

TO DEPT OF MINES
VICTORIA BC

FOR ANNUAL SUMMARY OF
EXPLORATION + DEVELOPMENT WORK
1966

SEE PAGE 14-28

**ANDEX
MINES LTD.**
(N.P.L.)

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PROPERTY FILE
82FNW101-05

PROSPECTUS
DECEMBER 1966

P R O S P E C T U S

OF

ANDEX MINES LTD.
(Non-Personal Liability)

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.

THE SECURITIES OFFERED HEREBY MUST BE CONSIDERED A SPECULATION.

(a) Andex Mines Ltd. (Non-Personal Liability) (hereinafter called "the Company") has its head office at #315 543 Granville Street, in the City of Vancouver, Province of British Columbia, and its registered office at Suite 201 846 West Hastings Street, in the said City of Vancouver.

(b) The Company was incorporated by Memorandum of Association under the Companies Act for the Province of British Columbia as a private company by Certificate of Incorporation issued on the 5th day of May, 1966. The Company converted from a private company to a public company by Certificate issued by the Registrar of Companies the 16th day of November, 1966.

(c) There have been no amendments to the Memorandum of Association since incorporation.

(d) The full names, addresses and occupations of the Directors are:

<u>NAME AND ADDRESS</u>	<u>OCCUPATION</u>
Henry F. Kenward 3485 West 32nd Ave., Vancouver, B.C.	Prospector
Israel Karmel 3945 Puget Drive, Vancouver, B.C.	Executive
John H. Carr, 2645 West 43rd Ave., Vancouver, B.C.	Draftsman

The promoters of the Company may be considered to be the Vendors of the mineral claims described in paragraph (m) (i) (a) herein, who are: Henry F. Kenward, 3485 West 32nd Avenue, Vancouver, B.C. and Israel Karmel, 3945 Puget Drive, Vancouver, B.C.

(e) The auditor of the Company is:

Rickard, Crawford & Co.,
Chartered Accountants,
525 Seymour Street,
Vancouver, B.C.

(f) The Registrar and Transfer Agent of the Company is:

Guaranty Trust Company of Canada,
624 Howe Street,
Vancouver, B.C.

(g) The authorized capital of the Company is \$2,500,000.00 divided into 5,000,000 shares with a nominal or par value of 50¢ each, of which 1,250,002 shares have been issued as fully paid and non-assessable. There is no other class of shares.

(h) The Company has not created or issued any bonds or debentures, nor does it propose to do so, and no bonds or debentures are offered by this Prospectus.

(i) (a) Certificates representing 700,000 shares of the capital stock of the Company are held in escrow by the Guaranty Trust Company of Canada, 624 Howe Street, Vancouver, B.C. subject to release only with the written consent of the British Columbia Securities Commission. If the Company loses or does not obtain good and marketable title to or abandons development of any property which was or formed part of the consideration for any of the shares in escrow, there shall be surrendered to the Company by way of gift to the Company for cancellation such number of escrowed shares as the Superintendent of Brokers may direct.

(i) (b) Certificates for 550,002 shares representing the shares sold for cash are held by Anfield & Company, Barristers and Solicitors, 201 - 846 West Hastings St., Vancouver, B.C. pursuant to the order of the British Columbia Securities Commission and shall not be released to the owners thereof until the primary distribution of the shares offered by this Prospectus has been completed.

(j) The Company has sold the following shares for cash to date:

<u>NUMBER OF SHARES</u>	<u>PRICE PER SHARE</u>	<u>DISCOUNT</u>	<u>TOTAL CASH RECEIVED</u>
2	50¢	NIL	\$ 1.00
500,000	15¢	35¢	\$ 75,000.00
50,000	30¢	20¢	\$ 15,000.00
		TOTAL	<u>\$ 90,001.00</u>

No commissions have been paid on the allotment and issue of any of the above described shares.

(k) No securities other than shares have been sold for cash to date.

(l) 700,000 shares were allotted and issued on the 12th day of May, 1966 to S. David Anfield, Barrister and Solicitor, 201 - 846 West Hastings Street, Vancouver, B.C. In Trust. S. David Anfield held the said shares in Trust, for Henry F. Kenward, 3485 West 32nd Ave., Vancouver, B.C. and Israel Karmel, 3945 Puget Drive, Vancouver, B.C., Directors of the Company and Vendors of the property to the Company described in paragraph (m) (i) (a) herein. Certificates representing the said 700,000 shares are held in escrow by the Guaranty Trust Company of Canada, Vancouver, B.C. subject to release only with the written consent of the British Columbia Securities Commission, and if the Company loses or does not obtain good and marketable title to or abandons development of any of the property which was or formed part of the consideration for any of the shares in escrow, there shall be surrendered to the Company by way of gift to the Company for cancellation such number of escrowed shares as the Superintendent of Brokers in his sole discretion deems fair and equitable or in such manner or proportion as the Superintendent of Brokers may direct.

(m) (i) (a) The Company is the beneficial owner of the following mineral claims in the Slocan Mining Division:

<u>NAME OF CLAIM</u>	<u>RECORD NUMBERS</u>
H #1 to #23 inc.	8612 to 8634 inc.
H #24 to #28 inc.	9409 to 9413 inc.
K #24 to #29 inc.	10097 to 10102 inc.
WHITEY #1 to #5	Records not yet issued
WHITEY #7	Record not yet issued

(hereinafter called "the said claims").

(m) (i) (b) The Company holds, by agreement dated for reference the 14th day of July, 1966 from H. F. Kenward and Israel Karmel, the Company, and Gulf Equipment & Finance Co. Ltd., an assignment of a Licence to explore, develop and mine the Logaulas, Glogfawr, Glogfach, Cwm Mawr and Lisburne South Properties situated in the Northern part of Cardiganshire, Wales (hereinafter referred to as "the Welsh properties") pursuant to the terms of a Licence Agreement between Mining Holdings Corporation Ltd., a British corporation, and Carr Investments Ltd., assigned by Carr Investments Ltd., to Kenward and Karmel as to an undivided one-half interest and to Gulf Equipment & Finance Co. Ltd., as to an undivided one-half interest. If the Company brings the Welsh properties to production the Company is entitled to two-thirds of the net profits derived therefrom, and Mining Holdings Corporation Ltd. is entitled to one-third of the net profits. To the best of the knowledge, information and belief of the signatories hereto the greater than 5% shareholder of Mining Holdings Corporation Ltd. is M. M. Dandrick, The Cloisters, 26 - 28 Busby

Place, London, N.W. 5 and the greater than 5% shareholders of Carr Investments Ltd. are Henry F. Kenward and Israel Karmel, directors of the Company, and the greater than 5% shareholders of Gulf Equipment & Finance Co. Ltd. are David W. McLaughlin, 3665 McKechnie Ave., West Vancouver, B.C.; H.A. Briden, 3790 Southridge, West Vancouver, B.C. and S. David Anfield, 2010 Queens Ave., West Vancouver, B.C.

