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THE SECURITIES OFFERED FOR SALE THROUGH THIS PROSPECTUS MAY ONLY BE LAWFULLY OFFERED FOR SALE IN THOSE JURISDICTIONS IN WHICH THIS PROSPECTUS HAS BEEN ACCEPTED FOR FILING AND THEREIN ONLY BY PERSONS PERMITTED TO SELL SUCH SECURITIES.

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.

AMENDED PROSPECTUS

**DATED: March 17, 1989
AS AMENDED: August 18, 1989**

**PMA RESOURCES
INC.**

TF

(the "Issuer")
210 - 11751 Bridgeport Road
Richmond, British Columbia V6X 1T5
Telephone: (604) 270-4941

Toodogone River Property
94E 018

800,000 COMMON SHARES

Shares	Price to Public	Commissions	Net Proceeds to be received by Issuer
Per share	\$0.35	\$0.05	\$0.30
Total	\$280,000	\$40,000	\$240,000 (1)

(1) Before deducting the expense of this offering estimated not to exceed \$25,000.

THERE IS NO MARKET THROUGH WHICH THE SECURITIES MAY BE SOLD. THE PRICE FOR THIS OFFERING HAS BEEN DETERMINED BY NEGOTIATION BETWEEN THE ISSUER AND THE AGENT.

THE VANCOUVER STOCK EXCHANGE HAS CONDITIONALLY LISTED THE SECURITIES BEING OFFERED PURSUANT TO THIS PROSPECTUS. LISTING IS SUBJECT TO THE ISSUER FULFILLING ALL THE LISTING REQUIREMENTS OF THE VANCOUVER STOCK EXCHANGE ON OR BEFORE SEPTEMBER 25, 1989, INCLUDING PRESCRIBED DISTRIBUTION AND FINANCIAL REQUIREMENTS.

THE OFFERING PRICE OF \$0.35 PER SHARE EXCEEDS THE NET TANGIBLE BOOK VALUE PER COMMON SHARE BY \$0.19, AFTER GIVING EFFECT TO THIS OFFERING, REPRESENTING A DILUTION OF 54%. SEE "RISK FACTORS". AN INVESTMENT IN THE SECURITIES OFFERED HEREUNDER MUST BE CONSIDERED AS SPECULATIVE. ALL OF THE PROPERTIES IN WHICH THE ISSUER HAS AN INTEREST ARE IN THE EXPLORATION AND DEVELOPMENT STAGE ONLY AND ARE WITHOUT A KNOWN BODY OF COMMERCIAL ORE. SEE "RISK FACTORS".

NO PERSON IS AUTHORIZED BY THE ISSUER TO PROVIDE ANY INFORMATION OR TO MAKE ANY REPRESENTATION OTHER THAN THOSE CONTAINED IN THIS PROSPECTUS IN CONNECTION WITH THE ISSUER AND SALE OF THE SECURITIES OFFERED BY THE ISSUER.

ON COMPLETION OF THIS OFFERING THIS ISSUE WILL REPRESENT 34% OF THE SHARES THEN OUTSTANDING AS COMPARED TO 39% THAT WILL THEN BE OWNED BY THE CONTROLLING PERSONS, PROMOTERS, DIRECTORS AND SENIOR OFFICERS OF THE ISSUER. SEE "PRINCIPAL SHAREHOLDERS".

THIS PROSPECTUS ALSO QUALIFIES THE ISSUANCE OF THE AGENT'S WARRANTS AND THE SALE OF ANY SHARES ISSUED PURSUANT TO THE GREENSHOE OPTION AND THE SALE AT THE MARKET PRICE AT THE TIME OF THE SALE OF ANY SHARES ACQUIRED BY THE AGENT PURSUANT TO ITS AGREEMENT TO PURCHASE ANY SHARES NOT SUBSCRIBED FOR AT THE CONCLUSION OF THE OFFERING. THE AGENT IS ENTITLED TO SELL ANY SHARES ACQUIRED ON THE EXERCISE OF THE WARRANTS AT THE MARKET PRICE AT THE TIME OF SALE WITHOUT FURTHER QUALIFICATION. SEE "PLAN OF DISTRIBUTION".

ONE OR MORE OF THE DIRECTORS OF THE ISSUER HAS AN INTEREST, DIRECT OR INDIRECT, IN OTHER NATURAL RESOURCE COMPANIES. REFERENCE SHOULD BE MADE TO THE HEADING "DIRECTORS AND OFFICERS" FOR A COMMENT AS TO THE RESOLUTION OF POSSIBLE CONFLICTS OF INTEREST.

WE, AS AGENT, CONDITIONALLY OFFER THESE SECURITIES SUBJECT TO PRIOR SALE, IF AS AND WHEN ISSUED BY THE ISSUER AND ACCEPTED BY US IN ACCORDANCE WITH THE CONDITIONS CONTAINED IN THE AGENCY AGREEMENT REFERRED TO UNDER "PLAN OF DISTRIBUTION".

YORKTON SECURITIES INC.
1400 - 609 Granville Street
Vancouver, British Columbia V7Y 1G5

EFFECTIVE DATE: August 29, 1989

Rec'd Dec. 18/89

MINISTRY OF ENERGY, MINES and PETROLEUM RESOURCES	
Date	JAN 15 1990
Subject
Title	PRINCE GEORGE, B.C.

PMA RESOURCES INC.

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PROSPECTUS SUMMARY

The following is a summary only and reference is made to the more detailed information appearing elsewhere in this Prospectus.

THE COMPANY

PMA Resources Inc. (the "Issuer") is a company which is in the business of exploration and development of mineral properties. The Issuer is the recorded owner of a group of claims known as the Lake I to IV Claims in the Toadoggone River Area, Omineca Mining Division, British Columbia. Preliminary exploration indicates the presence of zinc, gold and silver mineralization. With the use of the proceeds of this offering, the Issuer intends to complete the first phase of the exploration program which has been recommended by its geological consultant.

THE OFFERING

Issue: 800,000 Shares

Price: \$0.35 per Share

Use of Proceeds

Of the estimated net proceeds (after deducting commissions of \$40,000 and the estimated offering expenses of \$25,000) of \$215,000, \$108,465 will be expended on the first phase of the recommended program of exploration for the Property. The balance remaining will be applied to the Issuer's working capital.

Risk Factors

There is no current market for the shares of the Company. The principal asset of the Issuer consists of an unproven mineral property. In the event that further development is warranted, additional financing may be required before it can be brought into production. No member of the board of directors is professionally qualified in the mining industry. (see "Risk Factors")

1. NAME AND INCORPORATION

PMA RESOURCES INC. (the "Issuer") was incorporated as PMA Technologies Inc. on November 26, 1984, under the Company Act of British Columbia and on June 16, 1988 changed its name to PMA Resources Inc.

The head office is located at 210, 11751 Bridgeport Road, Richmond, British Columbia, V6X 1T5, and the registered office of the Issuer is located at 15th Floor, 1040 West Georgia Street, Vancouver, British Columbia, V6E 4H8.

2. PLAN OF DISTRIBUTION

Primary Offering

The Issuer by its Agent hereby offers (the "Offering") to the public through the facilities of the Vancouver Stock Exchange (the "Exchange") 800,000 shares (the "Shares") of the Issuer at the price of \$0.35 per Share. The Offering will be made in accordance with the rules and policies of the Exchange and on a day (the "Offering Day") determined by the Agent and the Issuer with the consent of the Exchange, within a period of 180 days from the date upon which the Shares are conditionally listed on the Exchange.

Appointment of Agents

The Issuer, by an agreement (the "Agency Agreement") dated August 14, 1989, appointed Yorkton Securities Inc. as its agent ("Agent") to offer the Shares for sale through the facilities of the Exchange. The Agent will receive a commission of \$0.05 per share, including any shares sold from the Issuer's treasury pursuant to the Greenshoe Option.

The Agent has agreed to purchase from the Offering any shares not sold at the conclusion of the Offering. In consideration therefor, the Agent has been granted non-transferable share purchase warrants ("Agent's Warrants"), entitling it to purchase up to 200,000 common shares in the capital of the Issuer at any time up to the close of business two years from the date of the listing of the Issuer's common shares on the Exchange at the price of \$0.35 per share in the first year and \$0.4025 per share in the second year.

The Agent's Warrants will contain, among other things, anti-dilution provisions and provision for appropriate adjustment of the class, number and price of shares issuable pursuant to any exercise thereof upon the occurrence of certain events, including any subdivision, consolidation or reclassification of the Shares or the payment of stock dividends.

The Agent reserves the right to offer selling group participation, in the normal course of the brokerage business, to selling groups of other licensed broker-dealers, brokers and investment dealers, who may or may not be offered part of the commissions or bonuses derived from the Offering.

The obligations of the Agent under the Agency Agreement may be terminated prior to the day the Shares of the Issuer are listed, posted and called for trading on the Exchange at the discretion of the Agent on the basis of its assessment of the state of the financial markets and, upon certain stated events.

The Issuer has granted the Agent a right of first refusal to provide future public equity financing to the Issuer for a period of 12 months from the date (the "Effective Date") on which the receipt for this Prospectus shall have been issued by the Superintendent of Brokers (the "Superintendent") for the Province of British Columbia.

Greenshoe Option

The Agent is entitled to over-allot the shares of the Issuer in connection with the Offering and the Issuer has granted to the Agent an option (the "Greenshoe Option") to sell, at the offering price of \$0.35 such number of shares of the Issuer being the lesser of fifteen (15%) per cent of the Offering or the actual number of shares subscribed for by way of an over-subscription during the primary distribution of these shares. The Greenshoe Option shall be exercisable over a period of 60 days from the Offering Day. The number of shares subject to the Greenshoe Option shall be determined at the conclusion of the Offering Day.

Additional Offering

This Prospectus also qualifies the issuance of the Agent's Warrants and the sale of any shares issued pursuant to the Greenshoe Option and the sale at the market price at the time of sale of any shares of the Issuer acquired by the Agent pursuant to its agreement to purchase any shares not subscribed for at the conclusion of the Offering. The Agent may sell any shares acquired on the exercise of the Agent's Warrants at the market price for such shares at the time of sale, pursuant to the provisions of the British Columbia Securities Act and the Regulations thereto, without further qualification. The Issuer will receive the exercise price of shares purchased pursuant to the Agent's Warrants but will receive none of the proceeds from the sale of such common shares by the Agent, all of which proceeds will in such event accrue to the Agent.

There are no payments in cash, securities or other consideration being made, or to be made, to a promoter, finder, or any other person or Issuer in connection with the Offering.

The Directors, Officers and other insiders of the Issuer may purchase shares from this Offering.

Conditional Listing

The Exchange has conditionally listed the securities being offered pursuant to this Prospectus. Listing is subject to the Issuer fulfilling all the listing requirements of the Exchange on or before September 25, 1989, including prescribed distribution and financial requirements.

3. BUSINESS AND PROPERTIES OF THE ISSUER

The Issuer is engaged in the acquisition, exploration and development of resource properties. The Issuer holds the mining properties described herein. The Issuer intends to seek and acquire additional resource properties worthy of exploration and development, as well as revenue generating properties. The cost of such additional properties would be funded from the Issuer's working capital, or from future financings.

A. Toodoggone River Property, Omineca Mining Division, British Columbia

By an agreement dated May 29, 1986 between the Issuer and Toodoggone Syndicate (the "Syndicate"), the Issuer purchased a 100% undivided interest in

the following mineral claims (the "Property") located in the Omineca Mining Division, British Columbia:

<u>Claim Name</u>	<u>Record No.</u>	<u>Units</u>	<u>Expiry Date</u>
Lake I	6926	20	March 25, 1990
Lake II	6927	20	March 25, 1990
Lake III	6928	20	March 25, 1990
Lake IV	6929	20	March 25, 1990

The Issuer purchased the Property for the price of \$50,000 which has been paid. A 3% net smelter return is reserved in favour of the Syndicate. The Property is recorded in the name of the Issuer. Apart from assessment work or payments in lieu, no further payments are required in order to maintain the Property in good standing.

The members of the Syndicate are McDonald Gold Corporation of North Vancouver, British Columbia, Kargen Development Corporation of Richmond, British Columbia, and 265102 B.C. Ltd. of West Vancouver, British Columbia, each as to a one third interest. McDonald Gold Corporation is controlled by J. Malcolm Bell who has purchased 76,600 shares representing 5% of the issued capital of the Issuer before this offering. Kargen Development Corporation is controlled by Glen E. White. Mr. White also controls White Geophysical Inc. and Western Geophysical Aerodata Inc. which performed exploration work on the Property in 1986 and 1987 at a cost to the Issuer of \$34,881. 265102 B.C. Ltd. is a corporation controlled by Clive Ashworth who purchased 76,600 shares representing 5% of the issued capital of the Issuer before this offering.

Location and Access

The Property is located in the Toodoggone River area, 340 kilometers north of Smithers, British Columbia. The Property is accessible by float plane directly from Smithers, or by road to the Sturdee airstrip 290 kilometers north of Smithers, and then a further 50 kilometers by helicopter.

History and Previous Work

The first exploration activity in the Toodoggone River area consisted of placer mining in the 1930s. High grade material was discovered at several locations in the area by Lode Prospecting Ventures but no development took place. Gold and silver mineralization was discovered by Kennco Exploration (Western) Ltd. ("Kennco") on the Chappelle property (later Baker Mine) and by Sumito (later Sumac Mines) on Albert's Hump. Presently the three main properties in the region are Multinational's Baker Mine (Chappelle), SEREM'S Lawyers Deposit and Energex's Al Deposits.

Work done by the Issuer and Future Exploration

Reconnaissance contour soil sampling was done on the northeastern part of the Property in 1985. Airborne magnetometer and VLF electromagnetometer surveys were flown over the claims in early 1986. Ground follow-up mapping, prospecting and rock chip sampling were done on the Property in 1987. Soil sampling was also done over a grid area on the Lake I Claim.

The Issuer has obtained an engineering report (the "Sorbara Report") dated November 27, 1988, prepared by J. Paul Sorbara, M.Sc., F.G.A.C., Robert R. Arnold, M.Sc., P.Geol., F.G.A.C. and Denis A. Collins, B.Sc., Ph.D., F.G.A.C., of Delta, British Columbia. The Sorbara Report recommends a two phase program of exploration and development. Phase I, estimated to cost \$108,465 includes additional geophysical ground surveying (magnetometer, VLF-EM and Utem), detailed geological mapping, lithochemical sampling and limited trenching.

The Sorbara Report concludes that "the Lake I-IV claims have the potential to host precious metal and base metal mineralization similar to other deposits and recent showings found in the Toadogone area".

If warranted by the results of Phase I, and subject to arranging any further financing required, the Issuer would proceed with Phase II of the exploration program which would include diamond drilling at a probable cost of \$350,000.

There is no surface or underground plant or equipment on the Property. There is no known body of commercial ore on the Property. The proposed work program is an exploratory search for ore.

B. Casa Berardi Area, Laberge Township, Quebec

The Issuer holds a 100% undivided interest in the following mineral claims (the "Claims") located in the Laberge Township, Province of Quebec:

<u>Claim No.</u>	<u>Area (in hectares)</u>	<u>Expiry Date</u>
438109-1	16	January 18, 1990
438109-2	16	January 18, 1990
438109-3	16	January 18, 1990
438109-4	16	January 18, 1990
438109-5	16	January 18, 1990
438118A-1	16	January 18, 1990
438118A-2	16	January 18, 1990
438118B-3	16	January 19, 1990
438118C-4	16	January 17, 1990
438118C-5	16	January 17, 1990

The Claims were staked by a shareholder of the Issuer, on the Issuer's behalf at a cost to the Issuer of \$10,000. The Issuer has no present plans to develop the Claims, except to the extent required to keep the Claims in good standing.

There is no surface or underground plant or equipment on the Claims. There is no known body of commercial ore on the Claims.

4. USE OF PROCEEDS

The net proceeds of \$240,000 to be derived by the Issuer from the sale of the 800,000 Shares offered hereunder will be spent, in order of priority, as follows:

(a)	To pay legal, audit, printing and other expenses of this prospectus	\$ 25,000
(b)	Working capital deficit as at July 31, 1989	\$ 48,839
(c)	To pay the estimated costs of Phase I of the work program on the Toodoggone Property recommended by Sorbara Geological Consulting Ltd. in the report dated November 27, 1988	\$108,465
(d)	Working capital for general corporate purposes	<u>\$ 57,696</u>
	TOTAL	\$240,000

The unallocated funds of \$57,696 are to be added to the Issuer's working capital, to be used for general corporate purposes.

Any funds received upon the exercise of the Agent's Warrants or Greenshoe Option will be added to working capital of the Issuer.

