

REPORT
ON THE EVALUATION OF
FURTHER PRODUCTION POTENTIAL
AT
NORTHAIR MINES LTD.'S
BRANDYWINE MINE
AND
AN EXPLORATION BUDGET

SUBMITTED BY:

ADTEC MINING CONSULTANTS INCORPORATED
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June 16, 1983

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SUMMARY:

Present ore reserves at the Brandywine property of Northair Mines Ltd. consist of 51,968 tons grading 0.259 oz/ton gold, 0.72 oz/ton silver, plus approximately 2 percent lead and zinc.

The possibilities of increasing the ore reserves along strike of the present mine, at depth, appear to be excellent.

The underground equipment, 300 tpd mill and surface facilities, are all in well-maintained condition and will be put on-stream if additional ore is discovered.

An exploration budget of \$1,000,000 is recommended, to be spent almost entirely on underground lateral development and diamond drilling to improve the present ore reserves picture.

INTRODUCTION:

Northair Mines Ltd. operated a successful gold mining operation at its Brandywine property beginning in April 1976 and continued in full operation until 1982, when gold prices fell below \$300.00 U.S. The low gold prices convinced the directorship that the operation would be best served by a temporary shutdown. During its operating years the mine produced 543,000 tons grading 0.338 oz/ton gold, 1.838 oz/ton silver, 1.22% lead and 1.77% zinc. Mill recoveries steadily improved throughout the mine life to 95% for gold in the final year of operation.

In May, 1983 the writer having been directly associated with the mining operation during its first four years of operation, was asked to re-evaluate past exploration programs and data with the aim of determining whether or not there was adequate likelihood of finding additional economic mineralization within the property boundaries. An evaluation of the data available indicates that in the latter years of operation a very conservative approach was taken in underground exploration. (Consequently it has been indicated that the chances of improving the ore reserves within the immediate mine area are excellent.)

For the above reasons an exploration program has been outlined with the emphasis on underground exploration within the immediate mine area, rather than surface exploration further afield.

PROPERTY:

The Brandywine property of Northair Mines Ltd., consisting of nine mineral claims and one production lease, is located seventy miles north of Vancouver, B. C. at 50° 07' North latitude and 123° 07' West longitude (NTS map No. 92J/3E). It consists of a mine and 300 tpd flotation mill, which have been in a state of production inactivity since mid-1982.

The property is wholly-owned by Northair Mines Ltd. and consists of the following claims:

CLAIM	UNITS	RECORD NO.	DUE DATE
Northair 1	20	747	Aug. 11, 1986
Northair 2	15	748	Aug. 11, 1986
Northair 3	15	749	Aug. 11, 1985
Northair 4	15	750	Aug. 11, 1987
Northair 5	15	751	Aug. 11, 1985
Northair 6	16	752	Aug. 11, 1986
Northair 7	10	753	Aug. 11, 1984
BN 1	12	732	Aug. 11, 1983
BN 2	9	733	Aug. 11, 1983
Prod. Lease #P-1		6013	Jan. 17, 1984

(for tax assessment purposes only)

The claims cover an area some 7.5 km (4.5 mi.) by 5 km. (3 mi.), to the east of Callaghan Creek. They vary in elevation from 670 meters (2200 ft. ASL) to 1700 meters (5500 ft. ASL).

The climate is coastal type. Annual precipitation averages over 200 cms/yr. (80 inches), with annual snowfall varying between 3 meters (10 ft.) and 15 meters (50 ft.). The climate is mild with temperature readings averaging -5°C (24°F) in January and 17°C (63°F) in July. Vegetation varies with elevation. Heavy economic stands of douglas fir and red cedar are logged at the lower elevations while vegetation on the summit is alpine type. The terrain is moderately steep.

ACCESS:

Access to the property may be gained by standard automobile by travelling 70 miles north from Vancouver along Highway 99 to Callaghan Creek, and then on gravel road for an additional five miles to the main mine complex.

GEOLOGY:

In general the area is underlain by Mesozoic volcanics of andesitic origin, with some intrusions of granitic stocks.

Three separate ore zones have been developed and mined at the Brandywine property. These are all located within volcanics and are of the vein type. These appear to have once been part of the same structure but have been offset from each other by series of crosscutting faults. The economic minerals include gold, silver, lead and zinc and are found within steeply dipping quartz-carbonate veins.