(m) (ii) (a) The Vendors of the said Claims are Henry F. Kenward, 3485 West 32nd Ave., Vancouver, B.C. and Israel Karmel, 3945 Puget Drive, Vancouver, B.C. each as to an undivided 50% interest. The consideration paid to them was the sum of \$20,000.00 and the allotment and issue of 700,000 shares in the capital stock of the Company. The said 700,000 shares are the shares described in paragraph (i) herein, and are held in escrow by the Guaranty Trust Company of Canada, Vancouver, B.C. subject to release only with the written consent of the Superintendent of Brokers.

(m) (ii) (b) Under the terms and conditions of the agreement dated the 14th day of July, 1966 between Henry F. Kenward, Israel Karmel, the Company, and Gulf Equipment & Finance Co. Ltd., Henry F. Kenward and Israel Karmel assigned all their interest in the Welsh properties to the Company, for the nominal consideration of \$1.00, and the Company paid Gulf Equipment & Finance Co. Ltd. the sum of \$12,000.00 for an assignment of its undivided one-half interest in the Welsh properties. Henry F. Kenward and Israel Karmel also transferred to Gulf Equipment & Finance Co. Ltd. 50,000 of their own holdings in the Company, and such shares are part of the 700,000 shares held in escrow and referred to in paragraph (1) herein, and are subject to release or transfer only with the written consent of the Superintendent of Brokers.

(m) (iii) (a) As far as the signatories hereto are aware, no other person or company has received a greater than 5% interest in the consideration received by the Vendors of the said Claims, other than Ronald F. Green, 4531 Blenheim St., Vancouver, B.C. the original owner of the said Claims, who received the sum of \$20,000.00 from Messrs. Henry F. Kenward and Israel Karmel.

(m) (iii) (b) As far as the signatores hereto are aware, no other person or company has received a greater than 5% interest in the consideration received by the Vendors and Assignors of the Welsh properties other than described in paragraph (m) (ii) (b) herein.

(m) (iv) (a) The said claims are situate in the Selkirk Mountains, a part of the Columbia Mountain Range, and are reached from Kaslo by a road 14-1/2 miles in length to the south extremity of the property. Kaslo is on the Nelson-Beaton highway, 42 miles north of Nelson, B.C. and an additional 50 miles to the Trail Smelter. Trails and roads lead from the main road along Keen Creek to the said Claims. Nelson is the nearest major supply centre and is serviced by rail, bus and airplane facilities.

(m) (iv) (b) The Welsh properties are located about 12 miles from Aberystwyth in North Cardiganshire, Wales. The Welsh properties are in easily accessible country in Wales, with paved roads, a good water supply, mild climate, electrical power and available labour.

(m) (v) (a) For a description of the underground exploration and development work on the said Claims, see the Reports of Harvey H. Cohen dated April 4th, 1966 and July 8th, 1966, copies of which are attached hereto and form part of this Prospectus.

(m) (v) (b) Considerable underground exploration and development work has been done on the Welsh properties. Considerable lead, zinc and silver has been mined on the Welsh properties. For a further description, see the Report of Gardner S. Eldridge, P. Eng., dated the 11th day of August, 1966, a copy of which is attached hereto and forms part of this Prospectus.

(m) (vi) (a) For a description of the surface exploration and development work that has been done on the said Claims, see the Reports of Harvey H. Cohen dated the 4th day of April, 1966 and the 8th day of July, 1966, copies of which are attached hereto and form part of this Prospectus.

(m) (vi) (b) Considerable surface exploration and development work has been done on the Welsh properties. For a further description of the said surface exploration and development work, see the Report of Gardner S. Eldridge, P. Eng. dated the 11th day of August, 1966, a copy of which is attached hereto and forms part of this Prospectus.

(m) (vii) (a) For a history of the said Claims, see the Reports of Harvey H. Cohen, P. Eng. dated April 4th, 1966, and July 8th, 1966, copies of which are attached hereto and form part of this Prospectus.

(m) (vii) (b) Considerable history is available in the area of the Welsh properties, and the Welsh properties were worked extensively for silver, lead and zinc in the 19th Century. For a further description of the history of the Welsh properties, see the Report of Gardner S. Eldridge dated the 11th day of August, 1966, a copy of which is attached hereto and forms part of this Prospectus.

(m) (viii) (a) The Company has carried out bulldozing and trenching on the said Claims, and further intends to carry out the recommendations contained in the Reports of Harvey H. Cohen dated April 4th, 1966 and July 8th, 1966, copies of which are attached hereto and form part of this Prospectus.

(m) (viii) (b) The Company has commenced the carrying out of an induced polarization survey on the Welsh properties, and further intends to carry out the recommendations contained in the Report of Gardner S. Eldridge, P. Eng. dated the 11th day of August, 1966 a copy of which is attached hereto and forms part of this

Prospectus, for the purpose of ascertaining the potential of the silver, lead and zinc deposits on the Welsh properties.

(n) (i) The Company offers by this Prospectus 300,000 shares. The amount payable on application for allotment of these shares is 50¢ per share, with no discount to be allowed, and a maximum commission of 25% to be payable.

(n) (ii) There are no underwriting, sub-underwriting, option or sub-option agreements outstanding at the present time.

(o) The Company intends to use the proceeds from the sale of the shares being offered pursuant to paragraph (n) (i) herein as follows:-

Payment of commissions (maximum) TO carry out Stages 1 and 2 in Report of Harvey H. Cohen dated July 8th, 1966.	\$ 37,500.00 \$ 68,000.00
TO carry out the recommendations of Gardner S. Eldridge on the Welsh properties as contained in his Report dated August 11th, 1966	\$ 25,000.00
Legal and Audit	\$ 5,000.00
General Administration	\$ 10,000.00
Reserve for contingencies	<u>\$ 4,500.00</u>
TOTAL	<u>\$150,000.00</u>

No part of the said proceeds will 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 Company propose to use the said proceeds to acquire non-trustee type securities after the initial distribution of the securities offered by this Prospectus has been completed, approval by the Shareholders will be obtained and disclosure will be made to the regulatory securities bodies having jurisdiction over the sale of securities offered by this Prospectus.

(p) Preliminary expenses incurred and paid in the formation of the Company approximate \$2,000.00. No further expenses on preliminary matters are contemplated.

(q) There is no substantial indebtedness to be created or assumed that is not shown on the Balance Sheet reported on by the Company's Auditor on the 11th day of October, 1966, a copy of which Balance Sheet is attached hereto and forms part of this Prospectus, other than expenses and costs incurred in carrying out the programs on the said claims and the Welsh properties.