The proceeds from the sale of Shares offered by this Prospectus are intended to be used for the purposes set forth above. However, the Issuer, pursuant to the recommendations of a qualified engineer, may abandon in whole or in part any of its property or, as work progresses, may alter the work program recommended or make such arrangements for the performance of all or any portion of such work by conducting work or examining other properties acquired by the Issuer after the date of this Prospectus. All of the foregoing is subject to the advice and recommendation of a qualified engineer. If any such event occurs during the primary distribution of the Shares referred to in this Prospectus, an amendment to this Prospectus will be filed. If any such event occurs after primary distribution of the Units, the shareholders will be notified.

No part of the proceeds will be used to invest, underwrite or trade in securities other than those that qualify as an investment in which trust funds may be invested under the laws of the jurisdiction in which the securities offered by this Prospectus may be lawfully sold. Should the Issuer intend to use the proceeds to acquire other than trustee type securities after the distribution of the securities offered by this Prospectus, approval by the shareholders of the Issuer must first be obtained and notice of the intention must be filed with the regulatory bodies having jurisdiction over the sale of the securities offered by this Prospectus.

5. RISK FACTORS

The shares offered by this Prospectus must be considered speculative, generally because of the nature of the Issuer's business. In particular:

- (a) There is no known body of ore on the Issuer's mineral property. The purpose of the present offering is to raise funds to carry out further exploration with the objective of establishing ore of commercial tonnage and grade. If the Issuer's exploration programs are successful, additional funds will be required for the development of an economic ore body and to place it in commercial production. The only source of

future funds presently available to the Issuer is through the sale of equity capital. The only alternative for the financing of further exploration would be the offering by the Issuer of an interest in its property to be earned by another party or parties carrying out further exploration or development thereof, which is not presently contemplated.

- (b) There is no established market for the shares of the Issuer and no assurance that one will develop.
- (c) Exploration for minerals is a speculative venture necessarily involving some substantial risk. There is no certainty that the expenditures to be made by the Issuer in the acquisition of the interests described herein will result in discoveries of commercial quantities of ore.
- (d) Resource exploration and development is a speculative business and involves a high degree of risk. The marketability of natural resources which may be acquired or discovered by the Issuer will be affected by numerous factors beyond the control of the Issuer. These factors include market fluctuations, the proximity and capacity of natural resource markets and processing equipment, government regulations, including regulations relating to prices, taxes, royalties, land tenure, land use, importing and exporting of minerals and environmental protection. The exact effect of these factors cannot be accurately predicted, but the combination of these factors may result in the Issuer not receiving an adequate return on invested capital.
- (e) Mining operations generally involve a high degree of risk. Hazards such as unusual or unexpected formations and other conditions are involved. The Issuer may become subject to liability for pollution, cave-ins or hazards against which it cannot insure or against which it may elect not to insure. The payment of such liabilities may have a material, adverse effect on the Issuer's financial position.
- (f) While the Issuer has obtained the usual standard title reports with respect to its property, this should not be construed as a guarantee of title. The property may be subject to prior unregistered agreements or transfers or other undiscovered defects. No title report has been obtained by the Issuer on the Casa Berardi, Quebec mineral claims (see Item 3B "Business and Properties of the Issuer").
- (g) The Issuer's property consists of recorded mineral claims which have not been surveyed, and therefore, the precise area and location of such claims may be in doubt.
- (h) After the issuance of the securities offered by this Prospectus and prior to the exercise of any outstanding share purchase options or warrants, the Issuer will have a book value per common share of \$0.16. Accordingly, purchasers of the securities offered hereunder will experience an immediate dilution of \$0.19 per share (54%) in the net tangible book value of their investment.
- (i) Reference is made to "Directors and Officers" concerning possible conflicts of interest involving directors and officers of the Issuer.

- (j) No member of the board of directors has professional qualifications in the mining industry. The Issuer will need to obtain the advice of professional geological consultants respecting geological matters.
- (k) The securities offered hereunder, excluding any securities acquired by underwriters, directors or employees from the exercise of share purchase options or warrants, will represent 34% of the outstanding shares of the Issuer on completion of the Offering, as compared to 39% issued to promoters, directors, officers, substantial security holders and underwriters for cash, property and services, assuming no further purchases by such persons under the Offering.

6. DESCRIPTION OF SHARES AND CAPITAL STRUCTURE

The authorized capital of the Issuer consists of 15,000,000 common shares without par value of which 1,545,700 shares have been issued as fully paid and non-assessable.

All of the common shares without par value of the Issuer, both issued and unissued, are of the same class and rank equally as to dividends, voting rights and participation in assets. No common shares have been issued subject to call or assessment. There are no pre-emptive or conversion rights and no provision for redemption, purchase or cancellation, surrender or sinking or purchase funds. Provisions as to modification, amendment or variation of such rights and provisions are contained in the Company Act of British Columbia.

<u>Designation of security</u>	<u>Amount authorized</u>	<u>Amount out-standing as at January 31, 1989</u>	<u>Amount out-standing as at July 31, 1989</u>	<u>Amount to be outstanding if all securities being issued are sold</u>
Common shares without par value	15,000,000	1,545,700 shares*	1,545,700 shares	2,345,700 shares**

* 130,000 shares were issued as "flow-through" shares for a total consideration of \$36,000. The tax losses relating to the expenditure of such funds will be unavailable to the Issuer.

** Before giving effect to any shares issued upon the exercise of the Agent's Warrants, the Greenshoe Option described under "Plan of Distribution" and the options described under "Options to Purchase Securities".

Note: The Issuer has no retained earnings.

7. PRIOR SALES

Since the date of incorporation of the Issuer a total of 1,545,700 common shares have been sold and issued for cash as follows:

<u>Number of Common Shares</u>	<u>Price per Share</u>	<u>Total Commissions Paid</u>	<u>Total Price</u>
750,000	\$0.01	nil	\$ 7,500
34,000	\$0.15	nil	\$ 5,100
691,700	\$0.25	nil	\$ 172,925
<u>70,000</u>	<u>\$0.30</u>	<u>nil</u>	<u>\$ 21,000</u>
1,545,700			\$ 206,525

Of the above described sales, 997,000 shares were purchased by insiders of the Issuer, or their associates. Shares sold at \$0.15 per share were subscribed for prior to December 31, 1984.

8. ESCROWED SHARES

At the date of this prospectus 750,000 common shares are held in escrow at National Trust Company, 900-666 Burrard Street, Vancouver, British Columbia, subject to the direction and determination of the Superintendent of Brokers. The escrow restrictions provide that the shares may not be traded in or dealt with in any manner whatsoever, or released, nor may the Issuer, its transfer agent or escrow holder make any transfer or record any trading of the shares without the consent of the Superintendent of Brokers, before the Issuer's shares are called for trading on the Vancouver Stock Exchange and without the consent of the Vancouver Stock Exchange thereafter. In addition, the escrow restrictions provide that any shares not released from the terms of escrow within 10 years of the effective date of this Prospectus shall be cancelled. The complete text of the escrow agreement will be available for inspection at the offices of Mawhinney & Kellough, 15th Floor, 1040 West Georgia Street, Vancouver, B.C., V6E 4H8.

<u>Designation of Shares</u>	<u>Number of common shares held in escrow</u>	<u>Percentage of class</u>
Common shares	750,000	49%

9. POOLED SHARES

Shares in the capital of the Issuer are pooled with the Issuer's transfer agent, National Trust Company, 900-666 Burrard Street, Vancouver, British Columbia as follows:

<u>Number of Shares</u>	<u>Price per Share</u>	<u>Pooling Agreement Type</u>	<u>Percentage of Class</u>
34,000	\$0.15	Compulsory	2.2%
691,700	\$0.25	Voluntary	44.7%
<u>70,000</u>	<u>\$0.30</u>	<u>Voluntary</u>	<u>4.5%</u>
795,700			51.4%

The pooled shares will be released on the basis of 25% at the time of the listing of the Issuer's shares on the Exchange and 25% every three months thereafter. The holders of the pooled shares may not sell, deal in, assign or transfer in any manner any of the pooled shares or beneficial ownership thereof or any interest therein, without first obtaining the written consent of the Superintendent or, if the shares are listed on the Exchange, of the Exchange.

10. PRINCIPAL SHAREHOLDERS

To the knowledge of the directors and senior officers of the Issuer, only the following persons hold beneficially, directly or indirectly 10% or more of the issued common shares of the Issuer as at the date of this prospectus:

<u>Name and Address</u>	<u>Type of Ownership</u>	<u>Number and Class of shares</u>	<u>Percentage of Class</u>
Howard Gordon Andersen 6931 Dunsany Place Richmond, B.C.	Of record and beneficial	600,000 shares of which 500,000 are escrow shares	38%
Peter Juergen Karius 1054 No. 5 Road Richmond, B.C.	Of record and Beneficial	255,000 shares of which 200,000 are escrow shares	16%

The percentage of common shares owned, directly or indirectly by all of the promoters, directors, senior officers and controlling persons of the Issuer, as a group, is as follows:

<u>Designation of Class</u>	<u>Number of Shares beneficially owned, directly or indirectly</u>	<u>Percentage of Class</u>
Common shares without par value	925,000	60%

Upon completion of the sale of all of the 800,000 Shares offered hereby, the promoters, directors, senior officers and controlling persons of the Issuer will own, directly or indirectly, 39% of the total issued and outstanding common shares in the capital of the Issuer. The 800,000 Shares offered hereby represent 34% of the total number of common shares of the Issuer to be issued and outstanding upon completion of the sale of all of the Shares offered hereunder.

To the best of the knowledge of management of the Issuer, no shares in the capital of the Issuer are owned by underwriters as that term is defined in Local Policy 3-31 of the British Columbia Securities Commission.

11. OPTIONS TO PURCHASE SECURITIES OF THE ISSUER

As at August 1, 1989, the following non-transferable options to purchase shares of the Issuer have been granted:

<u>Group</u>	<u>Number in Group</u>	<u>Number of Shares subject to Option</u>	<u>Option Price</u>
Executive officers	0	0	n/a
Directors other than Executive officers	1	117,285	\$0.35
Employees	1	117,285	\$0.35

The options are exercisable for a period of five (5) years from the Effective Date of this Amended Prospectus, or within 30 days after the optionee ceases to be a director or employee, as the case may be, of the Issuer, whichever is earlier. None of the options granted to the directors of the Issuer is exercisable until such time as the options have been approved by resolution passed at a general meeting of the Issuer's shareholders.

12. DIRECTORS AND OFFICERS

<u>Name and Address</u>	<u>Principal Occupation during the last five years</u>	<u>Position with the Company</u>
HOWARD GORDON ANDERSEN 6931 Dunsany Place Richmond, B.C. V7C 4N8	Self-employed Management Consultant operating under the name of Howard G. Andersen & Associates; President and a director of Crack Resources Ltd., Goldbrae Developments Ltd., PMA Resources Inc., Liberty Gold Corp., Sselectek Industries Inc., Spearhead Resources Ltd. and Toodoggone Gold Inc.	President and Director
PETER JUERGEN KARIUS 10511 No. 5 Road Richmond, B.C. V7A 4E6	Proprietor of Karius & Company, Certified General Accountant; Director of Goldbrae Developments Ltd. and Sselectek Industries Inc.	Director
GILBERT WAYNE REESE 8326 Dayton Court Richmond, B.C. V6Y 3H6	Public Relations Manager of Goldbrae Developments Ltd.; Professor, Northwest Baptist College until 1987; Director of Crack Resources Ltd.	Director
GWENDOLINE HELEN REESE 8326 Dayton Court Richmond, B.C. V6Y 3H6	Education Director, Northshore Alliance Church; until June 1988, Administrative Assistant for Goldbrae Developments Ltd.; Professor, Northwest Baptist College until 1987	Secretary

The Issuer's audit committee will be comprised of Howard Andersen, Peter Karius and G. Wayne Reese. The mining expertise of the board of directors will be augmented when required by consultation with a professional geologist or engineer. In this regard, the Issuer has engaged the services of Sorbara Geological Consulting Ltd. (which employs the authors of the geological report obtained by the Issuer on its Toodoggone River property - see "Business and

Properties of the Issuer"). Services will be provided by Sorbara Geological Consulting Ltd. to the Issuer upon request on a per diem basis.

Certain directors of the Issuer are directors of other reporting companies. As such, certain of the directors may be involved in negotiating the acquisition and sale of property interests and other assets for these companies. From time to time, two or more of these companies may participate in the acquisition, exploration and development of properties, thereby allowing for participation in larger projects and permitting involvement in a greater number of projects and reducing financial exposure in respect of any one project. It may also occur that, because of the financial position of a company, including the Issuer, it may be necessary to assign the Issuer's interest in a particular project to another of these companies. All such conflicts will be disclosed by the directors in accordance with the Company Act, and these opportunities or prospects will be allocated among the companies on the basis of prudent business judgment and the relative financial abilities and needs of the companies to participate.

13. EXECUTIVE COMPENSATION

The Issuer has one executive officer. In the fiscal year ending October 31, 1988, the Issuer paid management fees in the amount of \$24,000 to Howard Andersen & Associates (a proprietorship of Howard Andersen) as to \$12,000 and Karius Resource Services Inc. (a corporation controlled by Peter J. Karius) as to \$12,000. Pursuant to an agreement dated October 1, 1987, commencing November 1, 1987, the Company has paid to Howard Andersen & Associates the sum of \$1,000 per month for management and administrative services rendered. Pursuant to an agreement dated October 1, 1987, commencing November 1, 1987, the Company has paid to Karius Resource Services Inc. the sum of \$1,000 per month for accounting services rendered. In addition, pursuant to an office and accounting services agreement dated January 4, 1988, the Company has paid to Karius Resource Services Inc. the sum of \$300 per month, plus additional charges, for office services provided. Reference is also made to "Options to Purchase Securities of the Issuer".

14. REGISTRAR AND TRANSFER AGENT

The Registrar and Transfer Agent for the shares of the Issuer is National Trust Company, 900 Park Place, 666 Burrard Street, Vancouver, British Columbia, V6C 2Z9.

15. AUDITOR

The Auditor of the Issuer is Beauchamp & Company, Chartered Accountants, 1052 Richards Street, Vancouver, British Columbia, V6B 4Y6.

16. PROMOTERS

Under the definition of "promoter" contained in the Securities Act (British Columbia), the present promoter of the Issuer is Howard Andersen, having

taken the initiative in founding and organizing of the Issuer. There have been no other promoters of the Issuer.

The present promoter of the Issuer has acquired and now beneficially owns shares of the Issuer as follows:

<u>Name of Promoter</u>	<u>Number of Shares</u>	<u>Price paid Per Share</u>
Howard Andersen	500,000 escrowed	\$0.01
6931 Dunsany Place Richmond, B.C.	100,000 non-escrow	\$0.25

Reference is also made to "Executive Compensation".

17. INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

Other than as disclosed in this Prospectus, the directors, officers and principal shareholders and their respective affiliates or associates have no interest in any past or proposed material transaction of the Issuer.

18. MATERIAL CONTRACTS

The only material contracts entered into by the Issuer within the two years preceding the date hereof, other than contracts entered into in the ordinary course of business, are as follows:

- (a) The Agency Agreement described under "Plan of Distribution";
- (b) The Escrow Agreements and Pooling Agreements described under "Escrow Shares" and "Pooled Shares";
- (c) The agreement by which the Issuer acquired an interest in the Toodoggone Property described under "Business and Properties of the Issuer";
- (d) Management Agreements between the Issuer and Howard Andersen & Associates and between the Issuer and Karius Resource Services Inc. described under "Executive Compensation".

All agreements referred to in this Prospectus may be inspected during normal business hours at the offices of Mawhinney & Kellough, Barristers and Solicitors, 1500 - 1040 West Georgia Street, Vancouver, British Columbia.

19. OTHER MATERIAL FACTS

There are no other facts believed by the signatories hereto to be material to this offering or securities which are not disclosed herein or in the accompanying reports.

20. STATUTORY RIGHTS OF WITHDRAWAL AND RESCISSION

The Securities Act provides a purchaser with a right to withdraw from an agreement to purchase securities within two business days after receipt or deemed receipt of a prospectus and further provides a purchaser with remedies for rescission or damages where the prospectus and any amendment contains a material misrepresentation or is not delivered to the purchaser prior to delivery of the written confirmation of sale or prior to midnight on the second business day after entering into the agreement, but such remedies must be exercised by the purchaser within the time limit prescribed. For further information concerning these rights and the time limits within which they must be exercised the purchaser should refer to Sections 66, 114, 118, and 124 of the Securities Act or consult a lawyer.

PMA RESOURCES INC.
(formerly PMA Technologies Inc.)

