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REPORT ON

210 CLAIM PROPERTY

OF

DOUBLE A MINES LTD.

NEAR WHITEHORSE, Y. T.

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WHITEHORSE, Y.T.

by

David H. Tait, P.Eng.

L. J. Manning & Associates Ltd.

July 15, 1968

This report has been examined by the Geological Evaluation Unit. Approved as to technical worth by:

D. C. Findlay
RESIDENT GEOLOGIST

Approved as to cost in the amount of $ Endorsed on EP Report by Spigel

R. F. Needham
RESIDENT MINING ENGINEER

Accepted as representation work under Section 53(4) Yukon Quartz Mining Act

COMMISSIONER OF YUKON

L. J. MANNING & ASSOCIATES LTD.
CONSULTING MINING ENGINEERS
610—890 WEST PENDER STREET VANCOUVER 1, B.C.

OFFICE PHONE:
683-5861

RESIDENTIAL PHONE:
L. J. MANNING - 985-5690

July 15, 1968

The President and Directors,
Double A Mines Ltd.,
Vancouver, B. C.

Dear Sirs:

The following is a report on the Double A claim group located about 25 miles southwest of the City of Whitehorse, Y. T.

SUMMARY:

Your group of 210 claims lies some 25 miles southwest of Whitehorse within a glacial drift covered valley of high magnetic relief. Recent exploration drilling following a helicopter-borne magnetometer survey has disclosed the presence of magnetite with some gallium in ultra basic clinopyroxenites. Native copper, bornite, chalcopyrite and sphalerite were encountered in small quantities in two of the three completed holes.

A phased program is now recommended which would commence with an I. P. survey over that portion of the property magnetically and geologically most favourable for the deposition of a commercial deposit. Diamond drilling would then be undertaken to test favourable targets.

The estimated cost involved of I. P. survey followed by drilling would be $30,000 for Phase I.

Should Phase I prove successful, Phase II should then be undertaken at a presently estimated cost of an additional $57,000 for a total of $87,000.

CLAIMS:

Claim Name	Grant Number	Expiry Date
AE 1-8	Y23486-Y23573	9th Feb., 1969
AAI 1-8		
AAH 1-8		
AAM 1-8		
AAN 1-8		
AAT 1-8		
AAU 1-8		
AAW 1-8		
AAX 1-8		
AAY 1-8		
AAZ 1-8		
AA 1-8	Y23638-Y23661	9th Feb., 1969
AB 1-8		
AC 1-8		
AAE		
AAG 1-8	Y23706-Y23713	14th Feb., 1969
AAK 1-8	Y23754-Y23777	19th Feb., 1969
AAB 1-8		
AH 1-8		
AAD 1-8	Y23779-Y23810	19th Feb., 1969
AF 1-8		
AAG 1-8		
A-1 1-8		
AAL 1-8	Y23404-Y23411	7th Feb., 1969
AAP 1-8	Y23412-Y23419	7th Feb., 1969
AAQ 1-8	Y23420-Y23427	7th Feb., 1969
AAR 1 & 2	Y23428 &29	7th Feb., 1969
AAV 1-8	Y23436-Y23443	7th Feb., 1969

Total Number of Claims--210

LOCATION:

The claims are shown on the staking sheet 105-D-5, issued under the authority of the Minister of Northern Affairs and Natural Resources, to be 130°40'W. and 60°28'N. The group lies about 25 miles southwest of the city of Whitehorse.

ACCESS:

Access to the Mud Lake area is by chartered float plane or helicopter from Whitehorse. Float plane landings are often difficult as the lake is shallow and the winds seldom favourable. Radio communications with Whitehorse is often poor with a result it is now always easy to summons a helicopter when needed. Pack horse trails used mainly by trappers and hunters lead east to Whitehorse, south to Watson River and north to the Alaska Highway. It would not be a difficult task to construct a gravel road to the camp area from the Watson River Trail.

CLIMATE:

The elevation of Mud Lake approaches 4,000 feet. The valley is almost treeless giving little protection from the winds. In winter there are periods of extreme cold but it does not last long. Winds from the Pacific have a moderating effect which in summer tend to keep the nights cool and the days brisk.

