

REPORT ON  
SNO GROUP  
SNOHOOSH LAKE, CLINTON M.D.

92P2

for  
NEWHAWK GOLD MINES LTD. (N.P.L.)

by  
J.W. MacLeod, P. Eng.  
Vancouver, B.C., Sept 17, 1980

*report taken from VSE, Newhawk Gold Mines Ltd (NPL)*

TABLE OF CONTENTS

	<u>PAGE</u>
INTRODUCTION .....	1
SUMMARY .....	1
PROPERTY .....	3
LOCATION & ACCESS .....	3
GENERAL .....	3,5
GEOLOGY .....	5
MINERAL OCCURRENCES .....	7
CONCLUSIONS .....	8
RECOMMENDATIONS .....	8

ILLUSTRATIONS

	<u>SCALE</u>	<u>PAGE</u>
LOCATION MAP .....	1:2,400,000	2
PLAN OF CLAIMS .....	1:50,000	4
GEOLOGY .....	1:250,000	6

APPENDIX I

ENGINEERS' CERTIFICATE .....	9
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SNO GROUP  
SNOHOOSH LAKE, CLINTON M.D.

INTRODUCTION

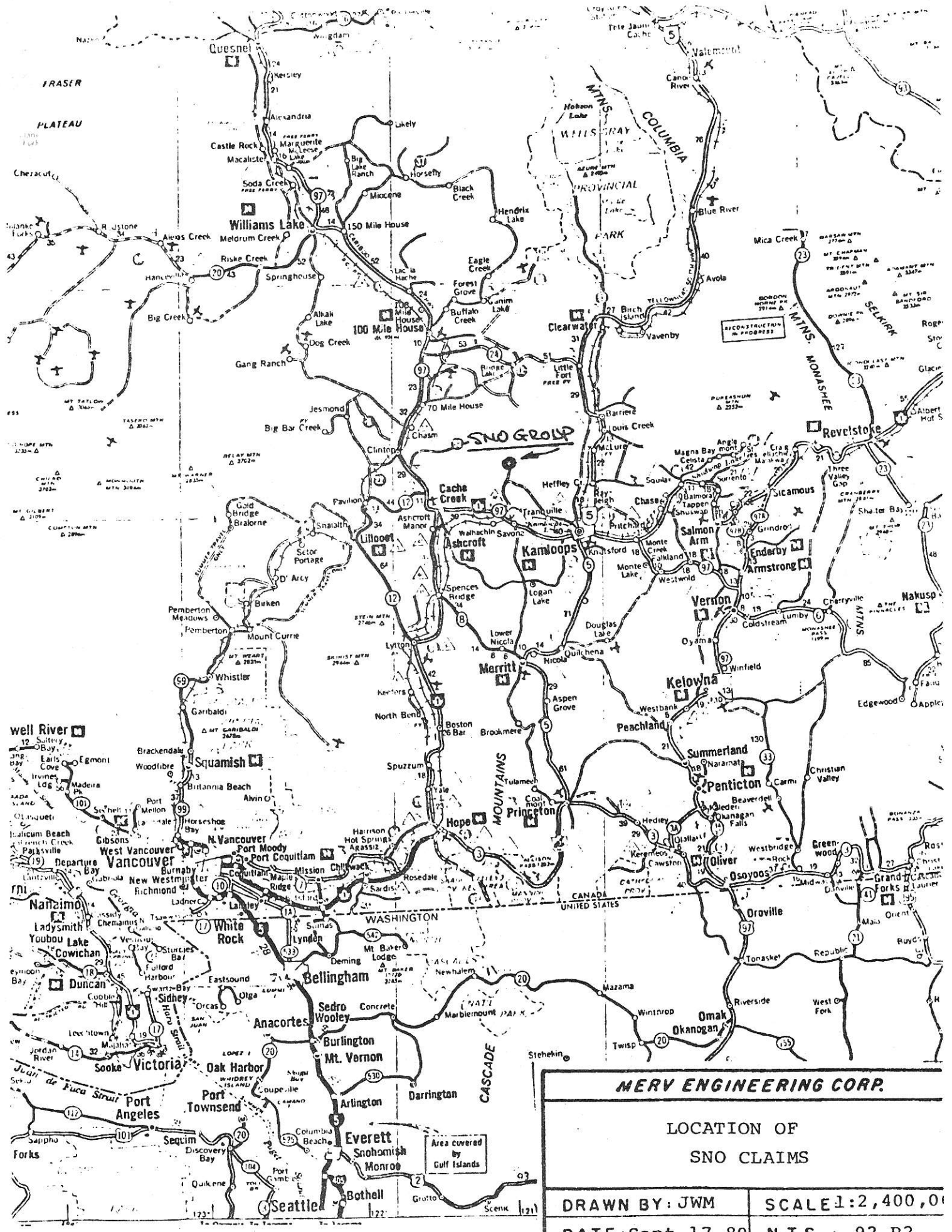
The following report has been prepared at the request of D.A. McLeod, President of Newhawk Gold Mines Ltd. (N.P.L.) and is based on an examination made on July 31, 1980 in the company of the staker, Michael Dickens.