(r) The principal business of each Director and Officer of the Company for the past three years and the present business is as follows:-

Henry F. Kenward 3485 West 32nd Ave., Vancouver, B.C.	Prospector, formerly director and officer of Pacific Silver Mines & Oils Limited and Bonton Mines Ltd.
-------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------

Israel Karmel 3945 Puget Drive Vancouver, B.C.	Insurance Agent and Importer
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John H. Carr 2645 West 43rd Ave., Vancouver, B.C.	Draftsman, B.C. Telephone Company
---------------------------------------------------------	-----------------------------------

(s) Henry F. Kenward and Israel Karmel, Directors of the Company, are the Vendors of the said claims, as described in paragraph (m) (i) (a) herein, and have received the consideration described in paragraph (m) (ii) (a) herein. In addition, the Directors, Henry F. Kenward and Israel Karmel, are part of the Vendors of the Welsh properties, and have received a nominal consideration for transferring their interest in the said Welsh properties to the Company.

(t) No remuneration has been paid to the Officers and Directors of the Company since the date of incorporation.

(u) It is anticipated that no remuneration will be paid to the Officers and Directors as such during the current fiscal year. If any of the Officers and Directors are hired by the Company to perform services, they will be paid the appropriate fees therefor.

(v) The holders of the escrowed shares, Henry F. Kenward and Israel Karmel, by reason of beneficial ownership of 650,000 shares, are, if they act in concert, able to elect or cause to be elected, a majority of the Board of Directors of the Company. There is no written agreement respecting the election of Directors.

(w) No dividends have been paid by the Company.

(x) If and when the shares referred to in paragraphs (i) and (l) hereof are released from escrow and sold by the owners thereof to the public, none of the proceeds of such shares will accrue to the benefit of the Company's treasury.

(y) There are no further material facts which are not disclosed by this Prospectus.

The foregoing constitutes full, true and plain disclosure of all material facts in respect to the offering of 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 Statements or Reports where required.

DATED at Vancouver, British Columbia, this 16th day of November, A.D. 1966.

"Henry F. Kenward"

Henry F. Kenward

"Israel Karmel"

Israel Karmel

"John H. Carr"

John H. Carr

REPORT ON THE LISBURNE GROUP OF
FREEHOLD MINING LEASES
OWNED BY MINING HOLDINGS CORPORATION
Cardiganshire, Wales

On instructions from H. F. Kenward and I. Karmel I proceeded to Aberystwyth, Wales, to examine and investigate the mining potential of the Lisburne Group of freehold mining leases owned by Mining Holdings Corporation Ltd., with head office at Rheidol, in Cardiganshire, Wales.

PROPERTY AND ACCESS:

The properties consist of Logaulas, Glogfawr, Glogfach, CwmMawr and Lisburne South (Llwynllwyd), and are located about 14 miles east of Aberystwyth in easily accessible country, with paved roads, a good water supply, a mild climate, electric power and available labour.

HISTORY AND PRODUCTION:

The mines had a considerable production before records were instituted in 1852. The production since 1845 is as follows:-

MINE	LEAD Concentrates (long tons)	LEAD per cent	ZINC Concentrates 55% zinc (long tons)	SILVER ounces	SILVER ozs per ton/ore
LOGAULAS	39,004	69.3	not given	94,700	2.9
GLOGFAWR	18,520	76.8	" "	122,700	6.6
GLOGFACH	9,880	76.9	" "	169,000	17.3
CWM MAWR	836	79.4	131	29,332	3.3
LISBURNE SOUTH (Llwynllwyd)	131	75.0	599		
	<u>68,371</u>	<u>72.5%</u> average.		<u>415,732</u>	

LEAD:	49,594 long tons worth @ 10¢ per lb.	\$ 9,918,800.00
ZINC:	Tonnage not available -- probably	(3,000,000.00) ?
SILVER:	415,732 ozs. @ \$1.40 per ounce	582,025.00
		<u>\$10,500,825.00</u>

No figures were given for zinblendes in the first three mines, although it is probable that they contained in this formation almost an equal amount of zinc as of galena.

The peak of the production was between 1850 and 1877, and ended abruptly when the market price of lead dropped to 2.4¢ per lb. The shipper would probably only get 1.5¢ per lb. at smelter, and it was not possible to work the mines at a profit, and they were shut down. In those days there was no flotation process for making a clean lead concentrate and a clean zinc concentrate with good recoveries such as are obtained by to-day's methods. The ores were concentrated by gravity methods, mainly jigs and tables. To make a lead concentrate of about 75%, as free as possible from zinc (as there was a penalty on zinc in lead concentrates) some lead slimes would go into the zinc concentrate and about 6 to 8 lbs. of lead per ton of feed would go into the tailings pond.

The zinc in these mines was a separate vein along the foot wall, and was often left in place as the price per lb. was so low that it had little value. The mixed lead and zinc ores were put through the gravity mill. The slimes were so fine that in order to make a good grade zinc concentrate about 40% of the zinc would go into the tailings pond. It has been estimated that there is a considerable tonnage of tailings on the dumps that will contain about 3% of zinc and 6 to 8 lbs. of lead per ton. From the number of tons mined, there should be at least 250,000 tons.

With a flotation recovery even as low as 70% (allowing for oxidation) the value of zinc recovered at 9¢ per lb. would be \$1,575,000. It is difficult to estimate how much zinc has been left in the zinc veins in the mines, or coarse zinc sorted out and put on the dumps, but this could be considerable and would add materially to the above figure.

As the material in the three main dumps is fairly fine, and the dumps are within a mile of each other, the cost of collecting and milling should not be more than \$1.75 per ton, leaving a net of about \$2.00 a ton to be added to profit when a mill is installed to treat the ore from the mine.

GEOLOGY AND ORE LOCATION:

The attached geological column shows the sequence of formations in this area, consisting of shales, mudstones and fine grits: The Cwmystwyth Formation about 4,000 feet thick at the top of the series; then 3,000 feet of Frongoch Formation; below this, 1,000 feet of dark blue shales, the Gwestyn Formation; and below that 2,000 feet of massive grits and blue mudstones, the Van Ordovician Formation. This latter lies just above the Cambrian, which outcrops a few miles to the north of this area.

The strata have been folded in three main anticlinal domes or folds, with a number of minor areas having a N.N.E. trend, and having a dip of 75 degrees to the west. Faults in the same direction as the fold areas are few in number and generally not mineralized. However, cross faults, all of normal type, trending E.N.E., are numerous and potential lodes. One in particular, the Ystwyth Fault, is one of the dominant structural features in this area. The Ystwyth River appears to follow it.

