Salmon Arm.

### CLAIMS

The group consists of 38 claims:-Annis #2 and #5-12, and Lakeview #1-8, as set forth in the report by Fred J. Hemsworth, dated Nov. 23, 1964. Since then, the company has staked the group Dawn #1-21, as follows:-

Claim	Record No.	Valid to
Dawn Nos. 1-4	48161/64	Dec. 15, 1966
" " 5-8	48911/12	Mar. 19, 1967
" " 7	49188	Apr. 8, 1966
" " 8-9	50816/17	Jul. 9, 1966
" " 10-13	50850/53	Jul. 20, 1966
" " 14-21	51547/54	Sep. 8, 1966

The validity dates for the other claims, are:-

Claim	Valid to
Annis No. 2	Jul. 23, 1966
" " 5-6	Jul. 18, 1966
" " 7-12	Jul. 26, 1967
Lakeview 1-2	Jul. 31, 1966
" 3-4	Aug. 25, 1966
" 5-6	Nov. 3, 1966
" 7-8	Nov. 13, 1966

### TOPOGRAPHY, TIMBER.

The camp, and existing workings, are near the top of Larch Hills, where the terrain is fairly flat. The slopes down to Salmon Arm and to Lake Mara, are moderately steep. This presents the advantage, however, of being able to drive tunnel adits at various elevations on the hillsides and thus avoid the expenses of shaft sinking and of shaft hoisting. The mountain top is around 3,500 feet elevation and the lake level is about 1,140 feet; this presents the possibility of developing 2400 feet of backs from adit drifts.

The mountain is well timbered and logging has been conducted here in the past. Ample timber is therefore available for mining purposes.

### WATER, CLIMATE.

On the hillsides and hilltop, there are only small streams and ponds. This provides water for drilling, but for the operation of a mill, water would have to be drawn from the lake.

The climate is not rigorous. Winters are moderately cold, but with considerable snow, which may lie three or four feet deep. Summers are not excessively hot. Year round operation presents no difficulties.

### LABOUR.

Some labour is available in Sicamous. If this labour pool is not large enough, that at the town of Salmon Arm, on the highway only twelve miles to the southwest, should provide adequate help.

### GEOLOGICAL SETTING.

A large part of the claims is underlain by the Mara Formation of the Precambrian Shuswap Terrane. In his report, "Vernon Map Area" (Memoir 296, Geological Survey of Canada, 1959) A. G. Jones characterises it as consisting ".....predominantly of phyllites and mica schists, but volcanic and calcareous members are also plentiful.....the formation can be regarded as an argillaceous transition....." between the underlying, principally volcanic Tasikom formation and overlying, largely calcareous Sicamous formation.

Within the working area as thus far defined, the rocks consist of alternating, comparatively thin bands of quartzite and quartz-mica schist. The quartz-mica schist is largely a biotite schist, but bands do occur where the mica is entirely muscovite or muscovite-sericite. In places this becomes an almost pure muscovite or sericite schist. The various rock bands are from a few inches to a few tens of feet thick.

The prevailing formational strike in the working area, is NW to W. The dip is NE, usually about 45°. Faults are evident, and the dip occasionally diverges from the direction and angle noted, indicating that drag folding may have occurred in places.

### MINERALISATION.

The metallic minerals consist of galena, sphalerite, minor chalcopyrite, a little pyrite and considerable pyrrhotite. They are found in bands of biotite schist where they have replaced the ferromagnesian to a varying degree, culminating in a complete replacement and presenting a solid mass of sulphides. On occasion, separate bands appear, in contact, with one consisting almost entirely of pyrrhotite, but nevertheless sometimes carrying fine pin-point disseminations of galena, and the adjoining one consisting largely of galena. Pyrite normally occurs as crystals scattered through the pyrrhotite.

The principal values are in lead. Zinc occurs in lesser quantities. Copper in minor, trace to 0.75% and probably averaging no more than 0.1%. Silver is variable, trace to 4.8 ounces per ton; in the well mineralised sections, it would probably run about half an ounce to the ton, on the average. Gold is negligible.