It has not proved impossible for exploration to continue all year round. Winds tend to blow much of the snow away, so that winter may be the most desirable working period as the muskeg and lakes are frozen making transportation easy. In summer some areas of swamp become impassable particularly with heavy machinery.

TOPOGRAPHY:

The Mud Lake valley trends east-west. It has seemingly been gouged clean by the retreating ices forming a broad U-shaped structure approximately two miles wide.

The volcanic mountains to the south are steep sided while the granitic intrusives appear more weathered and rounded. To the north, both the volcanics and intrusives have a more gentle slope. The reason for the differing attitudes is not apparent.

TOPOGRAPHY: (Continued)

The valley floor contains a number of small knolls. The major magnetic highs are often associated with the gentle valley rises.

Rock outcrops on the valley floor are nowhere apparent. It was first felt that a great thickness of glacial detritus would be encountered in the area. Overburden proved to be only a thin blanket most of which has been formed from nearby underlying bedrock.

Low willow bush covers most of the region. Some spruce is found in the lower or more sheltered regions. Trees appear to grow to about twenty feet and then are uprooted by the winds.

Drainage in the area will often form peculiar patterns. It appears that streams often take the long route to avoid certain types of rock. Mud Lake itself is formed of 3 to 4 feet of water underlain by at least that much again of colloidal silt.

GEOLOGY:

The area lies on the nose of an outlier of the Lewis River Sediments and volcanics of varying ages.

The valley floor has been obscured for the mapping of detailed geology.

Directly to the north of Mud Lake rock has been mapped by the G. S. C. as Lewis River Sediments and directly to the south a granitic plug has intruded volcanics of uncertain age.

Recent drilling has uncovered a clinopyroxenite intrusive laying between the mapped Lewis River Sediment and the coast range granophyre. This ultrabasic plus appears to underlie the Lewis River Sediments at a shallow depth and grade into the granite plug. A number of fault or breaks have accompanied the ultra-basic intrusive together with the introduction of magnetite.

Some native copper has been noted near the northeast portion of the area. This copper occured in a loosely sheared zone near a feldspar porphorite dyke. Bornite together with possible sphalerite was noted in the core south of Mud Lake.

?

HISTORY & EXPLORATION:

From a Government aeromagnetic map a major magnetometer anomaly was supplemented by a detailed helicopter-borne survey in February, 1968. From the detailed mapping, five differing features were chosen for diamond drilling. Drilling on three of these targets, namely Hole 2, 3, and 5 was completed by June, 1968. Owing to unforeseen drilling expenditures it was decided that further drilling should await the establishment of more definite drill targets.

Core from the most recent drilling is now being assayed. A summary of the hole logs is as follows:

H-2--406' @ 90°: Sediments and Pyroxenites contain magnetite and possible gallium. This hole was situated on a major magnetic high.

H-3--404' @ 45°: Cut shears or fault zones and feldspar porphory dyke into pyroxenite--minor native copper appears within loose shear zone and some chalcopyrite in proxenite.

H-5--407' @ 90°: Cut feldspar granophyre into proxenite--minor bornite and sphalerite appear disseminated within granophyre and magnetite in proxenites. Hole was drilled on a minor magnetic high.

In some aspects the Mud Lake area resembles the Whitehorse copper belt where favourable ore sites are associated with minor embayments to the flanks of major magnetic highs. Hole No. 5 at Mud Lake was located on a minor embayment to the south of the main large magnetic high. This hole appeared the most interesting mineralogically in that a number of sulphides were apparent.

For completion of the initial exploration program the following phased program is recommended.

Phase I

1. Conduct a ground mag. survey about the considered ground.

2. Conduct an I. P. survey over those embayments considered most interesting

3. From the I. P. and Mag., establish the existance of sulphide bearing zones.

4. Diamond drill those areas of possible sulphide enrichment.

RECOMMENDATIONS:

The geology of the region has been well blanketed by an apparently thin layer of detritus and no past drilling or exploration has been reported in the Mud Lake area. Because of the evidence of copper mineralization found by your recently completed program of approximately 1,300 feet of diamond drilling a phased program of magnetometer and I. P. surveys followed by diamond drilling is recommended.