The principal lodes are at the intersection of the normal cross faults and the anticlinal N.N.E. fissures. In general, the foot wall is well defined, but the hanging wall not well marked. The dip is 55 to 65 degrees to the South. The lodes are from 20 to 120 feet wide, and consist of brecciated mudstones or grits cemented by quartz and carbonates with ore sulphides. It would appear that the ore sulphides in solid solution with sodium sulphide had been pushed up the N.N.E. fissures composed of harder rocks, until they met the softer brecciated zones of the E.N.E. cross faults, which had favourable zones for precipitation of the ore minerals, galena and zincblende. These solutions could have come up through the contact of the sediments with the igneous rocks at a much greater depth than has been mined to date. These ore shoots, the larger of which extend 1200 to 1800 feet in length, the smaller 300 to 600 feet. Mudstones are best for ore, followed by the coarse sandstones or grits. In many cases, the galena and zincblende were segregated into distinct bands, and as the zinc had little or no value at that time the zincblende was left in the mine or put on the dumps. If lead were mixed with it, this would be put through a gravity concentrator.

The ore in the above mines is mainly in the lower part of the Frongoch Formation. The lower development has stopped in a layer of soft, pyritous shales at the top of the Gwestyn series. As some mines have been developed below this layer in the Gwestyn Formation, and as the Van Mine (one of the largest producers) was in the Van Formation, which is 2,000 feet thick below the Gwestyn, it would appear that much depth of ore could be developed below this soft, pyritous layer in the top of the Gwestyn series.

A report by W. J. Hughes on Non-ferrous Mining Possibilities of Central Wales, in the book "Future of Non-Ferrous Mining in Great Britain and Ireland", estimates that the productivity of the ore shoots already mined would have averaged about 6.2% lead and 4.0% zinc.

RECOMMENDATIONS:

1. A suitable geophysical survey is advised, to pick up the parallel lodes now covered with overburden, and then expose the anomalies by bull-dozing if shallow enough, or testing by diamond drilling. Estimated cost \$75,000., Engineering, Surveying and Supervision \$25,000.

2. If this preliminary work is successful, continue the work in selected areas and then develop the found ore to obtain enough tonnage and grade to warrant putting up a suitable flotation mill to produce a marketable grade of lead and also a zinc concentrate.

3. Sample the dumps with suitable mechanical channellers and large samplers to locate suitable zinc grade ore for mill feed, after making preliminary laboratory flotation tests to find the percentage recovery.

4. Explore by drilling below the soft pyritous shales at the top of the Gwestyn Formation into the main body of the Gwestyn and Van Formations.

Reference is mainly to "Special Report on Lead-Zinc Resources of North Cardiganshire, Wales" by O.T. Jones, M.A., D.Sc., in "Geological Society Mineral Resources, G.B. XX."

Respectfully submitted,

"G. S. Eldridge"

August 11, 1966

G. S. ELDRIDGE, B.Sc, P.Eng.,
Consulting Engineer.

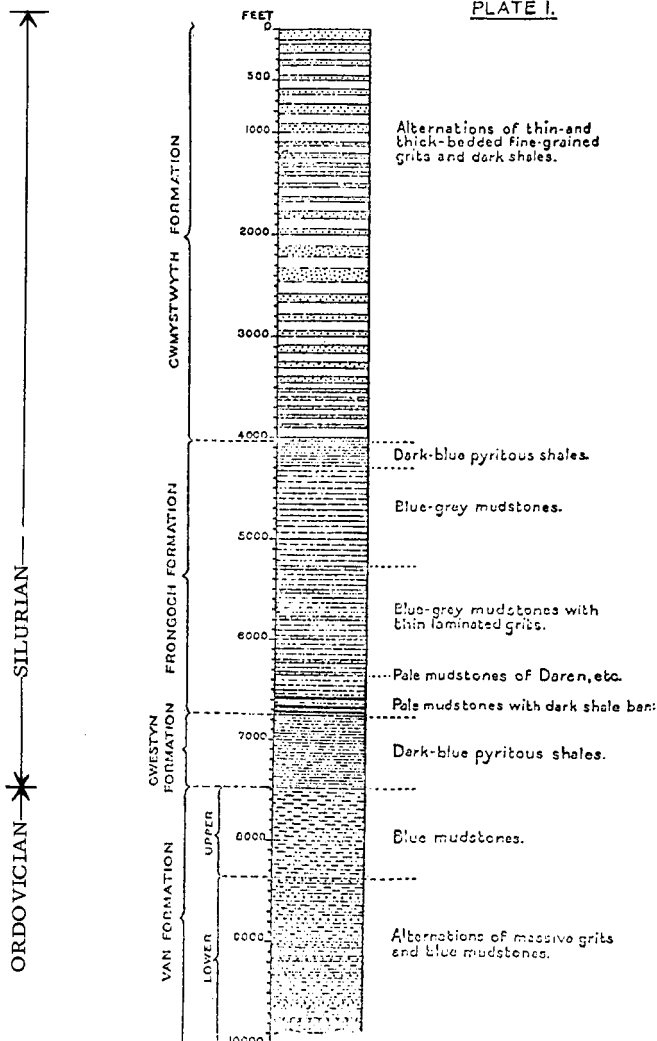
C E R T I F I C A T E

I, Gardner Smith Eldridge, of the City of Vancouver in the Province of British Columbia, DO HEREBY CERTIFY that:

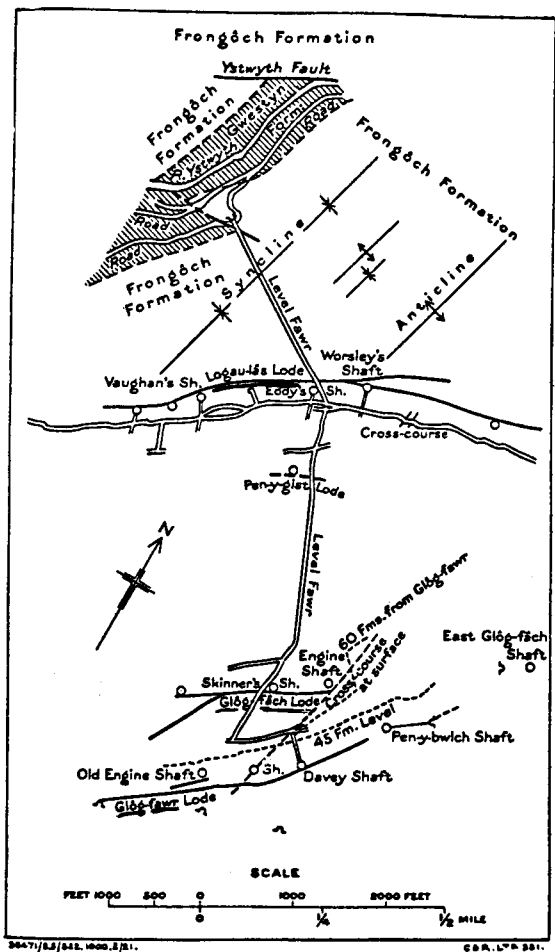
1. I am a Consulting Engineer.
2. I am a graduate of McGill University, in Montreal (B.Sc. in Mining Engineering, 1911).
3. I am a Registered Professional Engineer of the Province of British Columbia, and have Life Membership in the Canadian Institute of Mining and Metallurgy.
4. I have practised my profession in British Columbia since 1911.
5. I have not received nor do I expect to receive any interest, either directly or indirectly, in the properties or securities mentioned in the attached report.