The sulphide bands are found, as above noted, in beds of biotite schist, usually with quartzite, or at least less schist walls. These bands vary from a few inches in width, to ten or twelve feet. Sometimes a closely spaced series of replaced bands will occur in an over-all width of ten or more feet.

Occasional, granitised zones are encountered, and where mineralised, they are well mineralised. This would indicate that intrusive activity has occurred not too far away. If the source could be traced, it might lead to more intensely mineralised zones.

#### EXPLORATION AND DEVELOPMENT.

Mineral showings exposed in the early trenches were sampled by F. J. Hemsworth, John Scott and G. M. Gibson. The exposures in the trenches were described and the assays quoted, in the report by F. J. Hemsworth, P. Eng., dated November 23, 1964 and published in the Annis Company Prospectus issued April 23, 1965. That information will not be repeated here, but the assays are sketchily summarised on the map accompanying this present report.

The map also shows the location of an old tunnel, driven some years ago, which was located too far in the footwall of the veins to encounter any mineralisation. It now figures importantly in the program, and will be referred to later in the report.

The next step in the exploration program was a geophysical survey by the spontaneous polarisation method, which I personally carried out. This technique depends on detecting and measuring, at the ground surface, the weak electrical currents which are spontaneously generated in bodies of metallic sulphides. That is, a body of metallic sulphides acts like a weak, natural battery buried in the ground.

Three important indications were obtained in the course of this work.

- (1) A group of anomalies developed in the area 500 to 1,000 ft. south of the first trenches, opening up the possibility that a whole, new area of mineralisation is awaiting exploration in that vicinity.
- (2) A long profile probed far to the southwest of the camp area, and encountered some strong anomalies about three thousand feet out in that direction. Attempts at bulldozing these, late in the season, failed to reach bedrock. Additional geophysical work is necessary here, to make a proper evaluation of these indications, and to decide on further trenching.
- (3) Geophysical profiles northwest of the trenches indicated that the mineralised veins continue in that direction. Strong anomalies were recorded at the northwest boundary of the survey area, so the zones of reaction are still open to the northwest. Further work is needed to trace them down the hill towards the lake.

Some of the anomalies mentioned under (1) above, were trenched in the autumn, 1965. The three most southern trenches, Nos. 2, 3 & 6, uncovered a series of veins possibly lying in the same east-west formation; see the accompanying map. At the east end, a vein 4 1/2 feet wide was blasted open, assaying 5.4% combined lead and zinc, and 2.5 ounces silver per ton. Two hundred feet west, three narrow veins were uncovered in Trench #2; they are 1 ft. to 3ft. wide, assaying 3% to 5.5% combined lead and zinc, with silver in the range of 1/2 to 3/4 ounces per ton. Another hundred feet west three spots of mineralisation were uncovered in the bottom of Trench #6; they will have to be blasted to determine their size. A composite grab sample from the three exposures assayed 16.6% combined lead and zinc, and 4.8 ounces of silver per ton.

These showings require further bulldozing and blasting along strike to learn the length of the vein zone, and drilling to determine its extent in depth.

Four hundred feet north of the showings just described, Trench #8<sup>5</sup> revealed a couple of small veins. Further opening up is required, as they were exposed only a foot or two below surface. Grab samples assayed 1.5% to 2.5% combined lead and zinc, and low silver. More extensive investigation is required along this zone. } 32L/  
NW-24

The bulldozing of three trenches at the northwest edge of the survey area, turned up mineralisation in two of them. Drilling in this area was more informative and more interesting, however.

Drill holes #13 and #14 were drilled southwesterly under a strong anomaly, but encountered no sulphides. A wide band of sericite-muscovite schist was intersected, however, and investigations are in progress to see if it offers commercial possibilities. The mineralisation presumably responsible for the anomaly, may lie a short distance to one side of the actual profile line, and further study is required here.