The ore zones include the Discovery (mainly base metals with minor gold values), the Warman (gold and base metals with minor silver values) and the Manifold zone (silver with some gold and minor base metals). The Discovery zone has been delimited at depth, the Warman zone is still open at depth and to the east, while the Manifold zone has been delimited at intermediate depth, but may re-occur to the east at depth.

MINE DESCRIPTION & HISTORY:

The discovery of the Brandywine property was the result of systematic scientific prospecting carried out by a dentist-pro prospector, Dr. M. Warshawski, and a technical minerals industry professor, Mr. A. Manifold.

Using a field kit for heavy metals testing of stream samples, the first anomalous conditions were detected in 1969. In 1970 the source of the anomaly was traced to the area of the Discovery zone. In 1971 this zone was located in place, and continued prospecting revealed the Manifold zone, some 4000 feet to the southeast. McIntyre Porcupine Mines optioned the property late that year and in 1972 soil sampling results were plotted which indicated sporadic continuity between the two zones.

When the option was dropped in September, 1972 it was acquired by Northair. A diamond drill program that winter provided strong encouragement and in 1973 development on the Manifold was begun. The Warman zone was also discovered and outlined by diamond drilling that year.

Northair, a junior mining company, conducted a bold campaign over the next two years to develop the mine and install the mill and surface plant under adverse political and environmental pressure of the government of that period.

In April, 1976 the plant was put on stream at a milling rate of 300 tons per day, the first junior mining company in B. C. in 35 years to "go-it-on-its-own." With aggressive management and a new, less-restrictive government, the company paid off its debts by early 1979 and continued its successful operation until June, 1982 when depressed gold prices and low ore reserves resulted in a wisely-considered temporary shut-down.

Since production began the mine has produced 543,181 tons of ore with an average grade of 0.332 oz. gold, 1.838 oz. silver, 1.22% lead and 1.77% zinc. The mine workings extend from the 2800 ft. elevation to the 3900 ft. elevation.

PRESENT ORE RESERVES:

Proven ore reserves at time of closure were calculated at 51,968 tons grading 0.259 oz/ton Au, and 0.72 oz/ton Ag. However, the ore reserves readily available amount to 27,028 tons @ 0.229 oz/ton Au, 0.3 oz/ton Ag, or 20,113 tons @ 0.290 oz/ton Au, and 0.31 oz/ton Ag.

PROPERTY POTENTIAL:

During the latter years of operation at the Brandywine property a conservative approach was taken toward exploration development with the result that many untested potential areas exist within the present mine limits. Although some development faces were still in ore-grade material at the time of closure, these were not included as ore reserves. Furthermore, the eastern limits of ore potential have never been defined on the lower levels and a recent review of the data available indicates an apparent increase in ore-grade in an easterly direction on the lowest mine level with excellent potential existing for further ore along strike for a distance of at least another 1000 feet:

Although no positive guarantee of additional ore can be made, the structure is wide open on the lowest level and there is no evidence to disprove its continuity.

In addition to the strong potential for improved ore reserves, the company is in a most favourable situation due to its present state of production readiness.

Normally gold mines are financed at a time of high gold prices. However, recent history suggests that the time lag required for permits and construction normally delays production until gold prices have dropped to below-average levels. The resulting situation means that the highest grade ore is immediately extracted to pay the high interest rates and heavy debt loads at a time when the relative gold price is low. By the time the debt is repaid only the lower grade ore is left, leaving relatively low profits for the company and shareholders.

At Northair, however, the general operating climate is much more healthy.

1. The mill can be placed in a state of full operation within a matter of weeks.
2. The mine can be put into production within three to four months from the date of production decision.
3. The company has no debts to be paid out of production profits.
4. The company is not bound by any in-force union agreements and may elect to self-operate or contract out any specific operating function.
5. No campsite will have to be maintained.

At this point in time, with the relative weakness in the price of gold, but with the optimism of financiers with respect to this metal's future, it is a most opportune time for further exploration.

Finally, Northair will have the most favourable option of mining the present ore reserves (and additions, should they occur) immediately upon conclusion of the recommended exploration program, or delaying the re-opening of the mine to a time of higher gold prices, thereby capitalizing on improved gold prices for maximization of potential profits.