DATED at Vancouver, B.C. this 11th day of August,
A.D. 1966.

"G. S. Eldridge"



CAMBRIAN
General section of formations



GEOLOGICAL MAP OF THE DISTRICT NEAR PONTRHYD Y GROES.

From
14 to
28

ANDEX MINES LTD (NPL)

REPORT

KEEN CREEK PROPERTY - SLOCAN MINING DIVISION

Submitted to: Andex Mines Limited
 314 - 543 Granville Street
 Vancouver 2, B.C.

Vancouver, B.C.
April, 1966

Harvey H. Cohen, P. Eng.

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LOCATION & ACCESS

The property of Andex Mines Ltd., consisting of 26 located mineral claims covers a strip of ground along Keen Creek from the old Index Mine north to the Cork Province Mine. The claims adjoin such former producers as the Silver Bear, Black Fox, Daybreak, and is located at least in part on the major geological mineralized break that extends on the hillside to the east. Other producers in near proximity to the ground are the Silver Bell, Bismark, Gibson, and Gold Cure.

The area is situated in the Selkirk mountains a part of the Columbia Mountain Range, and is reached from Kaslo by road 14-1/2 miles in length to the south extremity of the property. Kaslo is on the Nelson - Beaton Highway 22 miles north of Nelson, B.C. and an additional 40 miles to the Trail smelter. Trails and roads lead from the main road along Keen Creek to the various properties and workings in the area, and at present, the main operation consists of the Cork Province Mine, and the road to that point is accessible by ordinary vehicular traffic.

Nelson is the nearest major supply centre; it is serviced by rail, bus, and airline facilities.

SUMMARY OF CLAIMS:

The following summary of claims held by Andex Mines Ltd. is a partial list, as, at the time of writing, staking crews are on the property locating extensions of company holdings. The present holdings are as follows:-

WHITEY No. 1	Record No. 7920K
WHITEY No. 2	7921K
WHITEY No. 3	7922K
WHITEY No. 4	7923K
WHITEY No. 5	7924K
WHITEY No. 7	7926K

H 1 - 20

Record Numbers not available at time of writing.

GEOLOGY

The area in general is underlain by quartzites, argillites, and slates, Triassic in age, intruded by granitics of the important "Nelson Batholith" with its porphyritic outlying stocks and sills of Jurassic age.

The granites vary in composition, and are found to be acidic and basic in character. The Nelson Batholith is genetically related to the known ore occurrences in the Rossland area, Revelstoke area, and the 150 mile belt from the International Boundary north. It includes the productive areas of Ainsworth, Slocan, and Lardeau camps.

Locally, along Keen creek, the granites are porphyritic and have intruded the Slocan Series consisting of slates with conspicuous limestone members. Generally mineralization occurs in the more massive competent members in association with dykes, or as replacement in limestone. This geologic condition appears favorable by maintaining fractures to permit migration of mineralizers in impure sediments which are subject to replacement processes.

The Slocan Series has been strongly folded in an east-west direction and in a northwesterly direction. The geology, structurally, is complex, and has been subjected to strong shearing and faulting accompanied by brecciation. The fractures trending northeast cut the main structures, and it is this system of fractures that have provided the channels for subsequent mineralization. The deposits formed are classed as fissure filling deposits and vein type deposits chiefly. The main ore system of veins trends northeast and dips southeasterly, and are known to extend into the batholith as well as in the Slocan Series.

The chief minerals of economic importance are silver, lead and zinc, with quartz the most important gangue mineral.

The Andex Mines Ltd. holdings cover a zone of sedimentary rocks cut by the intrusive south from Kyawats creek to the Desmond creek, a distance of approximately one mile. This appears to be the most favorable locus for the company to embark on its exploratory program.

GENERAL

Adjoining the H GROUP Mineral Claims, the Cork Province Mine, operated by London Pride Silver Mines Ltd., are presently producing at a rate of 100 tons per day from the lower three (of six) levels serviced by a vertical shaft. The concentrates produced are chiefly zinc and lead with silver content. This property lies on a similar geologic contact to that of the Index Mines Ltd. property.,

Other former producers are mentioned briefly for the sake of completion: Daybreak, presently being developed by New Ainsworth Base Metals Ltd., B.N.A., Silver Bear, Black Bear.

RECOMMENDATIONS

Details of an exploratory program for the 26 claim group held by Andex Mines Ltd. and including a reconnaissance of the area in near proximity to the property. The work is divided in stages, each succeeding stage dependant upon the results of the previous stage. This would permit arrangements of preparatory nature to be conducted in advance of the work program.

Stage 1:

1. Preparation of topographic map of the area employing air photo coverage, and study of geologic features of the area.
2. Establish base line through the claims in a north-south direction and chain grid lines at intervals of 300 feet in preparation for a geophysical survey.
3. Cut lines to the extremities of the property in an east-west direction and establish stations at 100 ft. intervals.
4. Conduct a geophysical survey employing an EM or MF1 to cover the entire area.
5. Map geologically on a scale 1" = 200'. Use one geologist and assistant to cover the area using a four wheel drive vehicle for transportation.

6. Establish a temporary camp at the conflux of Desmond and Keen creeks to be used as a base during this work.
7. Compilation of results, maps, geology, and geophysical survey and analysis for detailing the program of Stage 2.

Stage 2:

8. Employ a bulldozer, a D7 or equivalent to cut trenches to expose those anomalous zones determined from the results of the geophysical survey, and those areas of interest determined by the geological mapping.
9. Conduct geological mapping and sampling of the trenching work and plot on 200 scale.
10. Strip the area along the contact of the intrusive and sediments on the H4 & H5 mineral claims in particular.
11. Conduct a geochemical survey over those areas selected from the initial survey as being in the contact area or anomalous areas.

Stage 3:

12. Prepare for diamond drilling to test at depth the zones uncovered by the bulldozer that indicate mineralization, vein structure or replacement series. A minimum drilling program for this type of deposit. At least one hole should be drilled for structure to a depth of approximately 700 feet. The remainder should be drilled, depending upon results obtained, to average depths of 300 - 400 feet.