Three hundred feet to the northeast, drill holes #11 & #12, put down to check a strong anomaly in that vicinity, intersected a zone of mineralisation 12 feet thick, in which individual bands three to four feet wide, assayed from 0.5% to 2.9% combined lead and zinc. Two veins deeper in the holes yielded assays up to 5.9% lead and zinc, but the veins are only 3/4 of a foot wide. } 32L/NW  
-23

Four hundred feet to the southeast, DDH #9 was drilled at a flat angle to the formational strike, so the mineralised intersections measure more than their true widths. This hole cut three mineralised zones, 4 ft. to 14 1/2 feet in core length, in which individual bands assayed from 1.25% combined metals across 2 ft., to 4.2% combined lead and zinc across 4 ft. Hole #10, drilled under this one, did not cut the same zones. The first hole showed evidence of strong faulting, and it is believed the second hole drilled under the fault, and hence did not intersect the zones occurring above the fault.

The concept of faulting in this area, is supported by the fact that the geophysical reactions fell off notably in this vicinity, and that the drill holes #6, #7 & #8 intersected only minor mineralisation.

Three drill holes went down to cut under the surface showings in the trenches near the old adit. DDH #3, #4 & #5 encountered irregular mineralisation, possibly a result of faulting producing discontinuities from one hole to another. DDH #3 cut a one-foot section assaying 2.19% lead, 3.55% zinc and one ounce per ton in silver. A second intersection two feet wide yielded 1.65% lead and 0.25 ounces per ton in silver. DDH #4 cut 10 1/2 feet assaying 0.59% lead and 0.30 ounces per ton in silver. In DDH #5, there were three intersections; one, of a foot and a half, yielded 2.45% lead and 0.80 ounces per ton in silver; a second, of five feet, assayed 0.75% lead and 0.65 ounces per ton in silver; the third, also five feet, assayed 0.86% lead and 0.60 ounces per ton in silver. } 32L/  
NW-21

The plane of these holes passed close to the end of the old tunnel, and the intersections in the holes provided the stimulus to cross cut from the end of the adit and investigate the formations encountered in the drilling. The results are set forth later in this report.

Two hundred and fifty feet easterly, the first holes #1 & #2 were spotted to drill under showings in trenches nearby. DDH #1 at 45°, intersected four mineralised zones from 1 1/2 to 11 feet wide. The narrow one assayed 1.07% lead and 0.55 ounces per ton in silver. The other three were 5, 8, and 11 ft. wide, with values between 0.6% and 0.9% lead, with silver between 0.4 ounces and 0.8 ounces per ton. Zinc was negligible. These four zones lay between 35 and 75 feet depth in the hole.

The second hole, at -70° and under the first, went through seven mineralised zones between 24 1/2 and 88 1/2 feet depth. These ranged in thickness from 1 1/2 feet to 6 feet, for a total thickness of 24 1/2 feet. The four narrower ones (1 1/2, 2, 2 & 3 ft. thick) gave assays between 0.84% and 5.13% lead, 0.05% and 1.45% zinc, with silver between 0.45 ounces and 1.1 ounces per ton. The three wider zones (4, 6 & 6 ft. wide) assayed from 1% to 2.2% lead, copper up to 0.24%, zinc from trace to 0.13%, and silver 0.7 to 0.8 ounces per ton.

The findings in these holes provide the incentive to extend the underground development, mentioned above. As the cross-cut reaches the vein zones cut in #3 to #5, it should be turned to drift east and west along the favourable zone. About 150 ft. west it will emerge on the hillside. Three hundred and fifty feet east it will go through the region of DDH #1 & #2 and come to a fault, evident from the surface showings and geophysical indications, which cuts off this mineralised zone in that direction. Hence, 500 feet of drifting are envisaged.

Drill Holes #1 to #7 were spotted by Malcolm Mooney, consulting geologist, who has also performed other services for the company.