SUMMARY

Newhawk Gold Mines Ltd. (N.P.L.) has under option the Sno 1-4 claims (63 units) located 50 km northwest of Kamloops.

Since exposure is very limited in the vicinity of the mineral discovery, which consists of gold, copper, molybdenum and tungsten values in skarnified limey sediments, detailed examination of the surrounding area is justified.

Geochemical and geophysical surveys and 1,000 feet of diamond drilling estimated to cost \$50,000 are recommended for the initial phase of exploration of the property.



<b>MERV ENGINEERING CORP.</b>	
LOCATION OF SNO CLAIMS	
DRAWN BY: JWM	SCALE 1:2,400,000
DATE: Sept 17, 80	N.T.S.: 92 P2

PROPERTY

The property consists of the following claims:

<u>CLAIM NAME</u>	<u>UNITS</u>	<u>RECORD NO.</u>	<u>RECORDED</u>
SNO 1	20	847	Aug. 5, 1980
SNO 2	15	848	Aug. 5, 1980
SNO 3	16	849	Aug. 5, 1980
SNO 4	12	850	Aug. 5, 1980

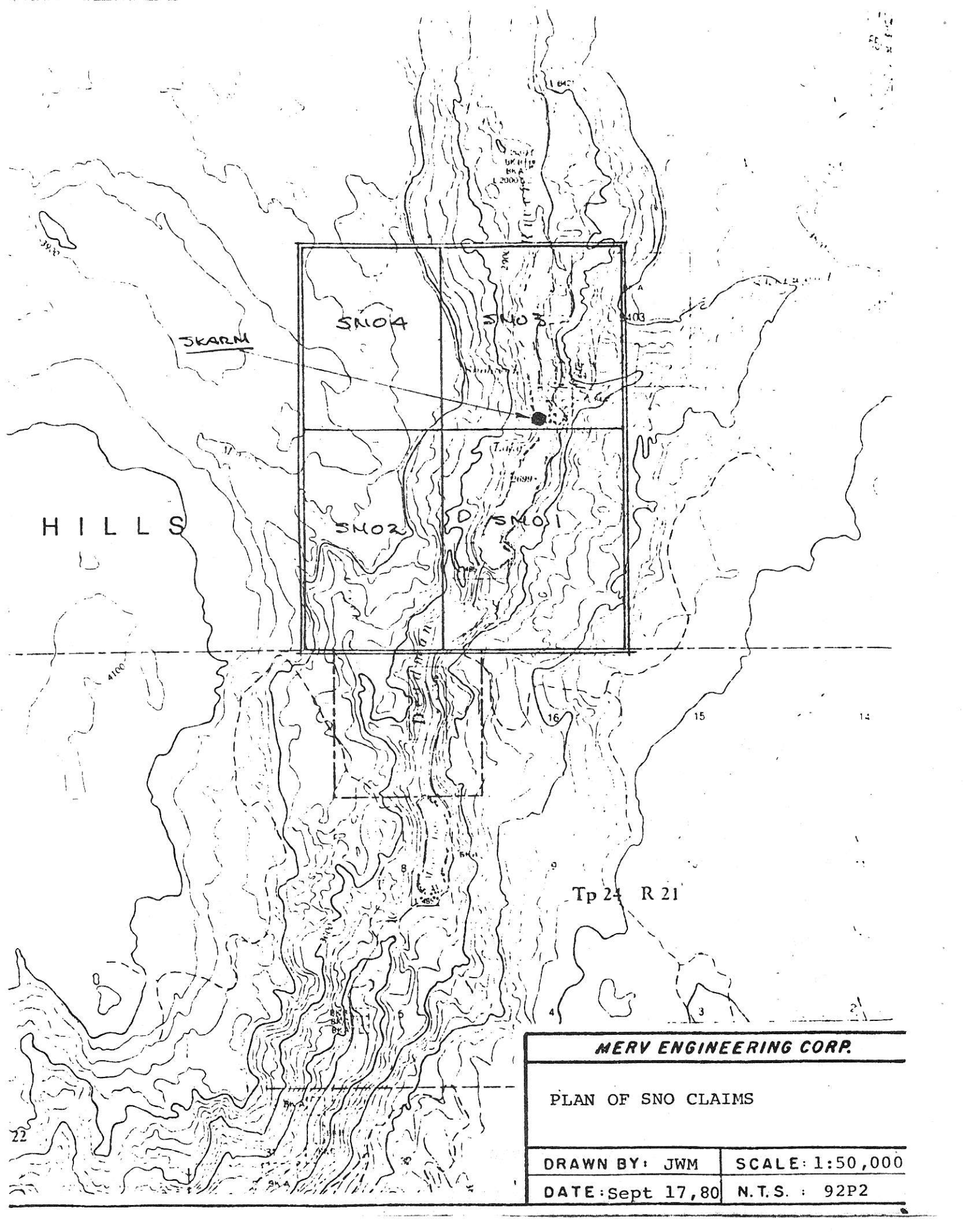
These claims form a block of 63 units, 9 units northsouth and 7 units eastwest. They were staked by M. Dickens, Box 116, Savona, B.C. and are a re-staking after abandonment of SNO claims which showed on the claims map with a fraction where the showings occur.