FINANCIAL STATEMENTS

**BEAUCHAMP
& COMPANY**

CHARTERED ACCOUNTANTS

AUDITORS' REPORT

To the Directors of
PMA Resources Inc.
(formerly PMA Technologies Inc.)

We have examined the balance sheets of PMA Resources Inc. as at October 31, 1988, 1987, 1986 and 1985 and the statements of deficit, operations and changes in financial position for the years ended October 31, 1988, 1987, 1986 and 1985. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these financial statements present fairly the financial position of the Company as at October 31, 1988, 1987, 1986 and 1985 and the results of its operations and the changes in its financial position for the years ended October 31, 1988, 1987, 1986 and 1985, in accordance with generally accepted accounting principles applied on a consistent basis.



Vancouver, B.C.
January 31, 1989

Chartered Accountants

**BEAUCHAMP
& COMPANY**

CHARTERED ACCOUNTANTS

REVIEW ENGAGEMENT REPORT

To the Directors of
PMA Resources Inc.

We have reviewed the accompanying balance sheet of PMA Resources Inc. as at January 31, 1989 and the statement of deficit, operations and changes in financial position for the period then ended. Our review was made in accordance with generally accepted standards for review engagements and accordingly consisted primarily of enquiry, analytical procedures and discussion of information supplied to us by the company.

A review does not constitute an audit and consequently we do not express an audit opinion on these financial statements.

Based on our review, nothing has come to our attention that causes us to believe that these financial statements are not, in all material respects, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding years.

Beauchamp & Company

Vancouver, B.C.
February 20, 1989.

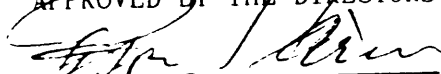
Chartered Accountants.

PMA RESOURCES INC.

BALANCE SHEET

	Jan. 31, 1989 (Unaudited)	Oct. 31, 1988 (Audited)	Oct. 31, 1987 (Audited)	Oct. 31, 1986 (Audited)	Oct. 31 1985 (Audited)
ASSETS					
CURRENT ASSETS					
Cash	\$ 229	\$ 2,314	\$ 2,885	\$ 3,957	\$ 83
Subscriptions receivable	<u>-</u>	<u>-</u>	<u>-</u>	<u>7,500</u>	<u>3,500</u>
	<u>229</u>	<u>2,314</u>	<u>2,885</u>	<u>11,457</u>	<u>3,583</u>
MINERAL CLAIM INTERESTS, at cost (notes 3 and 4)					
Acquisition, staking costs	60,000	60,000	60,000	60,000	-
Deferred exploration costs (schedule)	<u>63,480</u>	<u>60,580</u>	<u>57,115</u>	<u>38,550</u>	<u>-</u>
	<u>123,480</u>	<u>120,580</u>	<u>117,115</u>	<u>98,550</u>	<u>-</u>
INCORPORATION COSTS					
	<u>578</u>	<u>578</u>	<u>578</u>	<u>578</u>	<u>578</u>
	<u>\$124,287</u>	<u>\$123,472</u>	<u>\$120,578</u>	<u>\$110,585</u>	<u>\$ 4,161</u>
	=====	=====	=====	=====	=====
LIABILITIES					
CURRENT LIABILITIES					
Accounts payable and accruals	\$ 28,115	\$ 16,766	\$ 1	\$ 14,926	\$ 828
Shareholder advance	-	-	-	250	550
Loan payable - demand	<u>2,500</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
	<u>30,615</u>	<u>16,766</u>	<u>1</u>	<u>15,176</u>	<u>1,378</u>
SHAREHOLDERS' EQUITY					
SHARE CAPITAL (notes 5 and 9)	206,525	206,525	175,525	125,675	16,100
DEFICIT	(112,853)	(99,819)	(54,948)	(30,266)	(13,317)
	<u>93,672</u>	<u>106,706</u>	<u>120,577</u>	<u>95,409</u>	<u>2,783</u>
	<u>\$124,287</u>	<u>\$123,472</u>	<u>\$120,578</u>	<u>\$110,585</u>	<u>\$ 4,161</u>
	=====	=====	=====	=====	=====

APPROVED BY THE DIRECTORS:

 Director
Peter Karius

 Director
Howard Anderson

See accompanying notes.

PMA RESOURCES INC.

STATEMENT OF DEFICIT

	3 months ended Jan. 31, <u>1989</u> (Unaudited)	Year ended			
		<u>Oct. 31,</u> <u>1988</u> (Audited)	<u>Oct. 31,</u> <u>1987</u> (Audited)	<u>Oct. 31,</u> <u>1986</u> (Audited)	<u>Oct. 31,</u> <u>1985</u> (Audited)
BALANCE AT BEGINNING OF PERIOD	\$ 99,819	\$54,948	\$30,266	\$13,317	\$ -
Loss for the period	<u>13,034</u>	<u>44,871</u>	<u>24,682</u>	<u>16,949</u>	<u>13,317</u>
BALANCE AT END OF PERIOD	<u>\$112,853</u> =====	<u>\$99,819</u> =====	<u>\$54,948</u> =====	<u>\$30,266</u> =====	<u>\$13,317</u> =====

See accompanying notes.

PMA RESOURCES INC.

STATEMENT OF OPERATIONS

	3 months ended	Year ended			
	Jan. 31, 1989 (Unaudited)	Oct. 31, 1988 (Audited)	Oct. 31, 1987 (Audited)	Oct. 31, 1986 (Audited)	Oct. 31, 1985 (Audited)
REVENUE					
Interest	\$ -	\$ 89	\$ 31	\$ 258	\$ 89
EXPENSES					
Accounting and audit	2,957	3,625	150	875	2,000
Data processing	1,100	3,050	950	175	-
Interest and bank charges	11	79	111	81	45
Legal	660	251	1,355	353	-
Management fees	6,000	24,000	22,000	15,550	7,000
Office and clerical	1,214	4,275	102	54	1,122
Regulatory fees	-	5,816	-	-	-
Rent and telephone	1,092	3,711	45	119	500
Transfer agent fees	-	153	-	-	-
Travel and entertainment	-	-	-	-	2,739
	<u>13,034</u>	<u>44,960</u>	<u>24,713</u>	<u>17,207</u>	<u>13,406</u>
LOSS FOR THE PERIOD	\$13,034 =====	\$44,871 =====	\$24,682 =====	\$16,949 =====	\$13,317 =====

See accompanying notes.

PMA RESOURCES INC.

STATEMENT OF CHANGES IN FINANCIAL POSITION

	3 months ended	Year ended			
	Jan. 31, 1989 (Unaudited)	Oct. 31, 1988 (Audited)	Oct. 31, 1987 (Audited)	Oct. 31, 1986 (Audited)	Oct. 31, 1985 (Audited)
OPERATING ACTIVITIES					
Loss for the period	\$(13,034)	\$(44,871)	\$(24,682)	\$(16,949)	\$(13,317)
Changes in non-cash working capital items, net	<u>13,849</u>	<u>16,765</u>	<u>(7,675)</u>	<u>9,798</u>	<u>(2,122)</u>
	<u>815</u>	<u>(28,106)</u>	<u>(32,357)</u>	<u>(7,151)</u>	<u>(15,439)</u>
FINANCING ACTIVITIES					
Issuance of common shares	<u>-</u>	<u>31,000</u>	<u>49,850</u>	<u>109,575</u>	<u>16,100</u>
INVESTMENT ACTIVITIES					
Mining interests and development	(2,900)	(3,465)	(18,565)	(98,550)	-
Incorporation costs	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(578)</u>
	<u>(2,900)</u>	<u>(3,465)</u>	<u>(18,565)</u>	<u>(98,550)</u>	<u>(578)</u>
INCREASE (DECREASE) IN CASH DURING THE PERIOD	(2,085)	(571)	(1,072)	3,874	83
Cash at beginning of period	<u>2,314</u>	<u>2,885</u>	<u>3,957</u>	<u>83</u>	<u>-</u>
CASH AT END OF PERIOD	\$ 229 =====	\$ 2,314 =====	\$ 2,885 =====	\$ 3,957 =====	\$ 83 =====

See accompanying notes.

PMA RESOURCES INC.

SCHEDULE OF DEFERRED EXPLORATION COSTS

	3 months	Year ended			
	ended Jan. 31, 1989 (Unaudited)	Oct. 31, 1988 (Audited)	Oct. 31, 1987 (Audited)	Oct. 31, 1986 (Audited)	Oct. 31, 1985 (Audited)
BALANCE AT BEGINNING OF PERIOD	\$60,580	\$57,115	\$38,550	\$ -	\$ -
Toodoggone River Property in the Omineca Mining Division of B.C.					
Magnetometer survey	-	-	-	23,000	-
Line cutting	-	-	-	15,000	-
Geological survey	-	1,795	10,885	-	-
Assays	-	-	2,000	-	-
Engineering report	<u>2,500</u>	<u>1,550</u>	<u>-</u>	<u>550</u>	<u>-</u>
	<u>2,500</u>	<u>3,345</u>	<u>12,885</u>	<u>38,550</u>	<u>-</u>
Casa Berardi Claims in the Laberge Township of Quebec					
Magnetometer survey	-	-	5,600	-	-
Annual rental costs	<u>400</u>	<u>120</u>	<u>80</u>	<u>-</u>	<u>-</u>
	<u>400</u>	<u>120</u>	<u>5,680</u>	<u>-</u>	<u>-</u>
BALANCE AT END OF PERIOD	\$63,480 =====	\$60,580 =====	\$57,115 =====	\$38,550 =====	\$ - =====

See accompanying notes.

PMA RESOURCES INC.
NOTES TO FINANCIAL STATEMENTS

1. NATURE OF OPERATIONS

The Company is in the process of exploring its mineral properties and has not yet determined whether the properties contain ore reserves that are economically recoverable.

The continued operations of the Company and the recoverability of the amounts shown for resource assets are dependent upon the existence of economically recoverable reserves; the ability of the Company to obtain the necessary financing to complete the development; and upon future profitable production.

2. INCORPORATION

The Company was incorporated in British Columbia on November 26, 1984 under the name of PMA Technologies Inc., and on June 16, 1988 changed its name to PMA Resources Inc.

3. SUMMARY OF ACCOUNTING POLICIES

a) Mining interests

The Company capitalizes the acquisition and related exploration costs less option payments received and other recoveries until such time as the property to which they relate is brought into production, sold or abandoned. These costs will be amortized on a unit of production basis commencing production or written off when abandoned.

During the year ended October 31, 1986, the Company had incurred \$36,000 of exploration costs on behalf of shareholders pursuant to flow-through share subscriptions. The income tax advantages applicable to the \$36,000 of exploration costs incurred by the Company were available to the subscribers of the shares and not to the Company.

b) Values

Under the above-stated policy, mineral claim interests costs are shown as assets in the balance sheet. These costs are not intended to reflect present or future values.

4. MINERAL CLAIM INTERESTS

The Company owns the following claims:

	3 months	Year ended		
	ended Jan. 31, <u>1989</u> (Unaudited)	Oct. 31, <u>1988</u> (Audited)	Oct. 31, <u>1987</u> (Audited)	Oct. 31, <u>1986</u> (Audited)
100% undivided interest in 5 mineral claims known as Lake I-IV, situated in the Toodoggone area of the Omineca Mining Division of British Columbia				
Acquisition costs (cash)	\$ 50,000	\$ 50,000	\$ 50,000	\$ -
Deferred exploration costs (schedule)	<u>57,280</u>	<u>54,780</u>	<u>51,435</u>	<u>88,550</u>
	<u>107,280</u>	<u>104,780</u>	<u>101,435</u>	<u>88,550</u>
The above property is subject to a 3% net smelter return royalty.				
100% undivided interest in 10 mineral claims known as Casa Berardi claims, situated in the Laberge Township, Province of Quebec				
Staking costs	10,000	10,000	10,000	10,000
Deferred exploration costs (schedule)	<u>6,200</u>	<u>5,800</u>	<u>5,680</u>	<u>-</u>
	<u>16,200</u>	<u>15,800</u>	<u>15,680</u>	<u>10,000</u>
TOTAL	\$123,480 =====	\$120,580 =====	\$117,115 =====	\$ 98,550 =====

The Lake I-IV claims are in good standing until March 29, 1990. The Casa Berardi claims are in good standing until January 17-19, 1990.

5. SHARE CAPITAL

Authorized - 15,000,000 common shares of no par value

	Issued Shares		Subscribed Shares		Total
	Number	\$ value	Number	\$ value	\$ value
Balance, date of incorporation November 26, 1984	-	\$ -	-	\$ -	\$ -
Escrow shares issued	350,000	3,500			3,500
Cash subscriptions			64,000	12,600	12,600
Balance, October 31, 1985	350,000	3,500	64,000	12,600	16,100
Escrow share subscriptions			400,000	4,000	4,000
Flow-through share sub- scriptions			130,000	36,000	36,000
Cash subscriptions			278,300	69,575	69,575
Balance, October 31, 1986	350,000	3,500	872,300	122,175	125,675
Cash subscriptions			199,400	49,850	49,850
Balance, October 31, 1987	350,000	3,500	1,071,700	172,025	175,525
Cash subscriptions			84,000	21,000	21,000
	350,000	3,500	1,155,700	193,025	196,525
Issuance of subscribed shares	1,155,700	193,025	(1,155,700)	(193,025)	-
Issuance of shares for cash	40,000	10,000			10,000
Balance, October 31, 1988 and January 31, 1989	1,545,700	\$206,525	-	\$ -	\$206,525

Of the total issued shares, 750,000 shares are held in escrow subject to the direction of the regulatory authorities.

The Company, subject to shareholder approval, has granted director and employee share options for up to 204,570 common shares at \$0.55 per share to expire five (5) years from the date of receipt of the Company's prospectus by the Superintendent of Brokers for the Province of British Columbia.

6. DIRECTORS' AND SENIOR OFFICERS' REMUNERATION

	3 months ended	Year ended			
	Jan. 31, 1989 (Unaudited)	Oct. 31, 1988 (Audited)	Oct. 31, 1987 (Audited)	Oct. 31, 1986 (Audited)	Oct. 31, 1985 (Audited)
Management fees were paid and/or payable to officers and directors as follows:	\$6,000	\$24,000	\$22,000	\$15,500	\$7,000

7. RELATED PARTY TRANSACTIONS

Officers and directors of the Company have purchased a total of 925,000 shares of the Company. These 925,000 shares include the 750,000 shares issued under the escrow agreement to the president and two directors of the Company.

Persons related to officers and directors of the Company have purchased and hold 72,000 shares of the Company.

A professional accounting practice controlled by a director was paid and/or accrued \$625 during the year ended October 31, 1988 (1987 - \$150; 1986 - \$875; 1985 - \$2,000).

A non-reporting company controlled by a director was paid and/or accrued \$1,100 for the three months ended January 31, 1989 and \$3,050 during the year ended October 31, 1988 (1987 - \$950; 1986 - \$175; 1985 - Nil) for data processing services rendered by the Company.

8. INCOME TAX CONSIDERATION

During the year ended October 31, 1986, the Company issued 130,000 common shares under a flow-through share agreement and renounced the tax deduction on a corresponding \$36,000 of exploration expenditures.

9. SUBSEQUENT EVENTS

Subsequent to January 31, 1989, the Company entered into an underwriting agreement for the sale of 500,000 common shares for consideration of \$275,000.

The agent of the offering has been granted non-transferable share purchase warrants entitling them to purchase 125,000 common shares of the Company at any time up to the close of business two years from the date of listing of the Company's common shares on the Vancouver Stock Exchange at a price of \$0.55 per share in the first year and \$0.6325 per share in the second year.

REPORT ON THE LAKE I TO LAKE IV CLAIMS

TOODOGGONE RIVER AREA

LIARD AND OMINECA MINING DIVISIONS

BRITISH COLUMBIA

NTS 94 - E / 11

W. Longitude: 126⁰ 54' N. Latitude: 57⁰ 15'

FOR

PMA TECHNOLOGIES INC.
105 - 10711 Cambie Road
Richmond, B.C.
V6X 3G5

BY

J. PAUL SORBARA, M.Sc., F.G.A.C.
ROBERT R. ARNOLD, M.Sc., P.Geol., F.G.A.C.
and DENIS A. COLLINS, B.Sc., Ph.D., F.G.A.C.

SORBARA GEOLOGICAL CONSULTING LTD.
6703 Nicholson Road
Delta, B.C.
V4E 2T2

NOVEMBER 27, 1988

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SUMMARY

Exploration work in the Toodoggone Region since the 1960's has led to the discovery of three main mineral deposits: the Baker Gold Mine (pre-production reserves of 100,000 tons @ 0.92 oz Au/t), the SEREM's Lawyers deposit (pre-1985 reserves of 1.035 million tons @ 0.21 oz Au/t and 7.58 oz Ag/t) and the Energex's Al property (reserves estimated @ 264,000 tons "open-pittable" @ 0.248 oz Au/t). Although only a small portion of the Toodoggone gold belt has been explored, several precious metal deposits have been outlined with an estimated potential of one million ounces of gold and 23 million ounces of silver. Recently, thrust fault related gold and silver mineralization has been discovered on Energex's JD claims, located approximately 10 kilometers to the southwest of the subject property. Values of up to 1.14 opt gold and 12.77 opt silver were recorded in trench samples (Stockwatch, Oct. 28, 1988).