The cross-cut from the old tunnel, had progressed 75 ft. northeasterly as of March 15, 1966, and the face was still in mineralisation. About 23 feet from the start of the cross-cut, sampling of the west wall was begun, in the dense mica schist, contorted in places and carrying discontinuous bands of quartzite up to three or four inches wide. Streaks of sulphides occur in this schist, becoming more numerous towards the north. They are predominantly galena, and measure several inches in thickness. At 46 feet, a band of white quartzite forms the hanging wall of this formation. It is massive, and carries occasional specks of pyrrhotite. At 57 feet it forms the footwall of a more heavily mineralised formation, in which pyrrhotite and galena have largely replaced the schist. This was sampled, to the face, at 75 ft.

These bands of mineralised schist and quartzite strike N 80 E and dip northerly at 45°. The angle of the drift with the strike, and the dip, results in a true width of the formations of about 0.6 the distance measured horizontally along the walls. Thus, the sampled interval of 18 feet between the quartzite and the face, in heavily mineralised rock, represents a true width of 10.8 feet. As noted, the face was still in mineralisation, and chalcopyrite was more prominent in this section than had previously been noted in trenches of drill cores. Assays are awaited on the samples taken in the cross-cut.

The two mineralised zones encountered in this cross-cut, correlate with the intersections in DDH #3, except that the showings in the walls of the cross-cut appear to be more continuous and better mineralised, than the sections of the core which were in sulphides.

#### DEVELOPMENT AND EQUIPMENT.

Surface development has been described above in this report. It has consisted of:-

- 2,137 ft. of drilling with AX equipment
- 1,000 ft. of bulldozer trenching (app.)
- 100 ft of blasting rock trenches (app.)
- geophysical survey of an area about 1,000 ft. by 1,800 ft.

In addition, it should be noted that the access road has been improved; the road over which water must be hauled for drilling, has been improved; the camp has been winterised so work could continue this past winter; additional buildings have been erected, including one to serve as an office and to provide facilities for splitting and storing core.

Underground development has consisted of rehabilitating the old tunnel, driving a cross-cut at about right angles to the tunnel, for a distance of 75 ft. from the tunnel face; laying rail in cross-cut and tunnel, and to a dump about 100 ft. from the portal. The cross-cut is being continued until it runs out of mineralisation.

The principal items of equipment owned by the company, are, for surface work:-

- 1 Ford pick-up truck, 1964 model.
- 1 1250 watt electric light plant.
- 1 jackhammer.
- 1000 ft. of 2" heavy industrial plastic pipe.
- 1 power saw.
- 100 ft. 1" air hose.
- 1 TD 18 bulldozer, which it has the use of, but does not own.  
The bulldozer belongs to Donn Spankes, Secy. -Treas. of the Annis Mines Ltd.
- 1 camp, capable of accomodating 8 men, and including cook-house and building for office and storage of core.

for use on surface or underground:-

- 1 750 watt electric light plant.
- 1 105 LeRoi air compressor.

for underground use:-

- 1 jackhammer.
- 1 jack leg.
- 700 ft. of 16 lb. rail
- 300 ft. of 2 in. iron pipe.

In addition, the company has the usual complement of handtools and of camp equipment.

PROPERTY FILE

#### SUMMARY AND CONCLUSIONS.

Preliminary exploration by trenching revealed striking lead mineralisation in the schists and quartzites of the Precambrian Shuswap Terrain. Galena, some sphalerite, minor chalcopryrite together with pyrrhotite and pyrite occur as heavy sulphide concentrations, replacing or partially replacing some beds of quartz-biotite schist in the Mara Formation, on the Larch Hills five miles southwest of Sicamous, B. C. The formational strike is nearly east-west, and the dip is northerly about - 45°.

A spontaneous polarisation survey indicated new zones of mineralisation, south and southwest of the original discoveries. It also showed that the mineralised zone already explored, could be expected to continue to the west and northwest, outside of the survey area.

Bulldozing and blasting rock trenches on the geophysical anomalies in the new area to the south, uncovered a number of promising veins.

Diamond drilling under the veins exposed in the earlier trenching, and in the northwest under the geophysical anomalies, also revealed mineralised zones carrying values of definite interest, over good widths.