ESTIMATED COST:

Phase I--I. P. Survey

I. P.--25 line miles @ $700/mile	$ 17,500
400 feet of diamond drilling @ $20.00/ft.	8,000
	$ 25,500
Contingencies	4,500
Phase I	$ 30,000

Phase II--Dependent on Phase I

Complete I. P. Survey over the favourable magnetics--50 line miles	$ 35,000
Test Diamond Drilling, 1,400' @ $12.00	17,000
Contingencies	5,000
Phase II	$ 57,000
Total Phase I and Phase II	$ 87,000

Yours truly,

L. J. MANNING & ASSOCIATES LTD.

David H. Tait, P.Eng.

CERTIFICATE

I, DAVID H. TAIT, of #610 - 890 West Pender Street in the City of Vancouver, Province of British Columbia, do hereby declare:

1. I am a graduate geological engineer.

2. I am a graduate of the University of British Columbia 1949.

3. I am a registered professional engineer in British Columbia

4. I have been employed in geological exploration in British Columbia, Yukon and Northwest Territories.

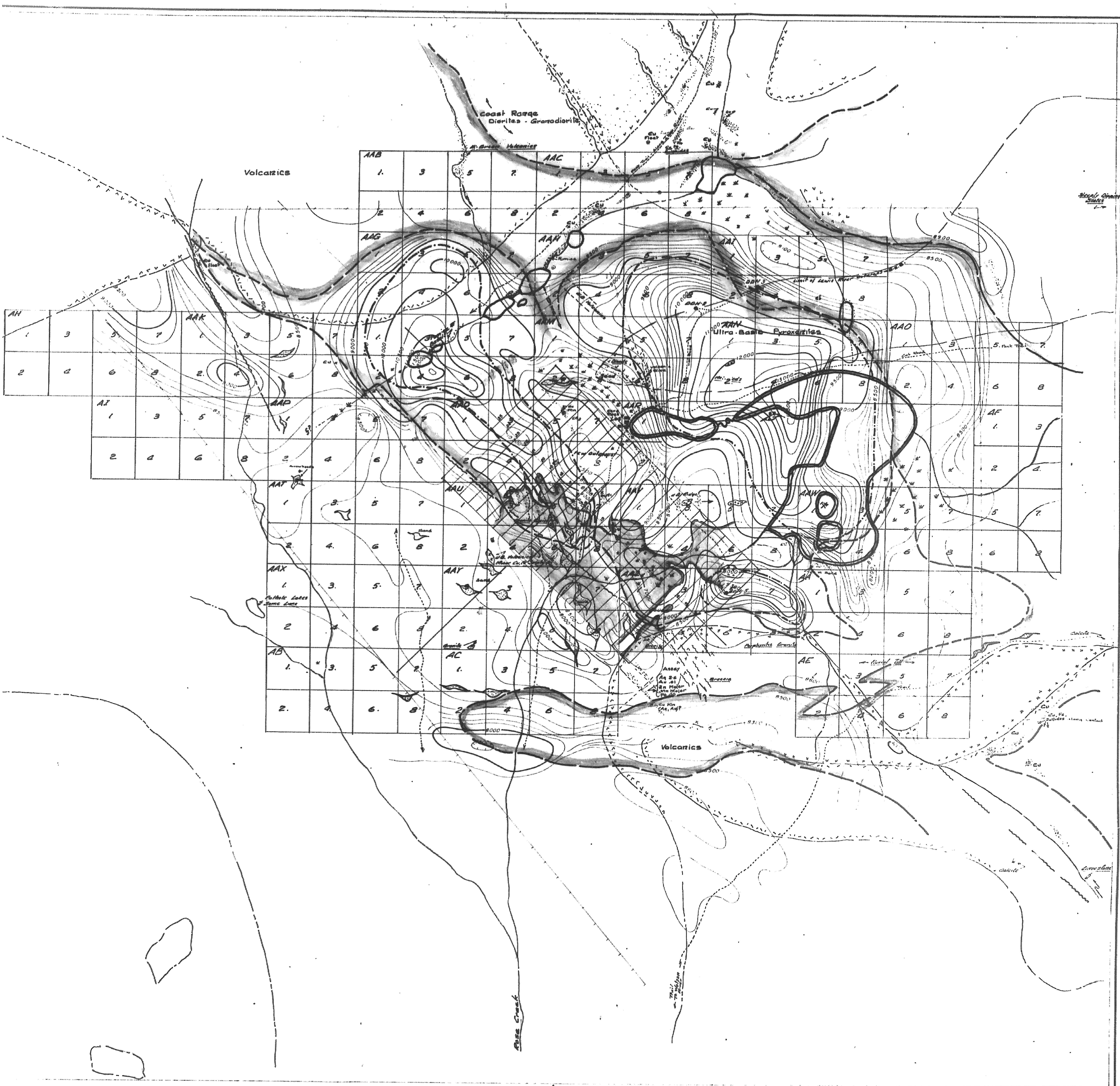
5. My report is based upon personal examinations made from May 7, 1968 to June 10, 1968 in which period I was living at the claim area attending initial drilling activities.