FAVOURABLE EXPLORATION TARGETS:

Many favourable exploration targets exist throughout and adjacent to the present mine workings (See Figure 3). Diamond drilling has been sparse and large blocks have never been adequately explored. In several instances areas drilled with negative results were later successfully developed and very profitably mined. In many other instances ground with excellent prospect potential was not drilled or developed due to its conflict with production objectives or access. At other times deep-holes drilled from surface flattened or deviated radically from the target areas. Finally, many encouraging drill intersections were never followed up due to production or available access considerations, budget restrictions, labour turnover in the geology department and a myriad of other legitimate reasons.

The following are some of the target areas which were incompletely drilled and where additions to present ore reserves are considered likely:

Manifold Zone

In area M-1 (see Fig. 3), two of the 3 holes drilled intersected ore-grade vein. These assayed 0.82 oz/ton Au, 3.70 oz/ton Ag over a true width of 2.5 ft. and 0.42 oz/ton Au, 1.6 oz/ton Ag over a true width of 3.0 ft.

In area M-2, two out of 3 diamond drill holes intersected ore-grade mineralization, including a 1.0 ft. true-width section of 0.78 oz/ton Au, 8.7 oz/ton Ag, and a 6.5 ft. true-width section grading 0.37 oz/ton Au, 5.05 oz/ton Ag.

Areas M-5 is a large area entirely lacking in drill information except for one intersection which assayed 0.27 oz/ton Au, 5.9 oz/ton Ag over a 3 ft. true width.

Areas M-3 and M-4 are downward extensions to past-productive stopes, but which were not mined or considered as ore reserves due to their relative inaccessibility. However, if drilling confirms economic stoping blocks, new access ways will be provided during a later development phase.

Warman Zone

Area W-1 is the potential upward extension to the 28-700 stope, a stope which commenced production immediately prior to the mine closure. The ore reserves assigned to this block were drift-proven and no serious drill program has ever been instituted to expand the ore reserves far ahead of stoping.

Area W-2 is the upward extension to the set of recently developed "900" stopes. Again the potential upward extension was never tested beyond the limits of the workings.

Area W-3 was discovered immediately after the 1982 mine closure when two drill holes intersected 9.3 ft. grading 0.47 oz/ton Au, and 19.0 ft. of 0.46 oz/ton Au. A third hole later cut 7.0 ft. assaying 0.56 oz/ton Au. Only a small ore reserve was assigned this block although it was never delimited in any direction.

Area W-4 represents an untested area between two highly productive stopes while areas W-5 & W-6 represent the untested upward and downward extensions to the 35-1000 stope.

Other potential areas blocked out simply haven't been adequately tested and consequently their potential is undefined.

The main thrust of the exploration program should therefore be centered within and immediately adjacent to the present mine workings.

EXPLORATION PROGRAM RECOMMENDATIONS:

It is recommended that one million dollars be spent in 1983 almost exclusively toward proving up additional ore reserves in the mine area. At the same time a relatively small portion of the budget (included) should be spent in on-site evaluation of the most favourable geochemical and geophysical anomalies at varying distances from the mine proper.

The development work proposed is for exploration purposes only. The objective is to maximize the number of ore intersections within the budget limitations. For this reason, diamond drilling is restricted to short, underground holes and lateral development headings should be maintained as small as economically possible. Should adequate additional ore intersections be located, slashing out and further development, beyond this exploration budget, will be required.

In total 1700 lineal feet of lateral development and 13,300 feet of diamond drilling (up to 60 holes) have been budgeted for. Specific locations and orientation of the diamond drilling will be determined on completion of the pre-program mapping and data evaluation. Sixty-one thousand dollars is also set aside for surface exploration over the season and will include prospecting, geochemistry, assaying and geophysics.

1983 BUDGET SUMMARY

PRE-PROGRAM	\$ 12,500	
PHASE I - General	121,000	
- Diamond Drlg. 4000' @ \$18.92	75,700	
- U/G Development 1050' @ \$277.00	291,000	
- Surface Exploration	16,000	
- Post Program Evaluation	<u>2,500</u>	
Total Pre-Program & Phase I		518,700
PHASE II - General	96,900	
- Diamond Drlg. 9200 ft.	158,400	
- U/G Development 650 ft.	181,000	
- Surface Exploration	<u>45,000</u>	
		<u>481,300</u>
Total Phase I & Phase II -		\$1,000,000

1983 BUDGETPRE-PROGRAM

- Geologist 20 days Van. Office		
10 days Mine Site		
10 days Evaluation	50 days @ \$250.00	\$ 12,5
10 days Report & Specific Plans		