ESTIMATE OF COST

The minimum expenditure required to conduct the above mentioned program is estimated to be as follows:-

Mobilization of crew and equipment	\$ 3,000.00
Preparation of topog map	1,000.00
Survey of base lines and grid stations	2,000.00
Line cutting	5,000.00
Geophysical survey	9,000.00
Geological mapping & supervision	2,000.00
Camp construction & supplies	2,000.00
Transportation	4,000.00
Preparation of maps, reports, analysis of results	3,000.00
Total Stage 1:-	<u>\$ 31,000.00</u>

Stage 2:

Bulldozer stripping and trenching	
preparation of drill sites access roads	\$ 12,000.00
Geochemical survey	6,000.00
Geological mapping & supervision	3,000.00
Supplies, facilities for lab work	
camp supplies, transportation	5,000.00
Total Stage 2:-	<u>\$ 26,000.00</u>

Stage 3:

Diamond drilling program 5000 feet	
AX core drilling	\$ 35,000.00
Supervision & engineering	2,000.00
Assays, core boxes, core shack	2,000.00
Camp & supplies, transportation	1,000.00
Total Stage 3:-	<u>\$ 40,000.00</u>

The above program may commence during the final week of April, 1966 with the snow conditions that prevail at that time not too detrimental to free access to the area. The initial geophysical work including line cutting surveying etc. would take approximately ten weeks to complete. The stripping and trenching would require approximately two months overall, and the drilling would require at least twelve weeks to complete.

SUMMARY AND CONCLUSIONS

Andex Mines Ltd. holds a group of mineral claims totalling 26 in number in the Slocan Series and Nelson Batholith rocks adjacent to several former producers of silver-lead-zinc ore, and adjoining the producing Cork-Province Mine on Keen Creek.

Because of the geographic and geologic location in the favorable belt and contact of the intrusive and sedimentary series, this property must be considered as one with possibilities for the occurrence of mineral deposits.

Access to the area is good, supply centres are in reasonable economic reach, the smelter at Trail is within trucking distance, and a mill at the Cork Province is available for custom milling.

R E P O R T
ON THE
G E O P H Y S I C A L S U R V E Y
W H I T E Y A N D H G R O U P M I N E R A L C L A I M S
K E E N C R E E K A R E A , B . C .
S L O C A N M I N I N G D I V I S I O N

Andex Mines Ltd. ,

Vancouver, B.C.

C E R T I F I C A T E

I, Harvey H. Cohen, of 8438 Wiltshire Street,
Vancouver 14, B.C. hereby certify that:

1. I am a graduate of the University of British Columbia B. Ap. Sc. in Mining Engineering.
2. I am a registered Professional Engineer in the Province of British Columbia since 1954 and have been practising my profession for 17 years.
3. I have no direct or indirect interest in the Whitey or H Group of Mineral Claims nor in any securities of Andex Mines Ltd. , NPL the company actively engaged in exploring this property in the Keen Creek Area, B.C.
4. I have no expectation of receiving or obtaining any interest in securities of Andex Mines Ltd. NPL.
5. Information contained in the accompanying report is based on the results obtained during the recent geophysical survey conducted on the property under the writer's direction.

"Harvey H. Cohen" P.Eng.

To accompany Report on the Geophysical Survey, Whitey and H Group Mineral Claims, Keen Creek Area, B.C., Slocan Mining Division dated July 8th, 1966 for Andex Mines Ltd.

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MAP: Geophysical Survey Whitey and H Group
 Mineral Claims, Keen Creek Area, B.C.

GEOPHYSICAL SURVEY

WHITEY 1, 2, 3, 4, 5, 7 and H 1 - 23 MC's

KEEN CREEK AREA, B.C.

SLOCAN MINING DIVISION

INTRODUCTION

The Whitey and H Group mineral claims, 29 in number, are owned by Andex Mines Ltd. (NPL) of Vancouver, B.C.

The property is situated along Keen Creek in the Kaslo area of the Selkirk Mountains and lies in close proximity to the former silver-lead producers such as the Cork Province, Gibson, Silver Bear, Silver Bell, Bismark. The property is connected to Kaslo by good road 14-1/2 miles in length, and Kaslo is situated on the Nelson-Beaton highway, approximately 22 miles north of Nelson, and an additional 40 miles from the Consolidated Mining & Smelting Co. smelter at Trail, B.C.

The geographical location may best be described as:

Longitude: 117° 10' W

Latitude : 49° 50' N

SUMMARY OF CLAIMS

<u>CLAIM</u>	<u>RECORD NO.</u>
H 1	8612
2	8613
3	8614
4	8615
5	8616
6	8617
7	8618
8	8619
9	8620
10	8621
11	8622
12	8623
13	8624
14	8625
15	8626
16	8627
17	8628
18	8629
19	8630
20	8631
21	8632
22	8633
23	8634
Whitey 1	7920
2	7921
3	7922
4	7923
5	7924
7	7926

PHYSIOGRAPHY

Drainage of the property by Keen Creek (South Fork) is northerly and easterly into Kootenay Lake. The slopes are wooded and cut by creeks entering Keen Creek from the east and west. The main flow is fed from the Kokanee glacier (elev. 9400'). Generally, the area shows moderate relief to the north of the property, and steep slopes and talus at the south extremities. The main timber growth consists of fir, balsam, hemlock, cedar, alder.

RESULTS OF GEOPHYSICAL INVESTIGATIONS

The purpose of the geophysical survey was to measure the total magnetic field to an accuracy of better than one part in 100,000 to detect and measure any magnetic or non-magnetic anomalies on the property, their size, intensity, and possible cause. An anomaly would result from the presence or absence of magnetic minerals in rocks being investigated. Locally the main rock mass in the area is a granitic carrying the accessory mineral magnetite as a constituent. A band of sedimentary rocks cuts through the Andex property in a southwesterly direction, and the resulting contact area provides a favorable geologic environment for mineral deposition.

Silver-lead-zinc mineralization, closely associated with the magnetic mineral pyrrhotite does exist on adjoining known deposits, and this is subject to detection and measurement.

Other factors which produce variations in the magnetic field are:-

1. A concentration of magnetic minerals (possibly associated with valuable minerals).
2. A variation in amount of accessory magnetite in granite or sedimentary bedrock.
3. A variation in amount of magnetite distributed through or connected with the overburden.
4. A variation in depth of non-magnetic overburden on caprock over bedrock having a constant vertical magnetic intensity.
5. Variations in amount of magnetic minerals in adjacent bands of volcanic and/or sedimentary rocks. These variations are not expected to be great, and produce elongated highs and lows parallel to the formation strike.
6. Any combination between variations in magnetic minerals in the rock and variations in the thickness of the overlying magnetic or non-magnetic overburden or caprock.

INSTRUMENTATION

The geophysical survey employed an "ELSEC" Proton magnetometer type 592/3, designed to measure the total magnetic field to a tolerance of 1 part in 100,000 over the range of field strengths normally found on the earth's surface. The measurement recorded is the total magnetic vector - in gamma. The instrument is powered by an accumulator pack or external batteries, and is fully transistorized.

OPERATION

The purpose of the magnetometer is to measure "magnetic intensity" - which may best be described as the force (torque) which tends to turn a magnetized needle at that point into line with the magnetic direction. A conventional magnetometer consists of just such a needle and with a delicately constructed instrument the accuracy can be achieved.