The present report was prepared at the request of PMA Technologies Ltd. to provide full and plain disclosure on the data pertaining to the Lake I to IV claims located within the Toodoggone precious metal belt. The property is located approximately 340 kilometers north of Smithers, British Columbia. The property, situated east of Breccia Peak, straddles the Belle Creek and covers Midas Lake and Upper Belle Lake. The claims are centered at latitude 57⁰ 31' North and longitude 127⁰ 05' West and access is by helicopter from the Sturdee airstip which lies approximately 40 kilometers south of the subject property.

Mineralization in the Toodoggone Gold Belt is represented by four main mineral deposit types:

- **Porphyry** - mainly associated with Omineca intrusions.
- **Skarn** - contact of limestone and intrusive rock.

- **Stratabound** - occurring in or adjacent to limestone with interbedded chert.
- **Epithermal** - occurring mostly in Toodoggone and Takla Volcanics and sometimes hosted within faulted and fractured zones.

Previous exploration work on the Lake claims consisted of airborne geophysical surveys (VLF-EM and Magnetometer), limited geological mapping and geochemical sampling (rock, soil and silt). The northeast corner of the Lake IV claim had not previously been sampled during the 1985 exploration program however, in 1987 values of up to 730 ppb gold and 10,000 ppm copper were recorded from veins in this location. This area is coincident with a major east-west trending fault which is interpreted from the 1986 airborne geophysical survey.

No previous work is recorded from the major portion of the Lake III claim where 3 fault intersections are interpreted from the 1986 airborne geophysical survey. This area is likely to be a zone of fracturing and deformation that may host fault related mineralization similar to that recently discovered on Energex's JD claims.

In the light of the results obtained on the PMA Technologies Inc. claims, the writers believe that the subject property has the potential for hosting significant precious metal and/or base metal mineralization.

Further exploration of the Lake I to Lake IV claims is warranted and recommended by the authors. Details of the proposed follow-up ground work and estimated costs are included in the body of this report.

INTRODUCTION

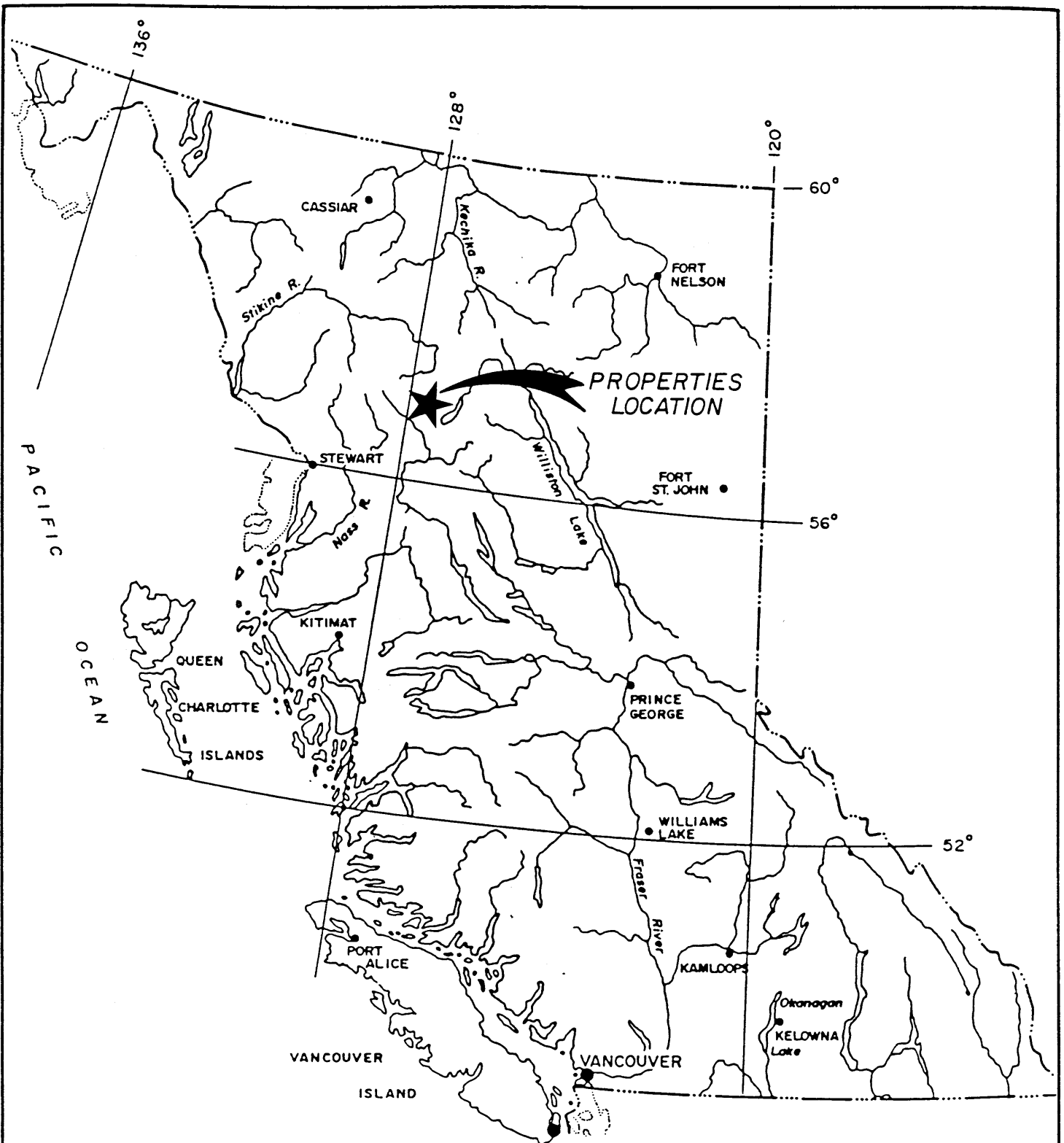
This summary and evaluation of the PMA Technologies Inc. is done at the request of the directors of PMA Technologies Inc. The main purpose of the present report is to evaluate the precious metal and/or base metal potential of the property and to propose an exploration program designed to test this potential.

This report is based on a review of public and private reports pertaining to the area, recent exploration activities on the property, government geological and topographical maps and claim data from the mining recorder's office. Due to winter conditions at the time of writing the present report, the authors did not visit the property. They have, however, written in the past several reports on various properties located in the general area of the Lake I to Lake IV claims.

LOCATION AND ACCESS

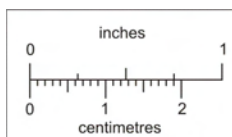
The PMA Technologies Inc. claims are located in the Toodoggone River area, approximately 340 kilometers north of Smithers, British Columbia. The property, situated east of Breccia Peak, straddles the Belle Creek and covers Midas and Upper Belle Lakes. The claims are centered at latitude $57^{\circ} 31'$ North and longitude $127^{\circ} 05'$ West and access is by helicopter from the Sturdee airstrip which lies approximately 40 kilometers south of the property.

Local topographic relief varies from moderate to very steep and rugged rising at Contact Peak to a maximum of 850 meters (2,790 feet) above the level of adjacent lakes. Elevations within the property range from 1,450 meters (4,757 feet) to 2,300 meters (7,545 feet) above sea level.

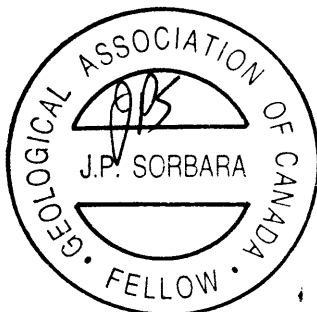


BRITISH COLUMBIA

Scale 1 : 7,500,000 approx.



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PMA TECHNOLOGIES INC.		
LAKE I to LAKE IV PROPERTY TOODOGGONE RIVER AREA, OMINCA M.D.		
GENERAL LOCATION MAP		
SCALE: As shown	DATE: Nov. 1988	N.T.S. 94E/11
SORBARA GEOLOGICAL CONSULTING LTD		FIGURE No: 1

Most of the claim area lies above treeline, however, lower areas around Midas and Upper Belle Lakes are covered by scrub brush.

PROPERTY AND OWNERSHIP

The subject property consists of 4 contiguous mineral claims, totalling 80 units, located some 340 kilometers north of Smithers, B.C., within the Liard and Omineca Mining Divisions. The claims were recorded in the name of the Toodoggone Syndicate and are the subject of an option agreement with PMA Technologies Inc.

A list of pertinent claims data is given below:

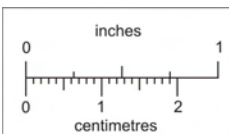
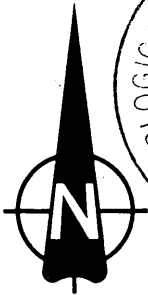
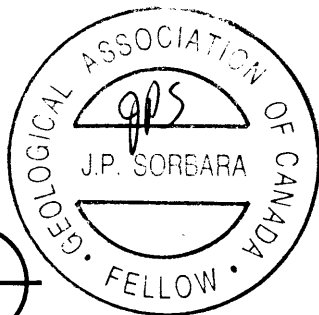
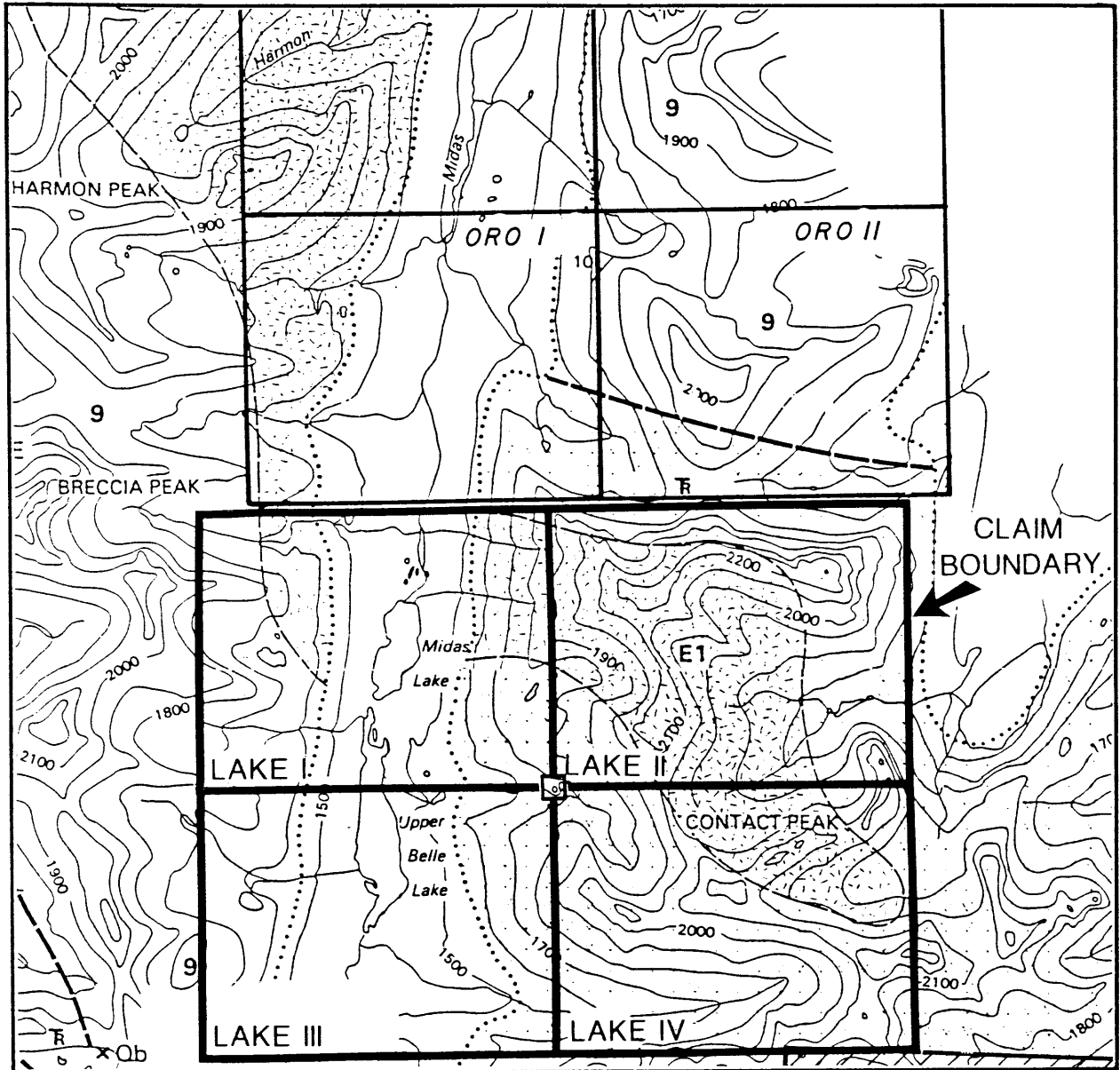
<u>CLAIM</u>	<u>UNITS</u>	<u>RECORD No.</u>	<u>RECORD DATE</u>
Lake I	20	6926	March 25, 1985
Lake II	20	6927	March 25, 1985
Lake III	20	6928	March 25, 1985
Lake IV	20	6929	March 25, 1985

The entire property is shown on the Mineral Claim Map 94 - E / 11 and on Figure 3 of the present report.

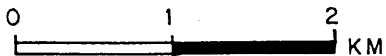
HISTORY

A clear and concise history of the exploration in the Toodoggone region, and in the area of the subject properties, is taken from Yeager and Ikona (Assessment Report on the Oxide Peak Property, 1986).

"The first known mining exploration activity in the area was placer mining in the Toodoggone River and



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PMA TECHNOLOGIES INC.

LAKE I to LAKE IV PROPERTY
TOODOGGONE RIVER AREA, OMINECA M.D.

CLAIM MAP

SCALE: As shown	DATE: Nov. 1988	N.T.S. 94E/11
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SORBARA GEOLOGICAL CONSULTING LTD

FIGURE No. 2

McClair Creek in the 1930's. Several lode prospecting ventures from that era succeeded in discovering high grade material at several localities in the Toodoggone district but unfavourable economic conditions precluded the development of the showings at that time. The importance of the discoveries was not recognized and their existence was soon forgotten.

In the late 1960's, modern exploration programs were carried out in the region searching for base metal porphyry deposits associated with alkalic intrusive systems. Following up on silt samples with anomalous base metal values led to the discovery on gold and silver mineralization by Kennco on the Chappelle property (later Baker Mine) and by Sumito (later Sumac Mines) on Albert's Hump. The early work done by these two companies drew attention to the area and led to the development by other companies of what are presently the three main properties in the region: Multinational's Baker Mine (Chappelle), SEREM's Lawyers deposit and Energex's Al deposits."

To date, little of the whole belt has been explored at depth. However, reserves of gold-silver mineralization have been indicated on seven different properties. Grades and tonnages of the best three are: Baker Mine - 52,000 tonnes at 1.07 oz/t Au and 23.20 oz/t Ag; Lawyers - 561,000 tonnes at 0.21 oz/t Au and 7.10 oz/t Ag; Al - 160,000 tonnes at 0.37 oz/t Au.

During the past five years numerous companies explored over 3,000 mineral claims units in the Toodoggone area.

In the 1960's Phelps Dodge held a large block of claims which may have partly overlapped the southern margins of the Lake III and Lake IV claims. No public record of the work done during this period is available.