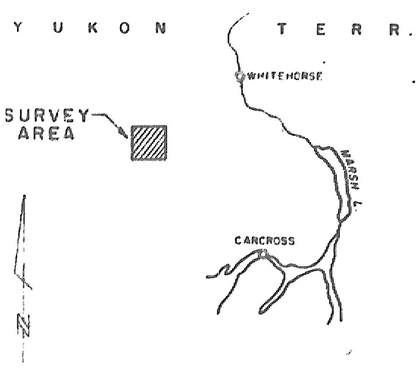
6. I have been employed in geophysical exploration in Alberta, Saskatchewan and British Columbia.

7. I do not hold vendor shares or capital stock in Double A Mines Ltd. (N.P.L.) or any of its affiliates.

DATED at Vancouver, B. C. this 15th day of July, 1968.

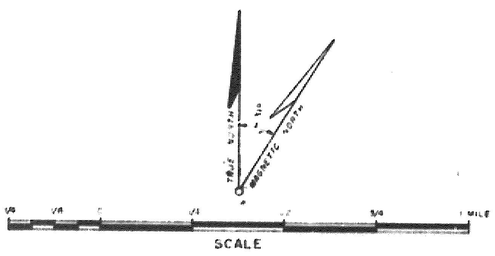
D. H. Tait, P.Eng.





LOCATION MAP

SCALE 1" = 20 MILES APPROX



LEGEND

Approximate Magnetic Inclination -77°N

Approximate Total Magnetic Intensity 57,800 Gammas in Center Of Area

Flight Line Interval Approx. 1/8 Mile

LEGEND

- Ultra-Basic - (Pyroxenites with magnetite and Gallium)
- Volcanics - (Age Unknown) - Basalts, Andesites Some Greenstone
- Coast-Range - Granodiorites
- Sediments - (Slates & Conglomerate
- Very-High Chargeability Responses - (I.P.)
- Noted Mineral occurances
- Indian Artifacts
- Magnetic Highs
- Sand Dunes

COMPOSITE MAP

Showing

Magnetic & I.P. Anomalies, Geology Drill Hole Locations, Cat Roads Pack Trails, Claim Loctions, Camp Sites and General Topography of A-A Mines Ltd.

MUD LAKE CLAIMS

PLATE I

DOUBLE "A" SYNDICATE

WHITEHORSE AREA, YUKON TERRITORY

AIRBORNE MAGNETOMETER SURVEY

CONTOUR INTERVAL - 100 GAMMAS

FLOWN AND COMPILED BY

SEIGEL ASSOCIATES LIMITED

FEBRUARY 1968

Aeromagnetics TO ACCOMPANY A GEOPHYSICAL REPORT BY RICHARD O. CROSBY DATED MARCH 1, 1968