The Proton magnetometer employed during this survey is designed to function as follows:-

The Proton is an elementary particle with the nucleus of the hydrogen atom. The behaviour in the proton magnetometer can be understood by regarding it as a tiny bar magnet spinning rapidly about its longitudinal axis; it therefore has the properties of both a magnetised needle and a gyroscope. Because of the former it tries to point along the lines of force, but its gyroscopic property prevents this temporarily and it performs gyrations while in the gradual process of achieving this direction. These gyrations are similar to those of a spinning top under the influence of gravity. The important thing that the speed of gyration (or frequency of precession) is exactly proportional to the magnetic intensity. This frequency is about 200 gyrations per second for an intensity of 48,000 gamma.

Since hydrogen is a constituent part of water and organic liquids a large number of protons (about 1025) are conveniently obtained in a quarter-pint bottle and this forms the detecting element. The gyrating protons induce an electro-motive-force of about a microvolt in a coil wound around the bottle and this e.m.f. is passed to the instrument for amplification and frequency measurement. The gyrating protons will only induce an e.m.f. if there is a preferred phase and this is obtained by preceding each measurement by a polarizing period (automatically sequenced after pressing a start button). During this period a current of an amp is passed through the measuring coil thereby creating a magnetic field of several hundred gauss along its axis, and this produces a net proton magnetic moment in that direction; when the polarizing current is cut off the gyration of these protons en masse induce the detectable e.m.f. already mentioned. The axis of the coil is roughly East-West.

The proton magnetic moment builds up to saturation in five seconds of polarisation. During the subsequent gyrations the protons gradually get out of phase and the induced e.m.f. decays away in about five seconds.

Strong magnetic gradients (100 gamma per foot and upwards) cut down this decay time seriously, thus the frequency measurement is made within the first second of gyration.

After selective amplification, the signal is squared and then frequency divided by 1024 (10 binary stages). The resultant square wave is used to open and close a gate, which once closed

remains locked until the "start" button is pressed. When the gate is open the output of a 100 KC/S crystal-controlled oscillator is allowed through the decade chain and the final states of the five decade units, shown on the respective meters, indicate the number of oscillator cycles occurring during the 1024 gyrations.

In operation, the polarizing period is automatically sequenced and after about five seconds the meters indicate a five figure number which is a measure of the magnetic intensity wherever the water-bottle is placed. The magnetic intensity equals 24051.1 oersted.
meter count

PROCEDURE

The Whitey 1 - 5 and 7, and the H 1 - 23 mineral claims are contiguous in a general north-south direction along Keen Creek. The following procedure was used to conduct the geophysical survey:

1. A baseline was surveyed by compass and chain following the location line. Markers were flagged at 400 feet intervals for the grid. The survey provided data for plotting the claim boundaries.
2. Cross lines were run east-west on compass headings at right angles to the base line and stations chained and marked at 100 feet intervals.
3. The grid lines were marked east or west of the base line in 'hundreds'. The base line zero was established at the north extremity of the Whitey claims and the south extremity of the H claims. From this point the grid lines are numbered south to line 56S (5600 feet south of point zero) and north to line 212N (21200 feet north of point zero).
4. Readings were taken at 100 feet intervals at each station, the stations were marked and flagged with tape.
5. The readings were converted to gamma value from the calibration charts for this instrument.
6. The data was plotted on a map prepared from the survey, contoured at 100 gamma intervals.
7. A total of 39 miles of line were completed on this survey.

ANALYSIS OF RESULTS

The resulting geophysical map yielded five separate zones of significance as follows: From north to south -

1. 208N 12W:

This anomaly measures 400 feet east-west by 200 feet north-south. The peak records a high of over 500 gamma above background with the greater part in the 300-400 gamma range. It is located on the sedimentary-intrusive contact and cuts the contact zone east-west indicative of a possible vein system conforming to a fracture pattern. The zone is within 1500 feet of the Cork-Province Mine, and could be a mineralized section genetically related to the Cork-Province deposit. The overburden and/or transported material with magnetite content as a possible cause of this anomaly could not be considered. The cause is definitely due to a condition in the rock itself - the sediments of the Slocan series - limestone carrying other minerals. The anomaly is in line with the Black Fox workings to the east.

2. 188N 14W
176N 11W
163N 14W
156N 14W
148N 14W

This anomalous zone consisting of a series of anomalies measures 4800 feet in length and over 800 feet in width. They follow the limestone-granite contact zone for this distance. Normally, this would result in elongated almost parallel lines of low magnetic intensity, and just east of the anomalies, this condition is evident. The five highlights noted above are due to abnormal conditions, in particular the anomaly at line 168N which takes on an east-west structural trend. The intensity recorded above background was over 600 gamma as was the 176N and 148N anomalies. All are worthy of further investigation in the search of mineralized bodies. The 168N anomaly appears to be due to pyrrhotite content possibly carrying valuable minerals, the shape is indicative of a vein system striking east-west and dipping to the north. The "high" is concealed by overburden to shallow depths on the west slope of Keen Creek. This anomalous series is definitely related to the contact zone but the intensity recorded, and the shape of the zone derived from the readings indicates better than average possibilities of a series of cross fractures containing mineralization.

3. 140N 10W

A magnetic high of 400 gamma is shown over an area of 400 x 200 feet. It is of significance due to its trend across the contact or a change in strike of the contact. Either condition is interesting from a geologic viewpoint. If it crosses the contact, it could represent a vein system - if it follows a change in contact, there could be openings created in the intrusive "bend" which, in close proximity

to the limestone, would provide favorable conditions for mineralization. The magnetic intensity of 400 gamma above background could be due in part to heavier overburden concealing the bedrock. In any event it is worthy of further investigation. It lies west of the old Daybreak mine.

4. 68N 13W

A small anomaly of 400 gamma intensity is recorded on H9 M.C. directly south of the old Silver Bell workings. The anomaly is narrow (less than 100 feet) and shows a length of 200 feet. It could extend easterly below the creek to relate to the Silver Bell, but this is a speculation. It was selected due to its location and shape as well as intensity.

5. 40N 2E

This anomaly of a magnetic intensity of over 400 gamma measures 800' x 400' and is situated on H5 M.C., to the west of the BNA workings. It is due to mineralization at depth or to material in the overburden transported from mineralized bodies above. It lies on the east side of Keen Creek, and both possibilities must be considered. It is listed for completion.

Other anomalous conditions on the map were interpreted as structural features and/or caused by variation in depth of overburden over bedrock of constant magnetic intensity.

CONCLUSIONS

The five anomalous zones selected in the area surveyed were of greater significance the first three are directly related to the intrusive-sedimentary contact zone while they are not caused by the contact itself. The magnitude of the magnetic intensity presents the possibility of mineralization, the shape of the anomalies are indicative of vein deposits - common to the known former producers. The last two anomalies described are in an intrusive area and are caused possibly by mineralization - similar to the known zones observed at the old Index Mine - vein system in an intrusive mass. The most interesting zone is described as No. 2, a system of five zones related to form a large anomaly 4800 feet in length. The zones are worthy of further investigation to determine the cause of the condition measured.