Dr. D.L. Cooke (Report on the Lake I to IV Mineral Claims, Jan. 6, 1986) indicates:

" Reconnaissance work by the writer in the vicinity of Oxide Creek, which lies southwest of the Lake claims, indicated the presence of monzonite intrusive rocks containing pyrite and chalcopyrite. A large gossan has

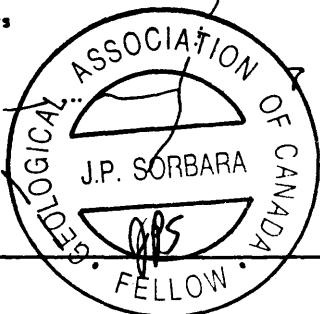
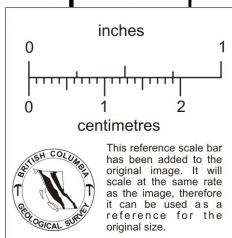
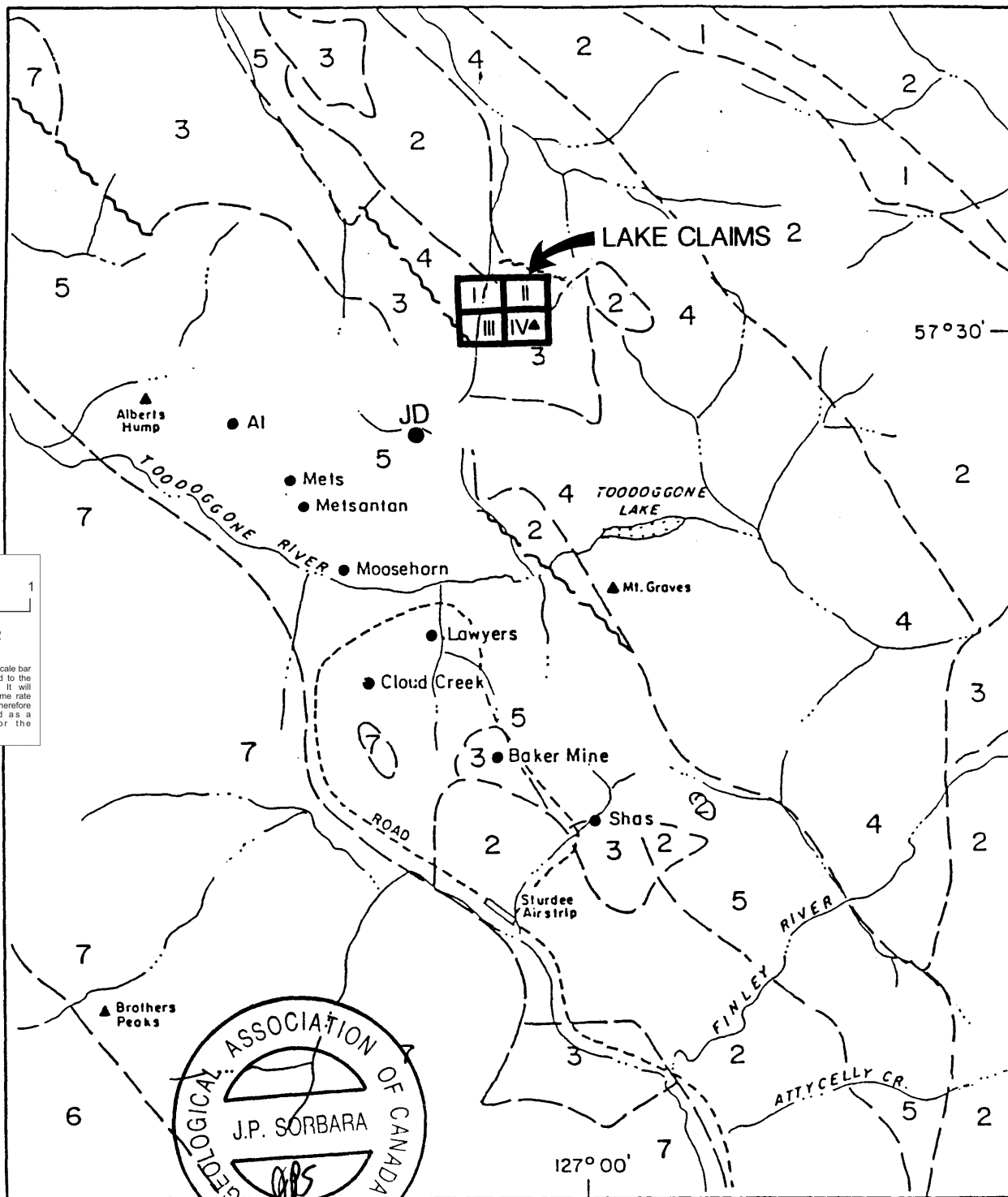
been developed along the margins of the intrusions on both sides of Oxide Creek. It extends as far north as the Belle #3 claim. Although rock and stream sediment samples from the area were assayed for copper and molybdenum, little attention was directed to analyses for gold during that earlier period. During 1977 Cominco Ltd. discovered stratabound base metal sulphides north of Contact Peak. This mineralization is now covered by the Lake I and II claims."

Approximately 265 line kilometers were flown during a regional magnetic and VLF-EM airborne survey (Western Geophysical Aero Data Ltd., 1986) over the PMA Technologies Inc. claims. Three major fault zones as well as several anomalous VLF-EM conductive areas were delineated by the geophysical airborne survey within the Lake I to IV claims. Additional geophysical ground surveying, soil geochemistry sampling and detailed geological mapping was highly recommended in the light of the results obtained during the 1986 airborne survey.

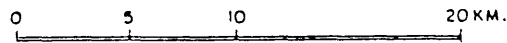
REGIONAL GEOLOGY AND MINERALIZATION

The regional geology of the Toodoggone River has been described in detail by T.G. Shroeter (1981) as follows:

" The Toodoggone River area lies within the eastern margin of the Intermontane Belt. The oldest rock exposed are wedges of crystalline limestone more than 150 meters thick that have been correlated with the Asitka Group of Permian Age. The next oldest rocks consist of andesitic flows and pyroclastic rocks including augite-tremolite andesite porphyries and crystal and lapilli tuffs that belong to the Takla Group of Late Triassic age. The Omineca intrusions of Jurassic and Cretaceous age (potassium-argon age of 186 to 200 Ma obtained by the Geological Survey of Canada) range in composition from granodiorite to quartz monzonite. Some syenomonzonite bodies and quartz feldspar porphyry dykes may be feeders to the Toodoggone rocks which unconformably overlie the Takla Group. The 'Toodoggone' volcanic rocks (named informally by Carter, 1971) are complexly intercalated