PHASE I

<u>General</u> - Initial Mine Preparation	25,000	
- Manager 90 days @ \$200	18,000	
- Geologist 90 days @ \$200	18,000	
- Air, Water, Power, Ventilation, Fuel	18,000	
- Maintenance 3 mo. @ \$4,000	12,000	
- Administration 3 mo. @ \$10,000	<u>30,000</u>	121,0

2800 L DIAMOND DRILLING IN PRESENT EAST DRIFT

-20 Holes @ 200' @ \$14.00	56,000	
-Room & Board for 5 men @ \$55,00 for 50 days	12,400	
-Transport by D.D. Contractor @ \$2000/mo.	3,300	
-Assaying	<u>4,000</u>	75,7

3250 L DEVELOPMENT

-Lateral Dev. 800' @ \$300/ft. @ 10'/day	240,000	
-Slashing 250' @ \$200/ft. equiv.	50,000	
-Assaying	<u>1,000</u>	291,0

SURFACE EXPLORATION

-2 Technicians-prospecting, trenching		
Two men, 40 days @ \$125.00	10,000	
-Geochemical Assaying	<u>6,000</u>	16,0

POST PROGRAM EVALUATION

-Geologist 10 days @ \$250.00	<u>2,500</u>	<u>2,5</u>
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TOTAL PRE-PROGRAM & PHASE I

\$518,7

PHASE II2800 L DEVELOPMENT

-Lateral Dev. 500' @ \$300/ft. @ 10'/day	150,000	
-Slashing 150' @ \$200/ft.	30,000	
-Assaying	<u>1,000</u>	181,000

DIAMOND DRILLING

-3200 L 26 DD Holes @ 200' long		
-3200 L 10 DD Holes up & down @ 300'		
-3500 L 5 DD holes down @ 200'		
9200 ft. @ \$125/day 75 shifts @ \$14.00/ft.	128,800	
-Room & Board 75 days for 5 men @ \$55.00	20,600	
-Transport of D. Drillers @ \$2000/mo.	5,000	
-Assaying	<u>4,000</u>	158,400

SURFACE EXPLORATION

-Road Construction	20,000	
-Diamond Drilling (WINKIE) 500' @ \$50	<u>25,000</u>	45,000

GENERAL

-Manager 80 days @ \$200	16,000	
-Geologist 90 days @ \$200	18,000	
-Air, Water, Power, Ventilation, Fuel	18,000	
-Maintenance 3 mo. @ \$4,000	12,000	
-Administration 3 mo. @ \$10,000	30,000	
-Post Program Evaluation \$2900	<u>2,900</u>	<u>96,900</u>

TOTAL PHASE II \$481,300

TOTAL EXPLORATION PHASE I & PHASE II \$1,000,000

SUBMITTED BY:

ADTEC MINING CONSULTANTS INC.