RECOMMENDATIONS

The program recommended at this time consists of stripping and trenching of the anomalous zones employing a bulldozer (D7 or equivalent). A gas operated rock drill may be used to drill and blast cuts in bedrock to assist in geological mapping. Reconnaissance prospecting should be carried out to the west of Keen Creek and geological mapping using air photos as a

guide and the existing stations as tie-in points may be carried out and mapped on 200 scale with detail mapping on 40 scale.

A camp suitable for five men may be established on the property.

A second phase of exploratory work should include a diamond drilling program to test the five anomalous zones at depth. At least ten holes to depths of 200 - 250 feet would be required at locations selected as a result of the bulldozer work and geological mapping.

ESTIMATES

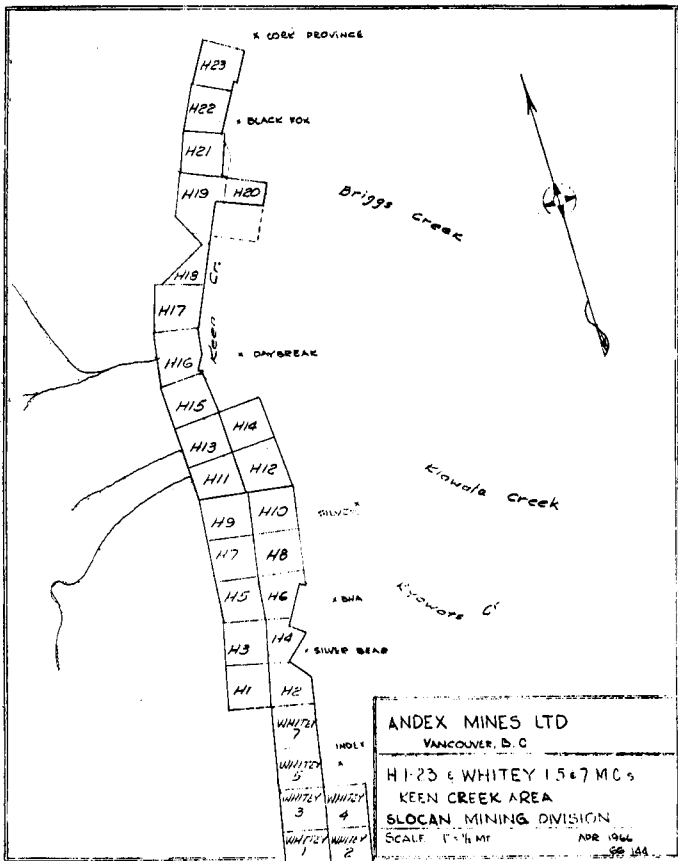
Phase 1

Bulldozer stripping, trenching and road construction	\$ 10,000.00
Drilling and blasting (equipment and labor)	3,000.00
Prospecting, sampling, assays	1,500.00
Geological mapping and reconnaissance	2,000.00
Camp and supplies	2,500.00
Transportation	1,000.00
Supervision, engineering and reports	2,000.00
Miscellaneous and contingencies	3,000.00
	<hr/>
TOTAL PHASE 1	\$ 25,000.00

Phase 2

Diamond drilling 2500' AX	\$ 25,000.00
Sampling, core logging, engineering	6,000.00
Transportation	2,000.00
Camp and supplies	5,000.00
Miscellaneous and contingencies	5,000.00
	<hr/>
TOTAL PHASE 2	\$ 43,000.00

The time required to complete Phase 1 is estimated to be six to eight weeks, and Phase 2, ten to twelve weeks. The fieldwork should be conducted under direction of an engineer or geologist at the site.



CERTIFICATE

I, Harvey H. Cohen, of 8438 Wiltshire Street, Vancouver 14, B.C. hereby certify that:

1. I am a graduate of the University of British Columbia B Ap Sc in Mining Engineering 1949
2. I am a registered Professional Engineer in the Province of British Columbia since 1954 and have been practising my profession for 17 years
3. I have no direct or indirect interest in the H, K, or Whitey Mineral Claims in the Keen Creek Area, B.C. nor in any securities of the company actively engaged in exploring this property.
4. I have no expectation of receiving or obtaining any interest in Andex Mines Ltd.
5. Information contained in the accompanying reports is based on my personal examinations of the property in the field together with a geophysical survey conducted under our supervision during May and June 1966.

"Harvey H. Cohen" P. Eng.

To accompany Report on the Keen Creek Property, Slocan Mining Division dated April 4th, 1966 and Report on the Geophysical Survey of the Whitey and H Group Mineral Claims Keen Creek Area, B.C. dated July 8th, 1966

AUDITORS' REPORT

To the Shareholders,
Andex Mines Ltd.,
(Non-Personal Liability)

We have examined the balance sheet of Andex Mines Ltd. (Non-Personal Liability) as at October 11, 1966. 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 presents fairly the financial position of the company as at October 11, 1966, in accordance with generally accepted accounting principles.

"Rickard, Crawford & Co."
Chartered Accountants.

ANDEX MINES LTD.

(Non-Personal Liability)

Balance Sheet

October 11, 1966

ASSETS

Current			
Cash in banks	\$ 29,815.90		
Travel advance	<u>500.00</u>	\$ 30,315.90	
Capital Assets, at cost			
Mineral claims in British Columbia (including value of \$70,000 placed on 700,000 shares issued)	90,636.80		
Licence to explore certain mining pro- perties in Wales	\$ 12,000.00		
Acquisition costs of Welsh properties	<u>5,965.73</u>	17,965.73	
Automobile	<u>2,583.25</u>	111,185.78	
Exploration and development costs			
Engineering & survey of Welsh property	9,300.00		
Mine development, engineering reports and surveys	<u>13,652.69</u>	22,952.69	
Administrative expenses			
Stationery, Telephone, etc.		928.33	
Incorporation expense		<u>1,189.24</u>	
		<u>\$ 166,571.94</u>	

Approved on behalf of the Board

"Henry F. Kenward" Director

"Israel Karmel" Director

LIABILITIES

Current

Accounts payable re mine development	\$ 6,505.40	
Other	<u>65.54</u>	
		\$ 6,570.94

Share capital

Common shares with a par value of 50¢; authorized 5,000,000 shares, issued 550,002 shares for cash	275,001.00	
Less discounts	<u>185,000.00</u>	
	90,001.00	
 700,000 shares issued at 10¢ each for mining properties (held in escrow)	 <u>70,000.00</u>	
		160,001.00
		<u>\$ 166,571.94</u>
		<u><u> </u></u>

This is the balance sheet
referred to in our report
dated October 18, 1966.

"Rickard, Crawford & Co."