- 7 SUSTUT GROUP: Tertiary - Cretaceous
- 6 BOWSER GROUP: Middle - Late Jurassic
- 5 TOODOGGONE VOLCANICS: Early Jurassic
- 4 HAZELTON GROUP: Early Jurassic
- 3 TAKLA GROUP: Late Triassic
- 2 OMINECA INTRUSIONS: Late Triassic - Early Jurassic
- 1 ASITKA GROUP: Permian
- APPROX. GEOLOGICAL CONTACT
- ~~~~ FAULT
- MAJOR DRAINAGE
- MINERAL DEPOSIT



PMA TECHNOLOGIES INC.		
LAKE I to LAKE IV PROPERTY TOODOGGONE RIVER AREA, OMINECA M.D.		
REGIONAL GEOLOGY and MINERAL DEPOSITS LOCATION MAP		
SCALE: As shown	DATE: Nov. 1988	N.T.S. 94E/11
SORBARA GEOLOGICAL CONSULTING LTD		FIGURE No 3

volcanic and volcanic-sedimentary rocks of Early and Middle Jurassic age, 500 meters or more in thickness, along the west flank of a northwesterly trending belt of 'basement' rocks at least 90 kilometers in length by 15 kilometers in width (Geological Survey of Canada, Open File 306, replaced by Open Files 483 and 606). A potassium-argon age of 186 ± 6 Ma was obtained by Carter (1971) for a hornblende separate from a sample collected from a volcanic sequence 14 kilometers southeast of Drybrough Peak. Four principal subdivisions of 'Toodoggone' rocks have been recognized:

1) Lower volcanic division - dominantly pyroclastic assemblage including purple agglomerate and grey to grey to purple dacitic tuffs.

2) Middle volcanic division - an acidic assemblage including rhyolites, dacites, 'orange' crystal to lithic tuffs, and quartz feldspar porphyries; includes welded tuff. The 'orange' colour of the tuffs resulted from oxidation of the fine-grained matrix while the rock was still hot. A coeval period of explosive volcanism included the formation of 'laharic' units and intrusion of syenomonzonite bodies and dykes. This event was accompanied by explosive brecciation along the zones of weakness, predominantly large-scale faults and attendant splays, followed by silicification and deposition of precious and base metals to varying degrees in the breccias. Rounded fragments of Omineca intrusive rocks are rare components in Toodoggone tuffs.

3) Upper volcanic-intrusive division - grey to green to maroon crystal tuffs and quartz-eye feldspar porphyries.

4) Upper volcanic-sedimentary division - lacustrine sedimentary rocks (sometimes varved), stream bed deposits, and possible local fan conglomerate deposits and interbedded tuff beds.

Many Toodoggone rocks have a matrix clouded with fine hematite dust implying a subaerial origin, however, some varieties may have accumulated in shallow water. The host rock for mineralization (division 2) is an orange to chocolate brown-coloured crystal tuff with varying minor amounts of lithic and vitric ash. Broken crystals of plagioclase and quartz are set in a fine-grained 'hematized' matrix of quartz and feldspar. The exact chemical composition(s) and rock name(s) await chemical analyses. Carter (1971) determined the composition of a suite of rocks collected from the Toodoggone area to range from latites to dacites (less

than 30 weight per cent quartz); fused beads gave refractive indices between 1.505 and 1.535. Apatite may be a common accessory mineral.

To the west, Upper Cretaceous to Tertiary pebble conglomerates and sandstones of the Lower Tango Creek Formation of the Sustut Group (Eisbacher, 1971) unconformably overlie both Takla Group volcanic rocks and Toodoggone volcanic rocks.

The structural setting was probably the most significant factor in allowing mineralizing solutions and vapour to migrate through the thick volcanic pile in the Toodoggone area. The entire area has been subjected to repeated and extensive normal block faulting from Jurassic to Tertiary time. It is postulated that a northwesterly trending line of volcanic centres along a gold-silver-rich 'province' marks major structural breaks, some extending for 60 kilometers or more (for example, McClair Creek system, Lawyers system). Prominent gossans are often associated with structural zones but many contain only pyrite; sulphides occur as disseminations and fracture fillings in Toodoggone and Takla Group rocks. Thrusting of Asitka Group limestones over Takla Group rocks probably occurred during Middle Jurassic time.

Today Toodoggone rocks display broad open folds with dips less than 25 degrees. The Sustut Group sedimentary rocks have relatively flat dips and do not appear to have any major structural disruptions.

The Toodoggone area is host to many polymetallic mineral prospects and four main types are recognized:

1) 'Porphyry' copper+/-molybdenum+/-silver+/-gold - mainly associated with Omineca Intrusions. Chalcopyrite and pyrite, with or without molybdenite, occur in fractures, as disseminations, or in quartz veins within both intrusive and the host volcanic rocks (mainly Takla Group andesitic rocks). Secondary chalcocite and covellite may form layers up to 30 meters thick. In these 'porphyries', silver may exceed 3.1 grams per tonne (0.1 ounce per ton) and gold 0.47 gram per ton (0.015 ounce per ton) and therefore be economically significant [for example, Riga (MI 94E-3,4,5), Fin (MI 94E-16), Pillar (MI 94E-8), Rat (MI 94E-25), Mex (MI 94E-57), Kemess (94E-21)].

2) Skarn - contact of limestone and host rock resulting in formation of small bodies of magnetite, galena, and

sphalerite [for example, Castle Mountain (MI 94E-27) and several other minor showings west of Duncan Lake].

3) Precious and base metal epithermal - gold+/-silver+/-copper+/-lead+/-zinc

a) Fissure-vein type - the most important economic type. It is associated with predominantly silicified zones (quartz veins and/or older volcanic 'centres') related to repeated, extensive block faulting and possible tensional fractures formed during late doming. Large and small-scale faulting were integral processes in the sequential development of calderas formed by progressive emplacement and subsequent collapse of different phases of composite magmas (batholiths). So far, no distinct superimposed complex zones have been identified as isolated calderas in the Toadogone area. Many calderas have a moat structure around their periphery, which is infilled by lacustrine sedimentary and pyroclastic rocks, mainly volcanic ash, deposited penecontemporaneously in the moat. Local fanglomerate deposits form adjacent to the steeper walls away from tributary streams. In the Toadogone area, recurrent faulting during crater building would guide intrusions and the soft lacustrine sedimentary rocks may have an impermeable barrier to mineralizing solutions.

Principal ore minerals include fine-grained argentite, electrum, native gold, and native silver with minor amounts of chalcopyrite, galena, and sphalerite. Rare constituents include bornite, polybasite, stromeyerite, and secondary chalcocite and covellite. Gangue minerals include, in order of decreasing abundance: amethystine to white quartz, chalcedony, calcite, hematite, manganese oxide, and rare barite and fluorite. Deposits occur in the form of vein fillings, stockworks, irregular branching fissures, and large, recurrently brecciated fault zones. Common textures include comb structures, symmetrical banding, crustifications, and drusy cavities - all typical features of epithermal deposits formed at shallow depths and at low temperatures. Alteration is commonly restricted to vein systems [Chappelle (MI 94E--26), Lawyers (MI 94E-17), Metsantan Lake (MI 94E-35), McClair, Cliff Creek, Shas (MI 94E-50), Saunders (MI 94E-37)].

b) Hydrothermally altered and mineralized type - associated with major fault zones and possibly after subsidence of volcanic centres followed by a doming of caldera cores. Pyrite is the most common sulphide present with minor amounts of galena and sphalerite

and rare molybdenum and scheelite. This type is probably somewhat older or contemporaneous with fissure-type mineralization. Cauldron zones are strongly leached and sulfotatically altered to varying degrees to clay minerals and silica; some areas contain alunite (for example, Alberts Hump). Epidote is a common alteration mineral in both hydrothermal and fracture zones [for example, Kodah, Alberts Hump, Saunders (MI 94E-17), Chappelle (MI94E-26), Oxide].

- c) Alteration generally associated with the precious and base metal epithermal is as follows:
- i) Epidotization and silicification in the vicinity of quartz veins
 - ii) Laumontite in fractures
 - iii) Extensive pyritization
 - iv) Anhydrite as veinlets and fractures up to 70 meters or more long
 - v) Hematization near surface, and
 - vi) Carbonitization at depth.

4) Stratabound (?) - galena+/-sphalerite+/-chalcopryrite occur in or adjacent to limestone with interbedded chert in Takla Group (?) volcanic agglomerates and tuffs. This type of deposit, which may have been deposited on the flank of a volcano adjacent to a limestone reef, usually has associated low-grade silver values [for example, Firesteel (MI94E-2), Attycelley (MI 94E-22)]."

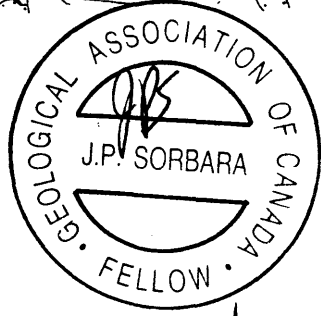
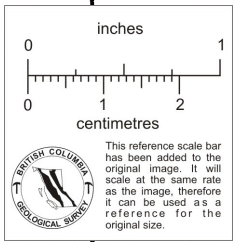
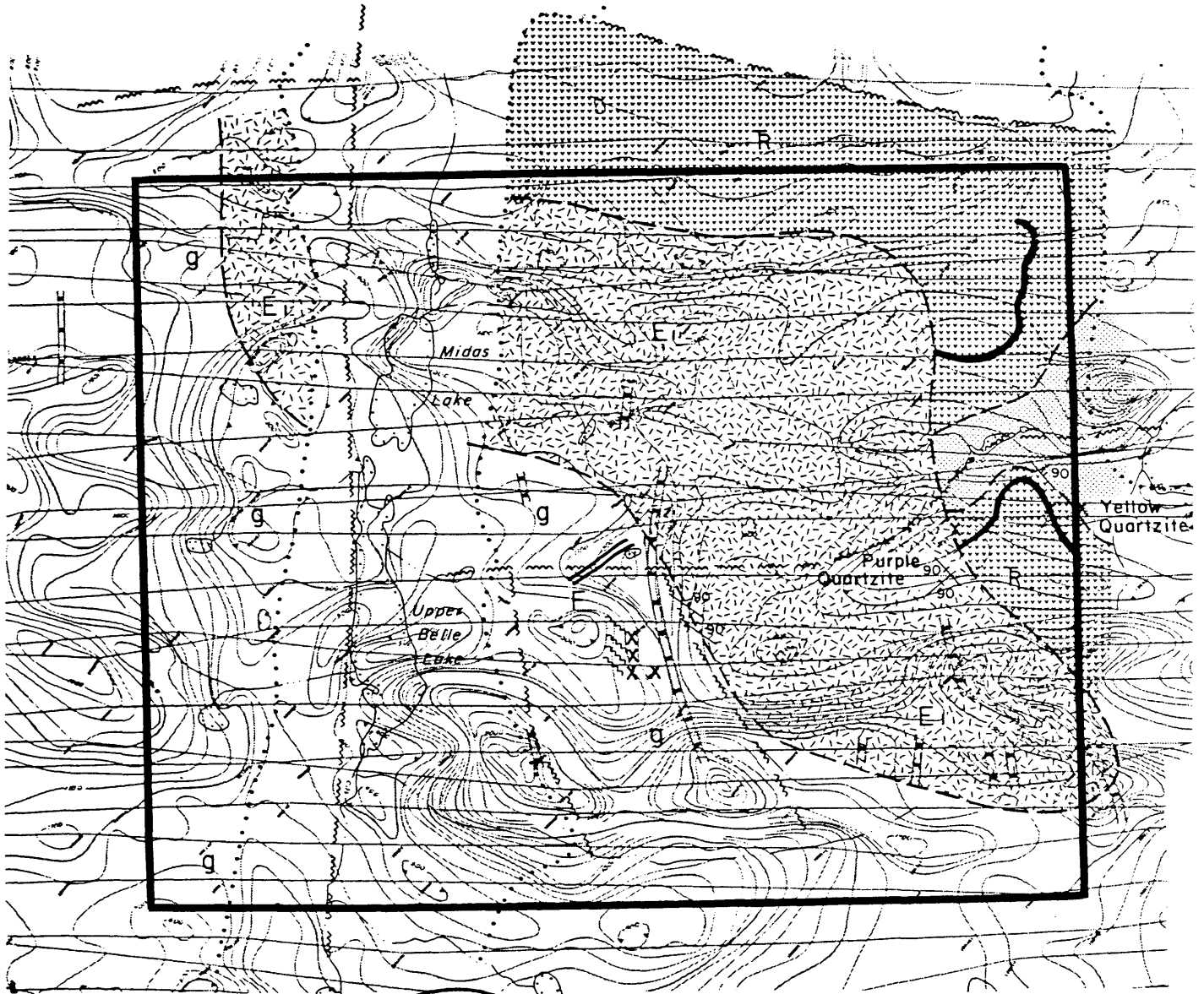
A program of mapping and trenching was conducted on the JD claims of Energex Minerals Ltd., located approximately 10 kilometers to the southwest of the Lake I-IV claims, during 1988. A low angled fault was mapped and sampled by Kidd Creek during 1982 to 1984, and assay values of up to 0.46 oz/t gold across 9.3 feet (Stockwatch, Aug. 26, 1988). In October, 1988 a thrust fault on the JD claim was extensively sampled and trenched over a strike length of 5,000 feet. This fault had previously been identified by coincident geophysical and geochemical anomalies. Values of up to 1.14 opt gold and 12.77 opt silver were recorded in trench samples (Stockwatch, Oct. 28, 1988).

PROPERTY GEOLOGY

The Lake I-IV claims are underlain by three major stratigraphic rock units (Figure 5). The Lake I, Lake III and the southern portion of the Lake II claims are predominantly underlain by the undivided rocks of Hazelton Group (Toodoggone volcanics). In the northeastern and eastern portion of the Lake II and a portion of the Lake IV claims, Takla group rocks outcrop and comprise limey sedimentary strata, laminated tuffaceous mudstones, rhyolites, cherts and tuffs. Elsewhere in the Toodoggone belt Talka Group volcanics are known to contain economic gold deposits, such as at the Baker Mine 25 kilometers to the south of the subject property.

On the east side of Midas Creek, an Omineca granodiorite intrusive (Jurassic age) cuts through the volcano-sedimentary complex. The same intrusion crosses Midas Creek just south of the property boundary with the Oro claims.

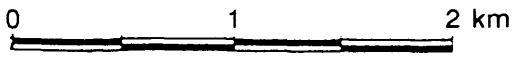
A major north-south striking fault, situated in the Upper Belle and Midas Lakes valley, cuts through the Lake I and III claims. Two additional fault structures were interpreted from the 1986 airborne geophysical survey by Bekdache and Seywerd (1987). These are an east - west fault crossing the northern perimeter of the claim group (concurrs with B.C. department of Mines mapping) and one striking eastward from Upper Belle Lake and across the northern portion of the Lake III and Lake IV claims. Most of the known vein-type precious metal deposits and occurrences in the Toodoggone area are adjacent to major northwest and north trending regional fault structures within the Toodoggone volcanics. Recently on the JD claims of Energex Minerals Ltd., 10 kilometers to the southwest of the subject property, gold and silver mineralization was discovered in



After Bekdache and Seywerd Report
on Lake I - IV Claims

LEGEND

- Mafic dike
- Granodiorite
- Volcanics, Toadoggone
- Basalt sill
- Ironstone
- Volcanics, Takla
- Quartzite outcrop
- Contact
- Fault
- VLF-EM conductor



PMA TECHNOLOGIES INC.		
LAKE I to LAKE IV PROPERTY TOODOGGONE RIVER AREA, OMINECA M.D.		
PROPERTY GEOLOGY		
SCALE: As shown	DATE: Nov. 1988	N.T.S. 94E/11
SORBARA GEOLOGICAL CONSULTING LTD		FIGURE No: 4

association with a flat lying thrust fault. This fault appears to be a regional feature located in the valley bottom on the JD claims (A. Birkeland, President of Energex Minerals, personal communication)

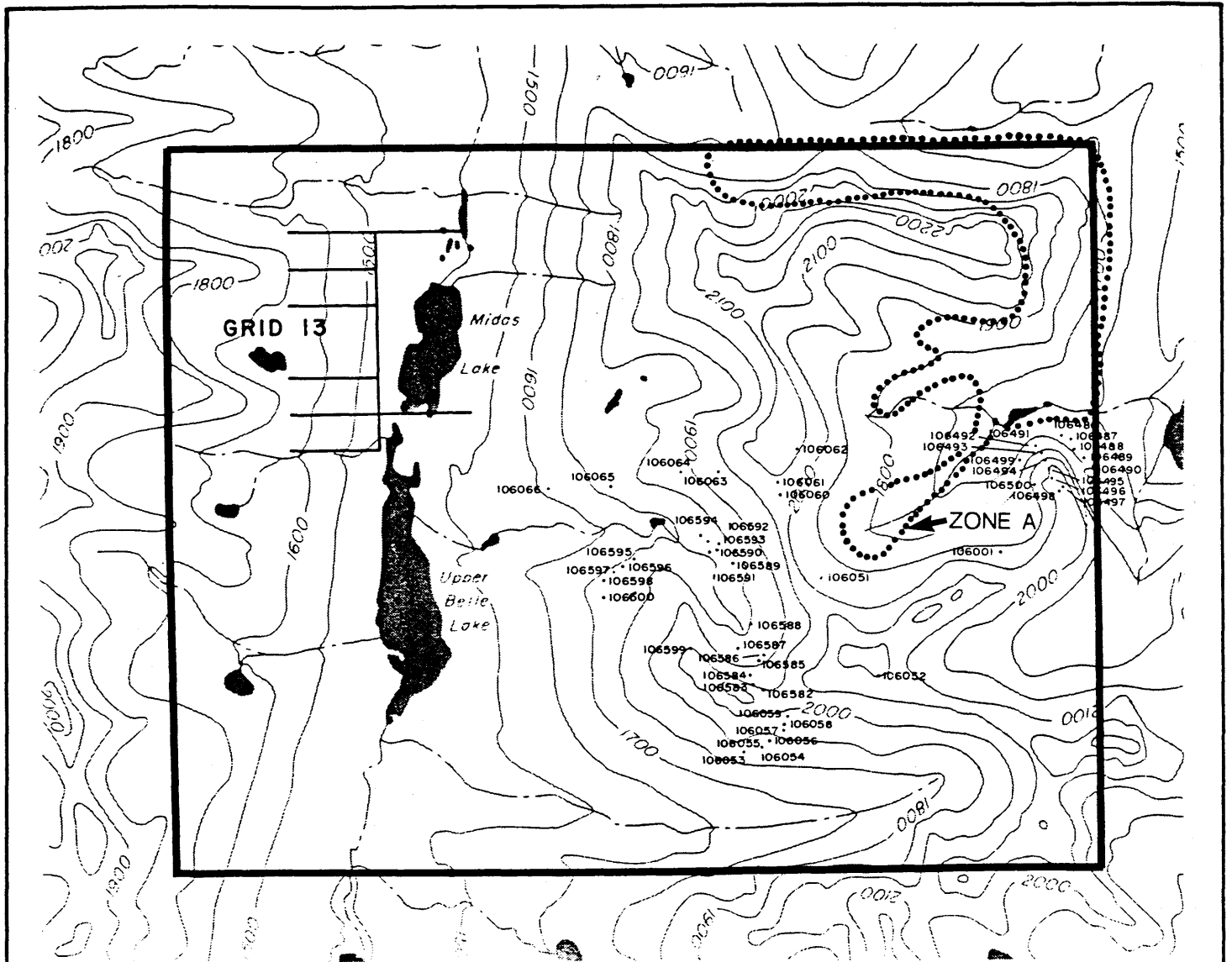
Bekdache and Seywerd (1987) report the presence of mafic dykes, up to 2 meters thick, which intrude the granodiorite and the surrounding units in the Lake IV and II claim area. They also mapped a basaltic sill and two ironstone (magnetite of Cooke, 1988) units in the same area.



GEOCHEMISTRY AND MINERALIZATION

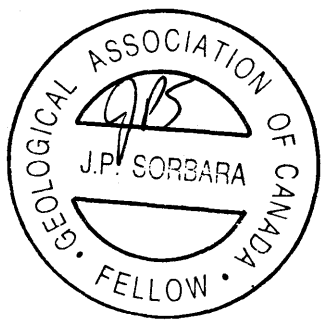