Wayne M. Ash

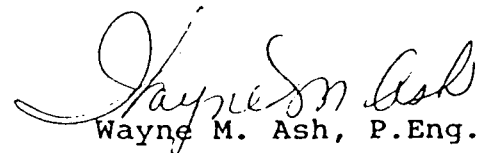
June 16, 1983

STATEMENT OF QUALIFICATIONS

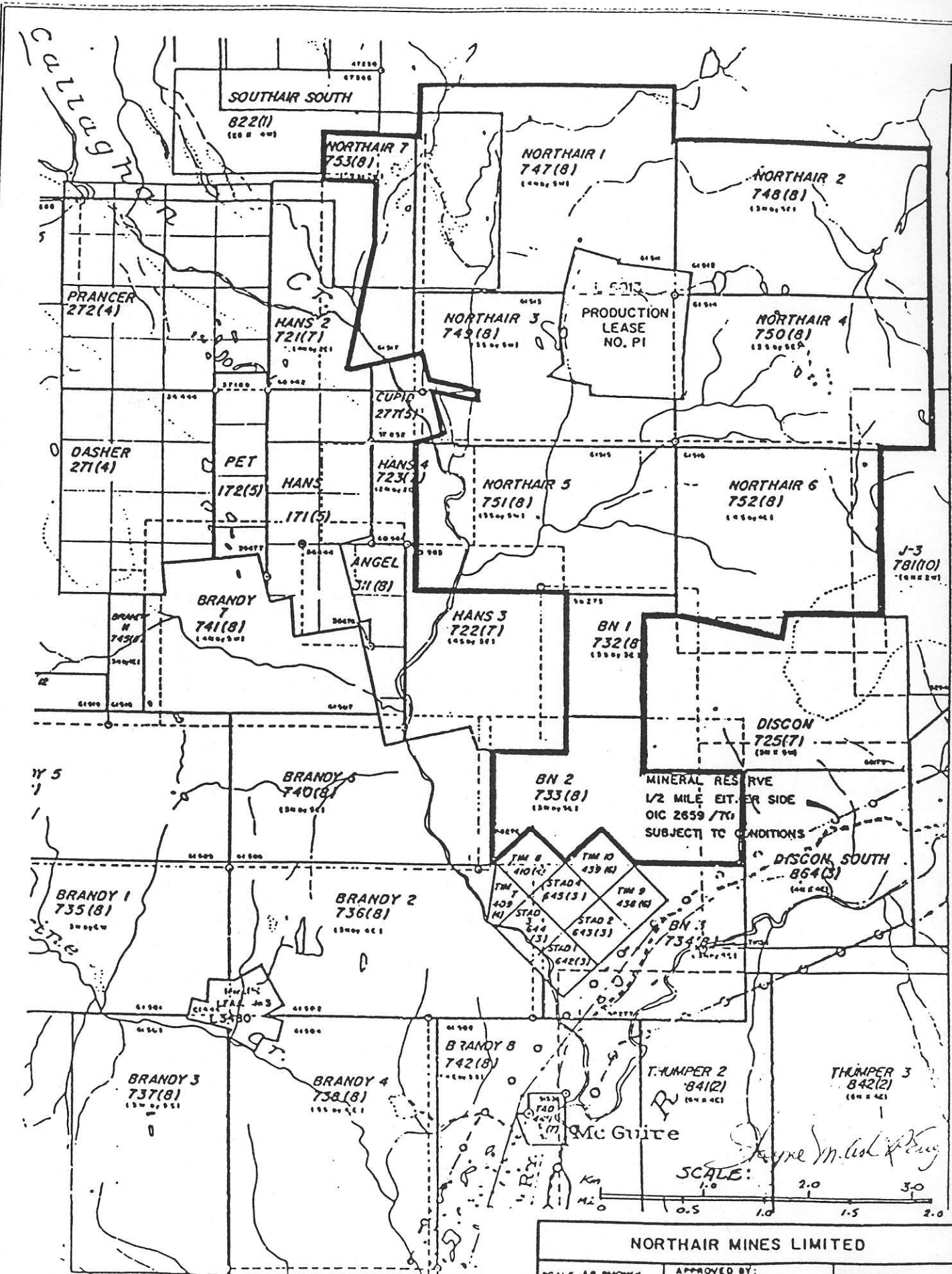
I, Wayne M. Ash, of 2543 Orkney Way, Garibaldi Highlands, B.C.;

DO HEREBY CERTIFY THAT:

1. I am a graduate of Michigan Technological University with a Bachelor of Science degree in Mining Engineering.
2. I am a registered member of the Association of Professional Engineers in the Province of British Columbia.
3. I am a member of the Canadian Institute of Mining and Metallurgy, and member of the American Institute of Mining Engineers.
4. I have been employed in the minerals industry for the past 23 years, as a professional engineer for the past 12 years.
5. I have no interest, either directly or indirectly in the property of securities of Northair Mines Ltd., nor do I expect to receive such interest.
6. This report is based upon a re-evaluation of all presently available reports, maps and data plus three years of on-site experience on the property.
7. Permission is hereby granted to Northair Mines Ltd. to reprint all or part of this report for the purpose of raising funds for the continued development of the property so long as the quotation does not materially differ in context from that which was set out in the whole.