Intersections of considerable promise, were found in the cores of the holes which passed near the face of the old tunnel adit. In consequence, a cross-cut was driven from the tunnel heading, and encountered two mineralised zones. The zones are each about ten feet wide, separated by a band of quartzite some six or seven feet thick. Both show streaks of galena mineralisation, and the zone near the face is heavily mineralised with pyrrhotite, carrying galena and chalcopryrite. The face of the cross-cut is still in the mineralisation. The two zones have been sampled, and assays are awaited.

Exploration to date has shown that lead mineralisation occurs in numerous places on Annis ground, under circumstances which warrant a belief that widths and values of commercial significance will be found. Geophysical results already indicate that the area of mineralisation is more widespread than originally realised, and several anomalies await investigation. Extension of the geophysical survey is indicated, with investigative work on the anomalies encountered, as well as on those awaiting study from the first survey. At the same time underground work should be continued to determine in the cross-cut, and in the drill holes.

#### RECOMMENDATIONS.

To investigate the newly indicated mineralisation south and southwest of the first working area, and the extension northwesterly and westerly of the mineralisation in the first trenches, further geophysical work should be done. This should be conducted on the northwest and southwest sides of the present survey area.

The veins already uncovered south of the first area trenched, and west and northwest of the latter, require further investigation. Additional bulldozing will reveal surface traces and continuities, and further drilling will serve to obtain down-dip data. Some rock trenching and blasting will doubtless be required, as well.

Anomalies revealed in the additional survey work will also require bulldozing and drilling. Some anomalies in the first survey are awaiting surface stripping and possible drilling, which should be done this summer.

A drift should be run east and west, off the end of the cross-cut which has been driven northerly from the face of the old tunnel. This will explore the intersected veins along their strike, from the ground surface on the hillsides, for a distance of 500 feet easterly to the fault which cuts off this vein system, in the vicinity of Trench D.

To carry out this recommended program, the following expenditures are suggested:-

Drifting	\$20,000
Diamond drilling	30,000
Bulldozing	6,000
Rock trenching	5,000
Assaying	1,000
Laying out geophysical grid	2,000
Geophysical survey	5,000
Purchase of supplies & equipment	3,000
Expansion of camp	1,000
Loss on cookhouse	3,000
Engineering & Supervision	4,000
Reserve for contingencies	10,000
	<hr/>
	\$90,000

To the above, must be added administration, office expenses, legal and audit fees.

The recommended program, requiring about four months, should be carried out under the supervision of a competent geologist or engineer.

The suggested work should result in developing the existing showings, to the point where it becomes possible to evaluate their economic significance. It should serve to delineate further those areas wherein new indications have been found, and determine their significance. It will also start the exploration of more outlying areas, where it is reasonable to expect additional indications of mineralisation will be found. The work to date has demonstrated the occurrence here of mineralisation which is potentially commercial, and there is every reason to hope that it will be proven to be exploitable.

Respectfully submitted

Sherwin F. Kelly  
Geologist & Geophysicist

Adelphi Hotel  
P. O. Box 325,  
Merritt, B. C.  
March 19, 1966.

## CERTIFICATE OF COMPETENCY

I, Sherwin F. Kelly, residing at the Adelphi Hotel in Merritt, B. C., certify that:-

I am a graduate in engineering from the University of Kansas, where I was awarded the degree of B. Sc. in Mining Engineering, in 1917.

I followed post-graduate courses in geology and mineralogy for five years, in France at the Sorbonne, Ecole des Mines and Museum d'Histoire Naturelle, and at the University of Kansas and the University of Toronto.

I have practised as a geologist and geophysicist in North, Central and South America,, and the Caribbean, since 1921.

This report on the Annis property is based upon the report by Fred Hemsworth dated Nov. 23, 1964, and published in the Annis Mines prospectus of April, 1965; upon data contained in Memoir 296 of the Geological Survey of Canada, "Vernon Map Area, British Columbia", by A. G. Jones, 1959; and upon close association with the exploration program on the property since July, 1965.

I have no interest, direct or indirect, in the property or securities of Annis Mines Ltd., nor have I been promised any.

Respectfully submitted

Sherwin F. Kelly  
Geologist & Geophysicist.

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