The Toodoggone area hosts at least four types of precious metal mineralization, the most common of which is epithermal in origin. The epithermal deposits occur as massive quartz veins and quartz-carbonate veinlets in fractured volcanics, such as at the Baker Mine, or as silicified and brecciated zones such as the Lawyers deposit.

Other important types of mineralization are the porphyry-type copper and gold, and the copper, silver, lead and zinc skarns associated with the Jurassic intrusives and gold silver mineralization in association with fracture and/or fault zones.

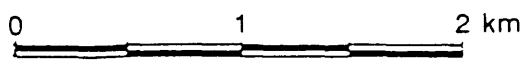
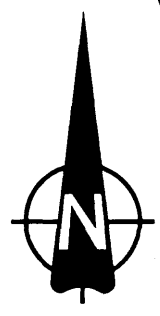
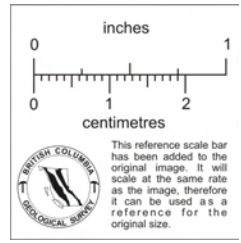
In 1977, stratabound base metal mineralization was identified during reconnaissance work carried out by Cominco north of Contact Peak in the area now occupied by the Lake I and II claims. Additional work conducted in 1985 delineated this approximately three kilometer long occurrence by prospecting and soil sampling (Bell, 1986). During the latter program 188 soils, 8 silts and 29 rock samples were collected. The bulk of this work was confined to the Lake II and IV claims. The mineralization consists of a skarn



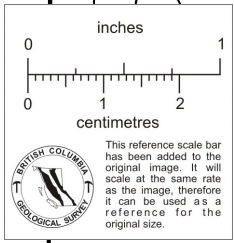
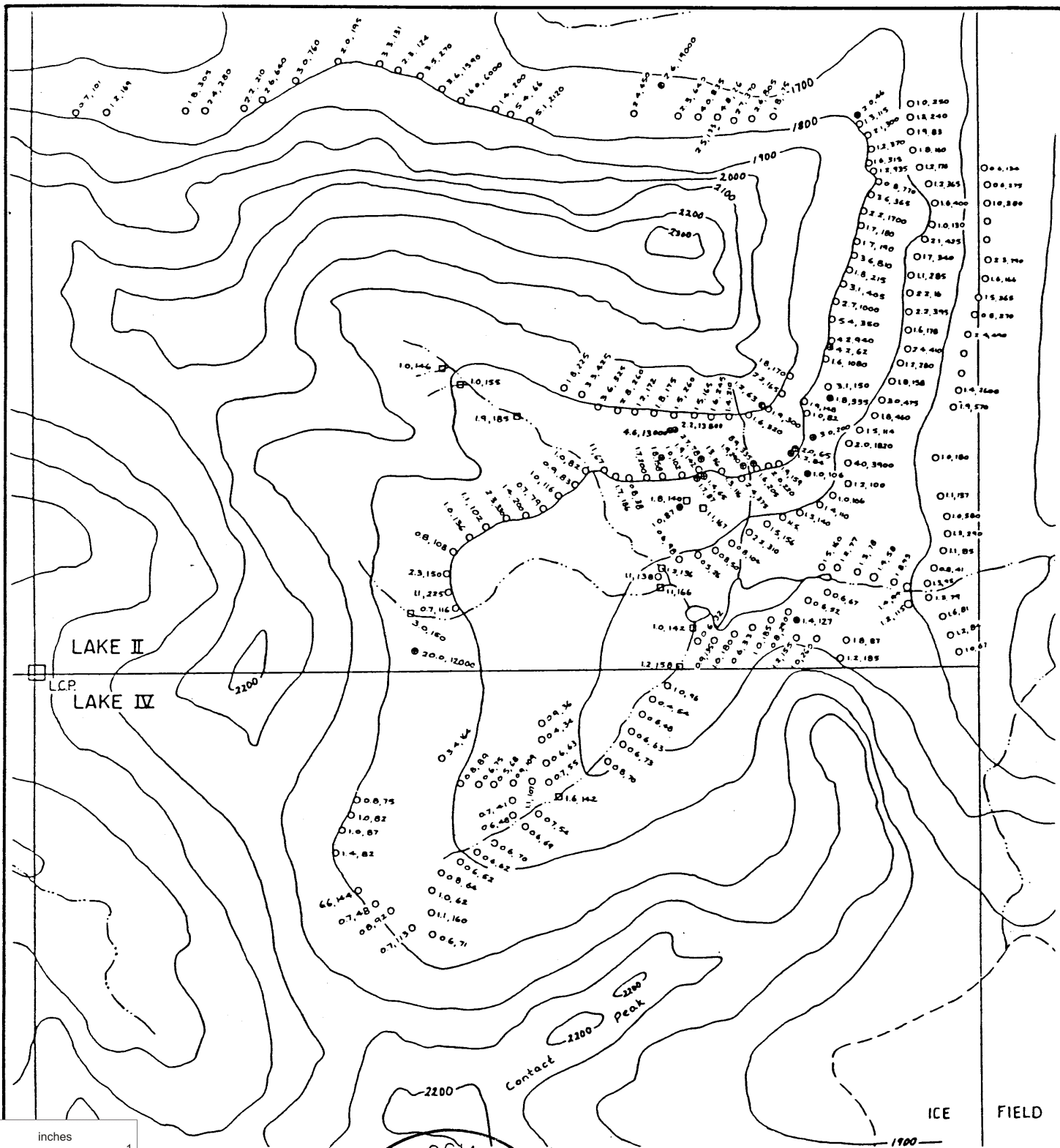
 1987 SOIL GRID
 1987 RGCK SAMPLE



After Bekdache and Seywerd Report
on Lake I - IV Claims



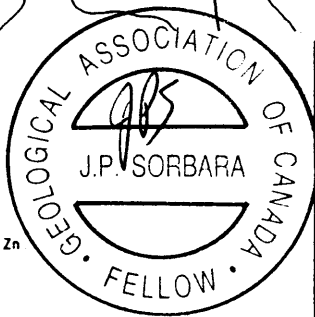
PMA TECHNOLOGIES INC.		
LAKE I to LAKE IV PROPERTY TOODOGGONE RIVER AREA, OMINACA M.D.		
PROPERTY GEOCHEMISTRY		
SCALE: As shown	DATE: Nov. 1988	N.T.S.: 94E/11
SORBARA GEOLOGICAL CONSULTING LTD		FIGURE No. 5



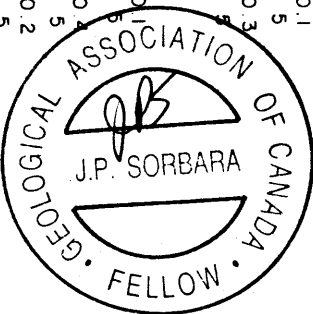
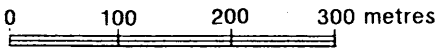
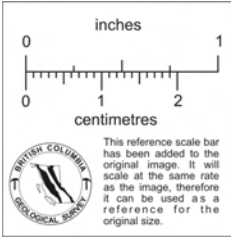
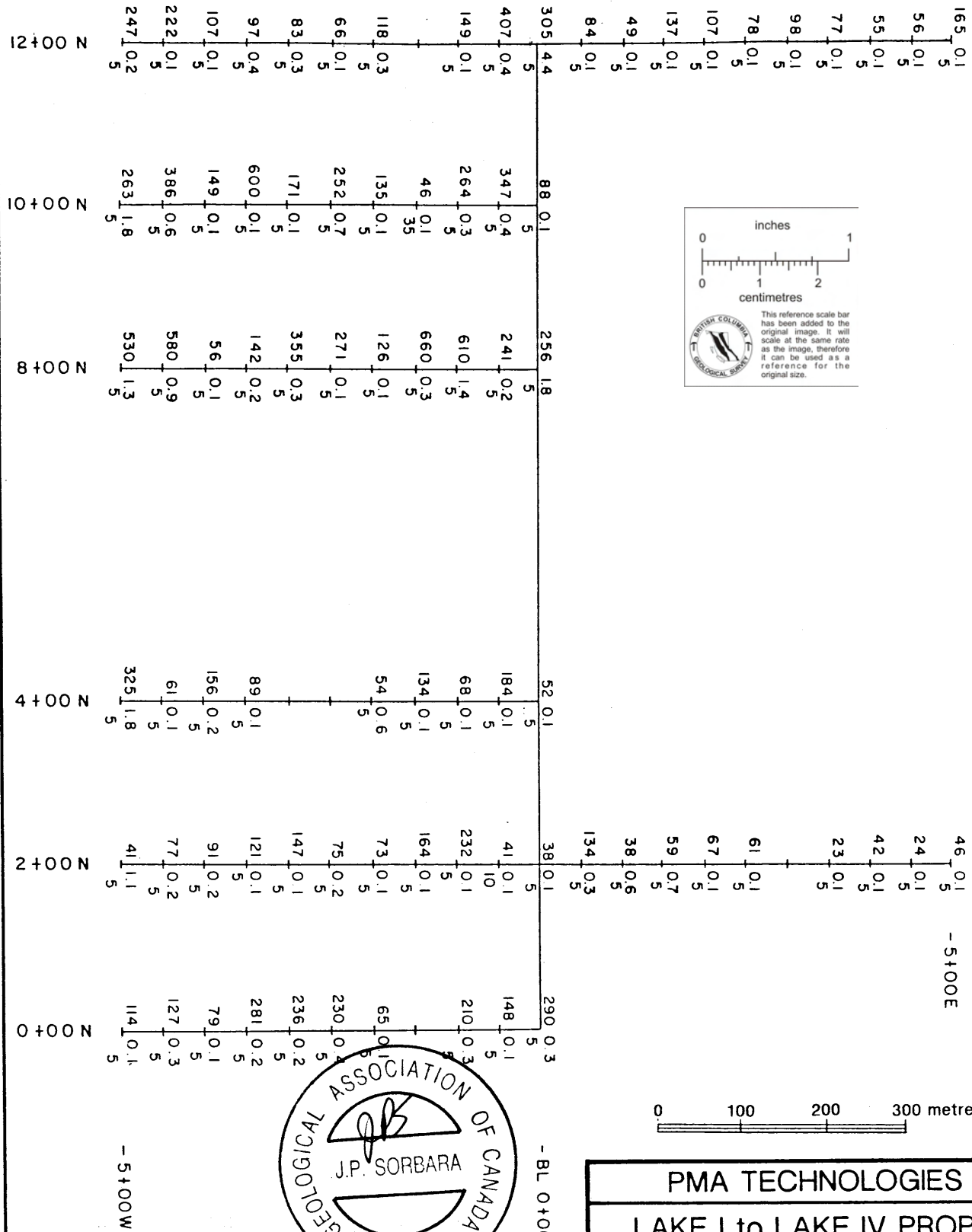
LEGEND

- SOIL SAMPLE
- ROCK CHIP
- SILT

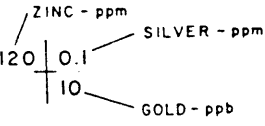
200, 12000 ● : 200 ppm Ag, 12000 ppm Zn



PMA TECHNOLOGIES INC.		
LAKE I to LAKE IV PROPERTY TOODOGGONE RIVER AREA, OMINECA M.D.		
PROPERTY GEOCHEMISTRY		
ZONE A		
SCALE: As shown	DATE: Nov. 1988	N.T.S.: 94E/11
SORBARA GEOLOGICAL CONSULTING LTD		FIGURE No: 5a



After Bekdache and Seywerd Report
on Lake I - IV Claims



PMA TECHNOLOGIES INC.		
LAKE I to LAKE IV PROPERTY TOODOGGONE RIVER AREA, OMINECA M.D.		
PROPERTY GEOCHEMISTRY GRID 13		
SCALE: As shown	DATE: Nov. 1988	N.T.S. 94E/11
SORBARA GEOLOGICAL CONSULTING LTD		FIGURE No: 5b

structure developed within limey layers of the Takla Group. Mineralization includes disseminated pyrite, pyrrhotite, sphalerite, chalcopyrite and arsenopyrite. Two chip samples returned 1.3% Zn, 2.2 gm/t Ag, 262 ppm Cu and 10 ppb Au over 5.7 meters and 2.5% Zn, 1.1 gm/t Ag, 176 ppm Cu and 10 ppb Au over 5 meters. Grab samples in the same area yielded assay values of up to 4.6% Zn, 4.30 g Ag/t and up to 100 ppb Au (Bell, 1986).

Silver values ranging from 0.4 to 16 ppm and zinc values of from 26 to 6000 ppm were detected in soil and silt samples (Bell, 1986). The threshold values for anomalous samples in the Toodoggone area are considered to be 2 ppm silver and 300 ppm zinc. Using these parameters the soil and silt samples recorded by Bell (1986) contained 46 samples anomalous in both zinc and silver. The samples were not analyzed for gold. All the available geochemical data and rock sample descriptions are presented in Appendix III.

Some of the anomalous values recorded by Bell (1986) occur in the skarn zone first discovered by Cominco Ltd. in 1977 but additional anomalous values were located extending to the south of this area and these appear to be related to a strataform type of mineralization (Figure 5)

In 1987, a small grid, termed Grid 13, was established over a portion of the Lake I claim by Bekdache and Seywerd (1987). Seventy-seven soil samples were collected in this area and analyzed for Au, Ag, Zn, Cu, Pb. Eleven of the samples were anomalous in zinc (>300 ppm), one yielded an elevated silver value (4.4 ppm), and two gold values of 10 and 35 ppb were recorded. One sample yielded an elevated value in both copper and lead (240 and 246 ppm respectively).

Bekdache and Seywerd (1987) also report assay values for 51 rock samples collected mainly on the Lake II and IV claims. The northeast corner of the Lake IV claim had not previously been sampled during the 1985 exploration program. Values of 60, 90, 350, 360, and 730 ppb gold and from 3,810 to 10,000 ppm copper were recorded from veins within granodiorite, ironstone (magnetite of Cooke, 1988), dykes and quartzite on the claim (Appendix III). This area is coincident with a major east-west trending fault which is interpreted from the 1986 airborne geophysical survey.

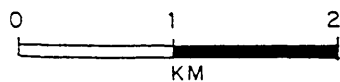
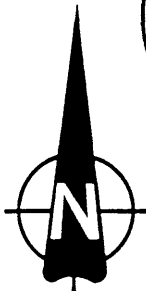
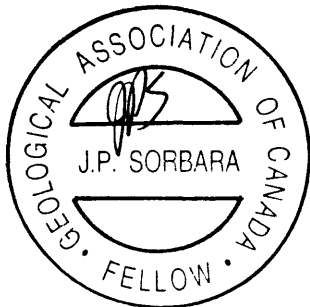
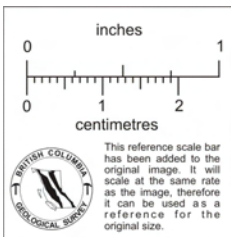
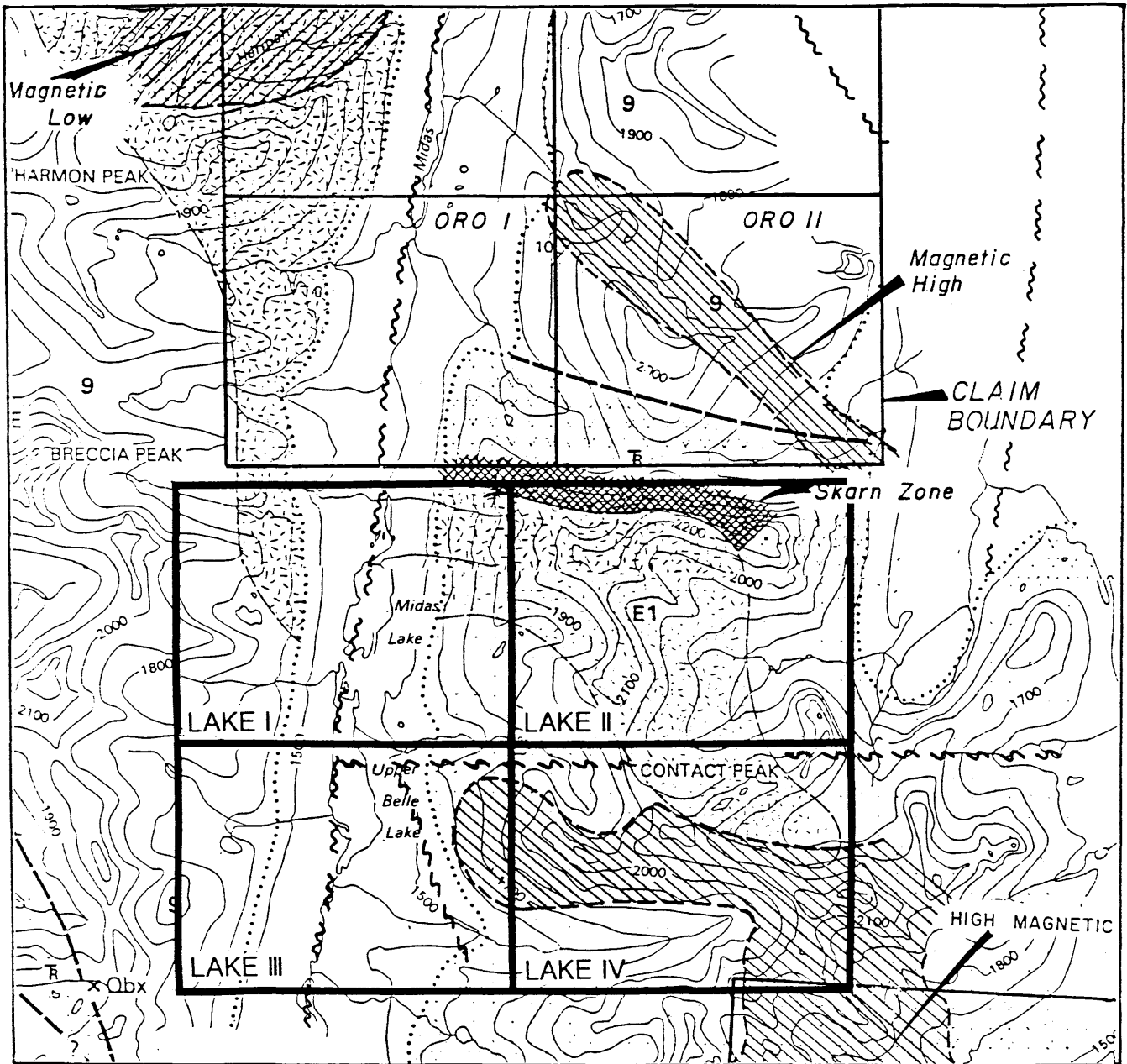
In the western portion of the Lake IV claim, south of areas previously sampled, three samples yielded values of 10 to 15 ppb gold (Sample Numbers 106586, 106583 and 106582).

No previous work is recorded from the major portion of the Lake III claim where three fault intersections are interpreted from the 1986 airborne geophysical survey. This area is likely to be a zone of fracturing and deformation that may host fault related mineralization similar to that recently discovered on Energex's JD claim.

PROPERTY GEOPHYSICS

The subject property's geophysics has been described by Pezzot and White (Geophysical Report on an Airborne VLF-Electromagnetometer and Magnetometer Survey, Lake I-IV Claims; May 30, 1986) in the following terms:

"A well defined magnetic low runs north-south through the centre of the Lake I and Lake III claims. It closely follows the Belle and Midas Creeks and delineates a major fault which separates Hazelton volcanic rocks to the west from Takla group rocks to the east. No magnetic intensity variations are observed which could be used to distinguish between the Hazelton and Takla rocks.



PMA TECHNOLOGIES INC.		
LAKE I to LAKE IV PROPERTY TOODOGGONE RIVER AREA, OMINECA M.D.		
GEOPHYSICS COMPILATION MAP		
SCALE: As shown	DATE: Nov. 1988	N.T.S. 94E/11
SORBARA GEOLOGICAL CONSULTING LTD		FIGURE NO. 6

Two major faults are interpreted on the bases of magnetic low lineations extending eastward from the Belle Creek fault. One is mapped along the northern claim boundary and lies close to a geologically inferred fault separating Takla group rocks from Hazelton volcanics. The second trend cuts across the northern portion of the Lake III and Lake IV claims. This trend roughly coincides with surface drainage systems which supports the fault interpretation, however no geological support is documented. [...]

Over the survey areas studied to date, Jurassic intrusive rocks are delineated by closed magnetic highs; generally circular or elliptically shaped in plan view. They often occur as parts of a regional trend and are usually associated with major fault zones. This type of magnetic response is observed on the Lake III and Lake IV claims. An east-west trending band of high magnetic intensities follows a topographic ridge across Lake IV claim and bends sharply to the south along the eastern claim boundary. Three strong magnetic highs are observed within this trend, possibly delineating intrusive plugs.

A second large magnetic high is located along the western borders of the Lake I and Lake III claims, following the topographic ridge paralleling Belle Creek. Localized highs within this zone do not reach the same amplitudes as those described above, although the interpretation of intrusive activity is still considered valid.

A third magnetic high trend is observed striking east-west across the Lake II claim. The background magnetic intensity of this response is approximately 200 to 300nT lower than that defining the two previously mentioned trends, however localized anomalies within the zone reach the lower limits of magnetic intensity elsewhere defining intrusive activity. Of particular note are two small highs located at either end of the east-west trend. This anomaly generally correlates with the area of a silver and zinc mineralized, laminated, limey tuffaceous bed defined by the 1985 soil geochemistry program. Abundant skarn mineralization is reported along this trend, however no documentation or maps are available to confirm its' location.

[...] Three areas within the claim group contain anomalous VLF-EM responses. Discreet north-south trending conductor axes are mapped in the northwest corner of the Lake I claim and along the eastern border of the Lake IV claim. These responses ariginated from

narrow, near surface conductors and should be identifiable by normal ground prospecting and mapping techniques. The east-west trending ridge centered on the Lake II claim reflects an overall increase in the amplitude of the VLF-EM signal. This type of response is typically attributed to an increase in the general near surface conductivity and likely reflects overburden or lithological changes.

In the light of the above results, it appears that a very interesting portion of Lake III claim has not been thoroughly investigated. The intersections of an east-west trending fault, running parallel to the Lake I and Lake III claim boundary, with the major north-south Belle Creek fault and with the roughly north-south trending fault east of the Belle Creek fault, seem to be likely exploration targets for hosting precious metal mineralization. Approximately 10 kilometers to the southwest, several very interesting diamond drill intersections were recorded on Energex's JD claims as well as trench samples which assayed up to 1.14 oz/t Au and 12.77 oz/t Ag. These results were obtained in a thrust fault related geological setting which is believed to be similar to the one underlying the Belle Creek valley.

CONCLUSIONS

The area of the subject properties has been explored intermittently for base metals since the 1930's. Exploration work in the Toodoggone Region since the 1960's has led to the discovery of three main mineral deposits: the Baker Gold Mine (pre-production reserves of 100,000 tons at 0.92 oz Au/t), the SEREM's Lawyers deposit (pre-1985 reserves estimated of 1.035 million tons at 0.21 oz Au/t and 7.58 oz Ag/t) and the Energex's A1 property (reserves estimated at 264,000 tons "open-pittable at 0.248 oz Au/t).

Mineralization in the Toodoggone Gold Belt is represented by four main mineral deposit types:

- **Porphyry** - mainly associated with Omineca intrusions.
- **Skarn** - contact of limestone and intrusive rock.
- **Stratabound** - occurring in or adjacent to limestone with interbedded chert.
- **Epithermal** - occurring mostly in Toodoggone and Takla Volcanics and sometimes hosted within fault and fracture zones.

The Lake I-IV claims are underlain by volcanic and sedimentary rocks of both the Takla and Hazelton Groups which are intruded by an Omineca granodiorite intrusive. A major north-south striking fault, situated in the Upper Belle and Midas Lakes valley, cuts through the Lake I and III claims. Two additional fault structures were interpreted by Bekdache and Seywerd (1987) on other parts of the property. One of these faults, located on the northeast corner of the Lake IV claim, is coincident with anomalous geochemical values of up to 730 ppb gold and 10,000 ppm copper.

In 1977, stratabound base metal mineralization was identified during reconnaissance work carried out by Cominco in the area now occupied by the Lake I and II claims. Additional work conducted in 1985 and 1987 confirmed the presence of the skarn zone and outlined additional area to the south which contained anomalous values of up to 730 ppb gold and 10,000 ppm copper. Samples from a small grid on the Lake I claim did not outline any anomalous zones.

The main economic mineralization type identified in the Toodoggone area consists of epithermal precious metal and base metal deposits which are principally hosted by lower and middle units of the Toodoggone volcanics. Most of the known vein-type precious metal deposits and occurrences in

the Toodoggone area are adjacent to major northwest and north trending regional fault structures within the Toodoggone volcanics. Recently, thrust fault related gold and silver mineralization has been discovered on Energex's JD claims, located approximately 10 kilometers to the southwest of the subject property.