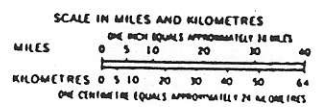
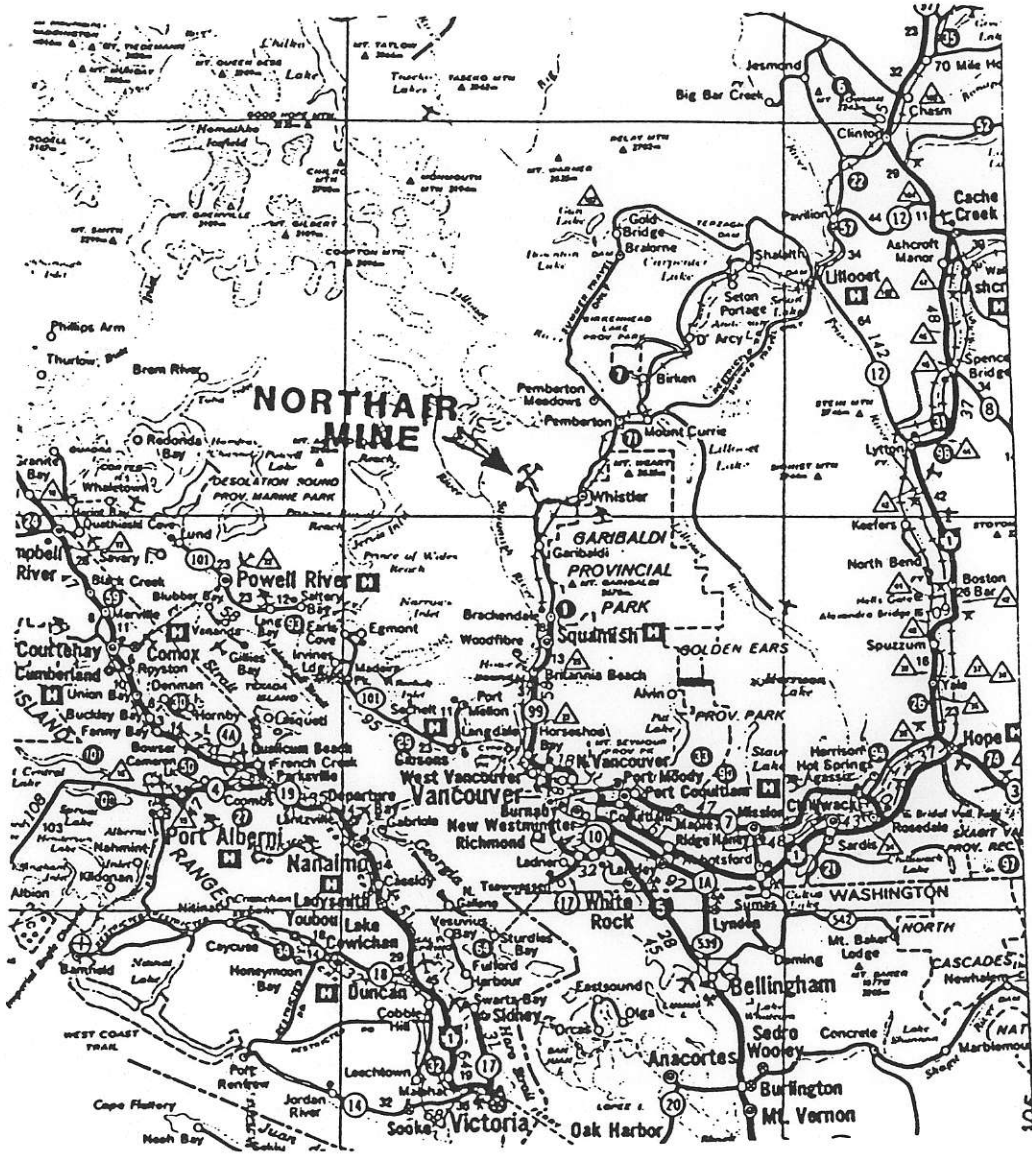

Wayne M. Ash, P.Eng.