Little attention has been given to the projected zones of intersection of the major faults, on the subject property, which would be favourable sites for the localization of epithermal type mineralization within the Toodoggone volcanics. The deformation and fracture networks commonly associated with such zones would provide ideal sites for fissure vein-type epithermal mineralization and hydrothermal alteration. One of these interpreted fault intersection zones occurs on the Lake III claim.

In the light of the results obtained on the PMA Technologies Inc. claims, the writers believe that the Lake I to Lake IV property has good potential for hosting skarn and fault zone related epithermal precious metal mineralization.

RECOMMENDATIONS

Based on the results of the airborne geophysical survey, the geochemical sampling programs and on the geological setting of the subject property, the writers conclude that the Lake I to IV claims have the potential to host precious metal and base metal mineralization similar to the other deposits and recent showings found in the Toodoggone area.


In order to fully evaluate the mineral and economic potential of the subject property a multi-phase exploration work is highly warranted and recommended by the authors.

Phase I should consist of additional geophysical ground surveying (Magnetometer, VLF-EM and UTEM), detailed geological mapping, lithogeochemical sampling and limited trenching, especially over the interpreted zones of fault intersections delineated during the 1986 regional airborne survey. The southern claim area should be investigated in detail for a possible extensions of the skarn zone and to sample in detail the interpreted positions of fault intersections and traces. All of the samples collected should be analysed for Au, Ag, Cu, Pb, Zn, As, Sb and Ba.


Dependant upon positive results of Phase I and upon a review of the data, a diamond drilling program should be designed to test the geometry and grade characteristics of any identified mineralization.

A cost estimate for the recommended Phase I and II program is given in Appendix I.

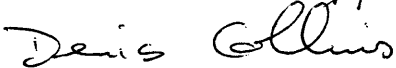
Respectfully submitted,
SORBARA GEOLOGICAL CONSULTING LTD.



J. PAUL SORBARA, M.Sc., F.G.A.C.

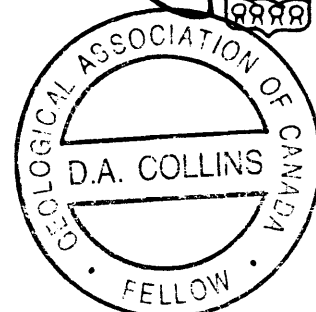
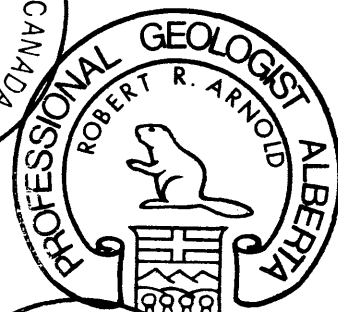
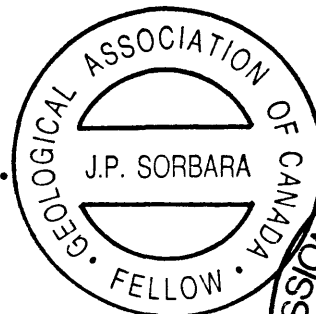


ROBERT R. ARNOLD, M.Sc., P.Geol., F.G.A.C.



DENIS A. COLLINS, B.Sc., Ph.D., F.G.A.C.

NOVEMBER 27, 1988



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APPENDIX I

ESTIMATED COST OF PROPOSED PROGRAM

ESTIMATED COST OF PROPOSED PROGRAM

PHASE I:

Personnel:

Project Geologist (16 days @ \$300.00/day)	\$	4,800.00
1 Technicians (16 days @ \$250.00/day)	\$	4,000.00
Cook (16 days @ \$250.00/day)	\$	4,000.00
Senior Geologist (3 days @ \$400.00/day)	\$	1,200.00

Domicile

Camp Costs (16 days @ \$150.00/day)	\$	2,400.00
Food (98 man-days @ \$30.00/day)	\$	2,940.00

Geophysics (including Operator)

Magnetometer Total Field and Vertical Gradient Survey (20 km @ \$200.00/km)	\$	4,000.00
VLF-EM Survey (2 Channels) (20 km @ \$200.00/km)	\$	4,000.00
Utem Survey (20 km @ \$950.00/km)	\$	19,000.00

Trenching \$ 5,000.00

Flight Support

Fixed Wing	\$	7,000.00
Helicopter (18 hours @ \$660.00/hour)	\$	11,800.00

Geochemical Sampling and Shipping

Assays (Au by F.A. & 7 elements by ICP) 150 samples @ \$15.50/sample	\$	2,325.00
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Mobilization/Demobilization \$ 15,000.00

Project Preparation \$ 2,000.00

Assessment Requirements and Filing \$ 1,500.00

Accounting Costs, Communications and Freight \$ 2,500.00

Report Compilation and Drafting \$ 5,500.00

Contingencies \$ 9,500.00

Total Phase I \$ 108,465.00

PHASE II:

The exact cost of Phase II is difficult to estimate at the present time because it will depend of how many targets are generated in Phase I. Diamond drilling and helicopter support would be the most costly components of this work. A reasonable cost for Phase II would be in the order of \$350,000.00.

APPENDIX II

STATEMENTS OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, J. PAUL SORBARA, of 6703 Nicholson Road, in the Municipality of Delta, in the Province of British Columbia, hereby certify:

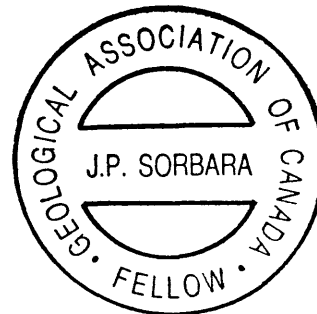
1. THAT I am a geologist residing at 6703 Nicholson Road, in the Municipality of Delta, in the Province of Bristish Columbia.
2. THAT I graduated with a B.Sc. in geology from the University of Toronto, in the City of Toronto, in the Province of Ontario, in 1976, and with a M.Sc. in geology from the University of Toronto in 1979.
3. THAT I have practiced geology professionally from 1979 to 1988, including 5 years as an Exploration Geologist with Cominco Ltd.
4. THAT I am a registered Fellow of the Geological Association of Canada.
5. THAT this report is based upon a thorough review of published and printed reports and maps on the subject property and the surrounding area.
6. THAT I have not received, nor do I expect to receive any direct or indirect interest in the PMA Technologies Inc. Mineral Claims which are the subject of this report, or any other claims within a radius of 10 kilometers.
7. THAT I do not have, nor do I expect to receive any direct or indirect interest or securities in PMA Technologies Inc.
8. THAT I consent to the use of this report in a Prospectus or Statement of Material Facts for the purpose of a private or public financing.

SIGNED: _____

J. Paul Sorbara

J. PAUL SORBARA, M.Sc., F.G.A.C.

November 27, 1988

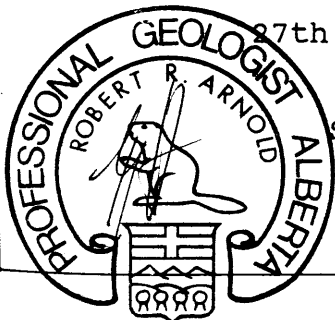


STATEMENT OF QUALIFICATIONS

I, ROBERT R. ARNOLD, of 1227 Caledonia Avenue, in the District of North Vancouver, in the Province of British Columbia, hereby certify:

1. THAT I am a geologist residing at 1227 Caledonia Avenue, in the City of North Vancouver, in the Province of British Columbia.
2. THAT I obtained a Bachelor of Science degree in Geology from the University of Geneva, in the City of Geneva, Switzerland, in 1976 and a Master of Science degree in Geological Engineering, from the same university in 1978.
3. THAT I am a Registered Professional Geologist, in good standing, of the Association of Professional Engineers, Geologists and Geophysicists of Alberta since 1981.
4. THAT I am a Fellow Member of the Geological Association of Canada, in good standing since 1985. That I am an associate member of the Mineralogical Association of Canada and of the Society of Economic Geologists.
5. THAT I have been practising my profession as a geologist in Western Europe, West Africa, Southeast Asia and North America, both permanently since 1978 and seasonally since 1971.
6. THAT this report is based upon a thorough review of published and printed reports and maps on the subject property and the surrounding area. However, I have not visited the property reported on herein.
7. THAT I have not received, nor do I expect to receive any interests, direct or indirect, or contingent in the securities or properties of PMA Technologies Inc. and that I am not an insider of any company having interest in the Mineral Claims which are the subject of this report, or any other claims within a radius of 10 kilometers.
8. THAT I consent to the use of this report in a Prospectus or Statement of Material Facts for the purpose of a private or public financing.

Dated in North Vancouver, British Columbia, this
27th day of November, 1988.



SIGNED :

Robert R. Arnold, M.Sc., P.Geol., FGAC.

SORBARA GEOLOGICAL CONSULTING LTD.

STATEMENT OF QUALIFICATIONS

I, DENIS A. COLLINS, of the City of Vancouver, Province of British Columbia, hereby certify:

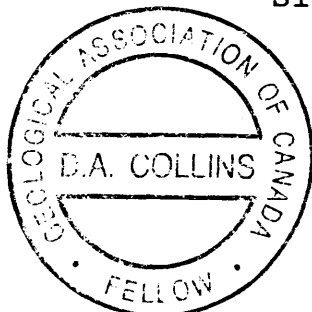
1. THAT I am a geologist residing at 122 West 12th Avenue, Vancouver, British Columbia, Canada, V5Y 1T7.
2. THAT I obtained a Bachelor of Science degree in Geology from the University College Cork, Ireland in 1980 and a Ph.D. in Structural Geology from the same university in 1985.
3. THAT I have been practising my profession as a geologist in Ireland, South Africa and Canada since 1980.
4. THAT this report is based upon a thorough review of published and printed reports and maps on the subject property and the surrounding area. However, I have not visited the property reported on herein.
5. THAT I have no interest in the property described herein, nor in securities of any company associated with the subject property, nor do I expect to receive any such interest.
6. THAT I consent to the use of this report in a Prospectus or Statement of Material Facts for the purpose of private or public financing.

Dated in Vancouver, British Columbia, this 27th day of November, 1988.

SIGNED :

Denis Collins

Denis A. Collins, B.Sc., Ph.D., FGAC



APPENDIX III

FIELD AND ANALYTICAL DATA FOR GEOCHEMICAL SAMPLES

MINERALIZATION ANOMALY TABLE

SAMPLE #	LOCATION	ppm Cu	ppm Ag	ppm Zn	ppb Au
106001	E. Ridge	10000	34	230	70

TYPE DESCRIPTION, HOST ROCK SPECIAL INFORMATION
Vein of py-cpy, granodiorite; near two crossing dikes.

SAMPLE #	LOCATION	ppm Cu	ppm Ag	ppm Zn	ppb Au
106487	E. Ridge	8000	8.1	352	60

TYPE DESCRIPTION, HOST ROCK SPECIAL INFORMATION
Vein of py-cpy, feldsparphyry; crack near dike of two meters thick.

SAMPLE #	LOCATION	ppm Cu	ppm Ag	ppm Zn	ppb Au
106497	E. Ridge	3810	2.3	273	350

TYPE DESCRIPTION, HOST ROCK SPECIAL INFORMATION
Rock sample; Ironstone bed.

SAMPLE #	LOCATION	ppm Cu	ppm Ag	ppm Zn	ppb Au
106498	E. Ridge	180	1	192	360

TYPE DESCRIPTION, HOST ROCK SPECIAL INFORMATION
Rock sample; Ironstone bed.

SAMPLE #	LOCATION	ppm Cu	ppm Ag	ppm Zn	ppb Au
106499	E. Ridge	10000	32	212	730

TYPE DESCRIPTION, HOST ROCK SPECIAL INFORMATION
Vein pyrite-chalcopyrite; quartz vein near the ironstone bed.

SAMPLE #	LOCATION	ppm Cu	ppm Ag	ppm Zn	ppb Au
106500	E. Ridge	6020	6.3	91	90

TYPE DESCRIPTION, HOST ROCK SPECIAL INFORMATION
Rock sample; boulder of quartzite near similar quartzite outcrop.

SAMPLE #	LOCATION	ppm Cu	ppm Ag	ppm Zn	ppb Au
106060	W. Ridge	23	0.1	66	40

TYPE DESCRIPTION, HOST ROCK SPECIAL INFORMATION
Rock sample; granodiorite near porphyry dike.

SAMPLE #	LOCATION	ppm Cu	ppm Ag	ppm Zn	ppb Au
106083	W. Ridge	161	1.4	154	15

TYPE DESCRIPTION, HOST ROCK SPECIAL INFORMATION
Volcanic rock sample; near quartzite outcrop.

SAMPLE #	LOCATION	ppm Cu	ppm Ag	ppm Zn	ppb Au
106596	W. Ridge	6	2	10	5

TYPE DESCRIPTION, HOST ROCK SPECIAL INFORMATION
Quartzite rock sample near open subvertical open fault.

APPENDIX II

Rock Sample Descriptions - Lake Claims


LC85-024			description not available
LC85R202	-	talus	- feldspar porphyry breccia
LC85R204	-	talus	- chert with minor pyrite
LC85R239	-	talus	- quartz vein with galena and chalcopyrite
LC85R241	-	outcrop	- rusty weathering chert with pyrite
LC85R242	-	outcrop	- calcite vein with minor pyrite
LC85R243	-	outcrop	- altered limestone, rusty weathering
LC85R244	-	outcrop	- limestone with minor pyrite
LC85R245	-	talus	- limestone with minor sphalerite
LC85 401	-	talus	- sugary quartzite
LC85 403	-	talus	- rusty feldspar porphyry
LC85 404	-	talus	- feldspar porphyry with 0.5% chalcopyrite
LC85 408	-	outcrop	- rusty feldspar porphyry
LC85 423	-	talus	- very rusty with pyrite and chalcopyrite
LC85 424	-	outcrop	- calc-silicate rock
LC85 425	-	outcrop	- feldspar porphyry
LC85 426	-	outcrop	- very rusty rock with pyrite and sphalerite
LC85 427	-	outcrop	- very rusty rock with malachite
LC85 428	-	outcrop	- black, fine grained greywacke
LC85 429	-	outcrop	- chert, minor pyrite
LC85 BD 603	RK		- Description not available
LC85 BD 634	RK		- Description not available
LC85 BD 639	RK		- Description not available
85-1-#751			- Description not available
85-1-#752			- Description not available
85-1-#756			- Description not available

CERTIFICATE

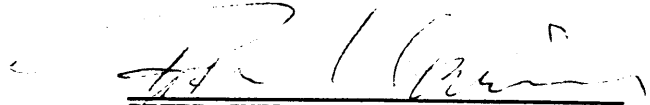
DATED August 18, 1989

The foregoing constitutes full, true and plain disclosure of all material facts relating to the securities offered by this prospectus dated March 17, 1989 as amended August 18, 1989 as required by the Securities Act and its regulations.

PMA RESOURCES INC.

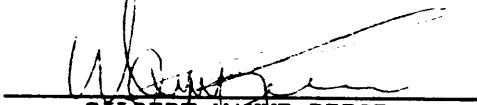


HOWARD GORDON ANDERSEN
Chief Executive Officer,
Promoter and Director



PETER JUERGEN KARIUS
Chief Financial Officer
and Director

ON BEHALF OF THE BOARD OF DIRECTORS



GILBERT WAYNE REESE,
Director

CERTIFICATE OF THE AGENT

DATED August 18, 1989

To the best of our knowledge, information and belief, the foregoing constitutes full, true and plain disclosure of all material facts relating to the securities offered by this prospectus dated March 17, 1989 as amended August 18, 1989 as required by the Securities Act and its regulations.

YORKTON SECURITIES INC.

Per: _____



DONALD RISLING