Dated this 16th day of June, 1983
at Vancouver, British Columbia



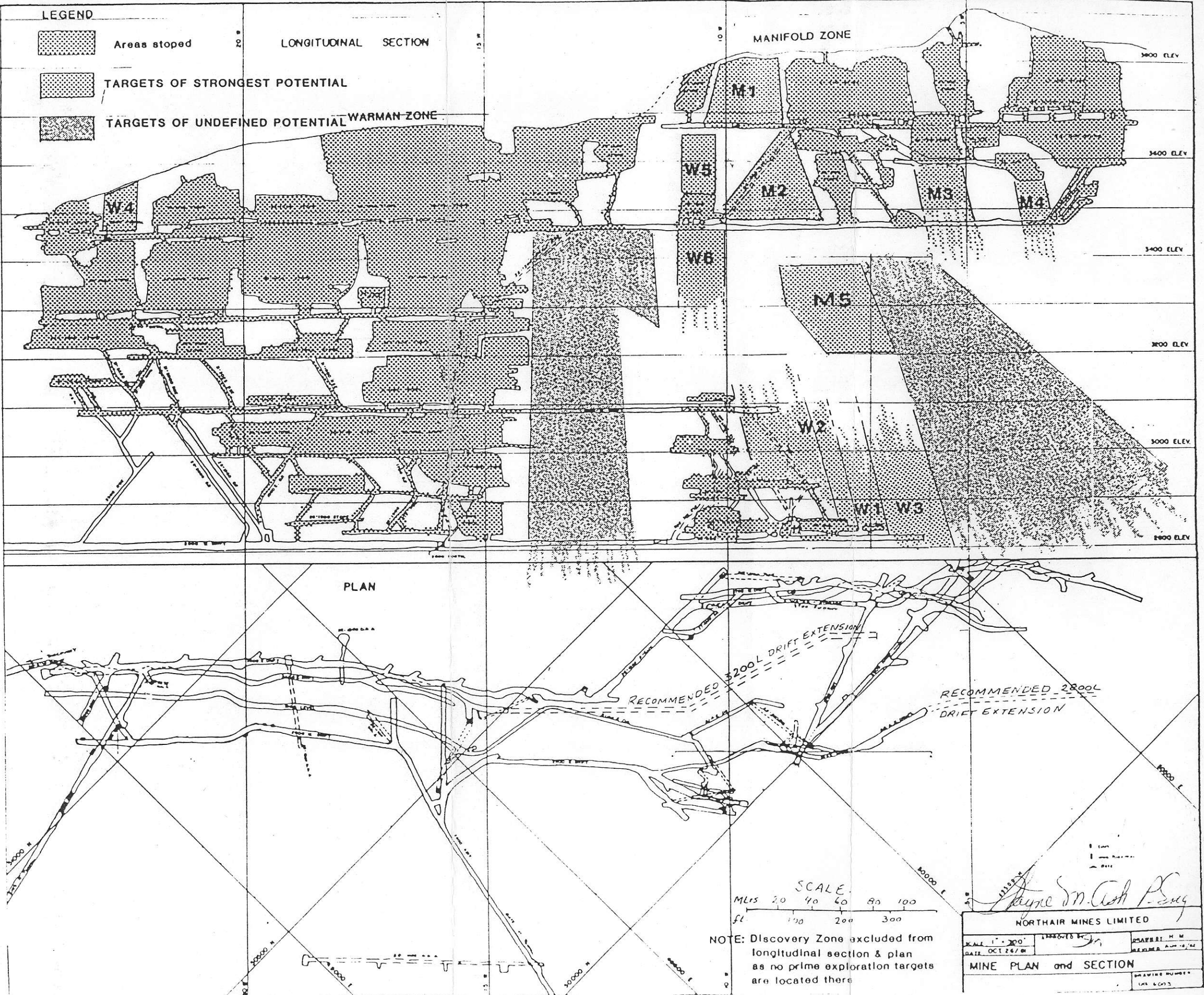
NORTHAIR MINES LIMITED		
SCALE AS SHOWN	APPROVED BY:	DRAWN BY:
DATE: JUNE 18/68	WMA	REVIEWED:
CLAIMS LOCATION MAP - BRANDYWINE MINE		

BREW



Jayne M. Collier

NORTHAIR MINES LIMITED			
SCALE AS SHOWN	APPROVED BY:	DRAWN BY	
DATE: JUNE 18/68	WMA	REVISED	
GENERAL LOCATION MAP - NORTHAIR MINE			
IRBANDY WINE PROPERTY			DRAWING NUMBER



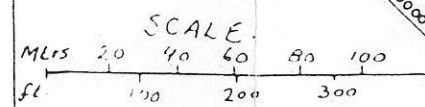
LEGEND

- Areas stoped
- TARGETS OF STRONGEST POTENTIAL
- TARGETS OF UNDEFINED POTENTIAL WARMAN ZONE

LONGITUDINAL SECTION

MANIFOLD ZONE

PLAN



NOTE: Discovery Zone excluded from longitudinal section & plan as no prime exploration targets are located there

John M. Ash P. Eng.

NORTH AIR MINES LIMITED

SCALE 1" = 200'	DATE OCT 26/54	DRAWING NUMBER LMS 6-1013
MINE PLAN and SECTION		DRAWING NUMBER LMS 6-1013