LOCATION & ACCESS

The claims are located 260 km northeast of Vancouver and 50 km northwest of Kamloops. About 50 km west of Kamloops on highway 97 and 6 km west of Savona, a small community at the west end of Kamloops Lake, a good gravel road follows the Deadman River valley north for 30 km to the property. The examination was made by taking a float plane from Vancouver, a flight of a little over an hour, landing on Snohoosh Lake.

GENERAL

Snohoosh Lake, elevation 820 metres, trending north-south for 4 km across the property is primarily the result of damming



SKARM

HILLS

SNO4

SNO3

SNO2

SNO1

Tp 24 R 21

**MERV ENGINEERING CORP.**

PLAN OF SNO CLAIMS

DRAWN BY: JWM

SCALE: 1:50,000

DATE: Sept 17, 80

N.T.S. : 92P2

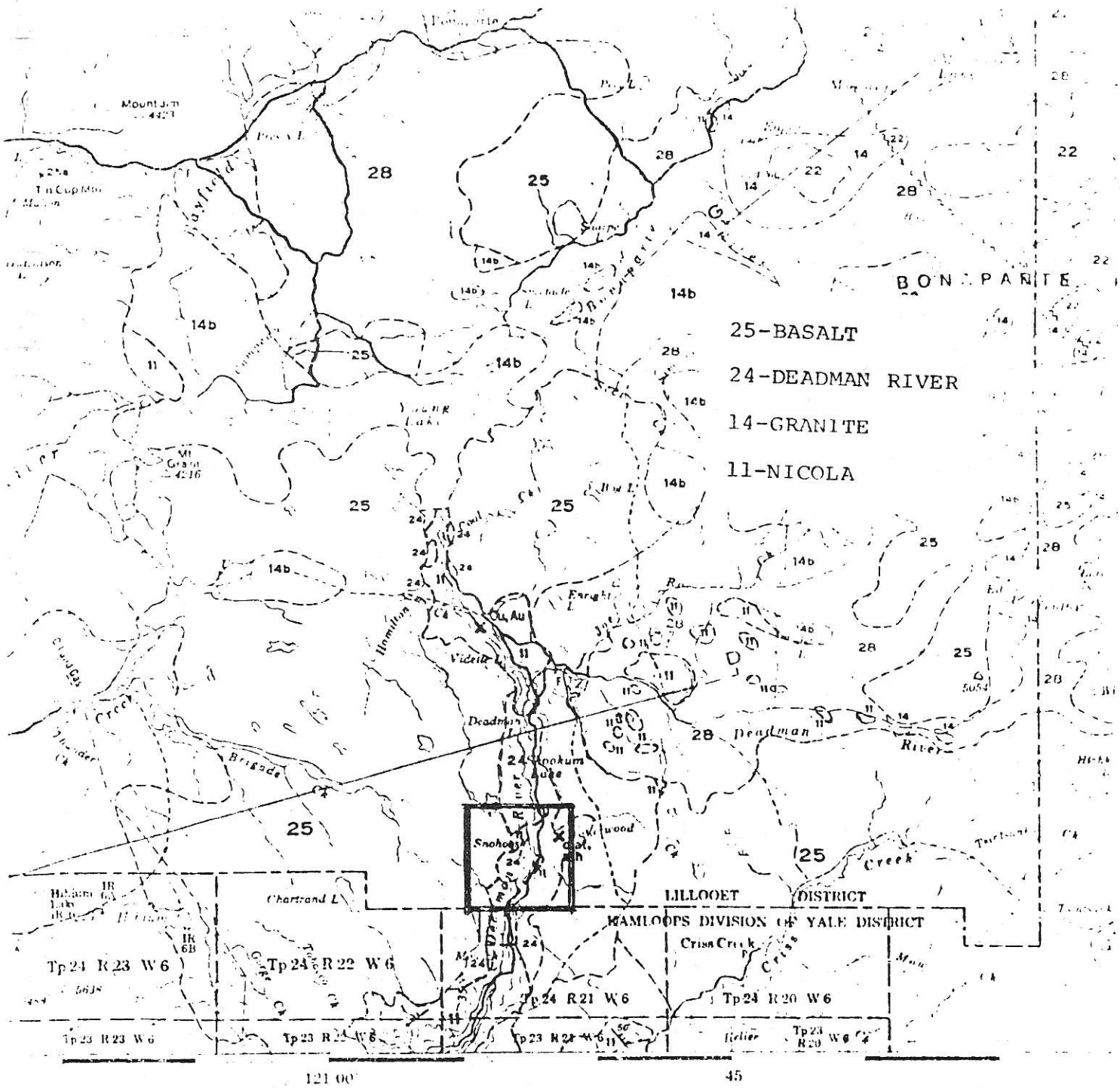
of the Deadman River. The valley walls rise steeply but not precipitous for 250 metres above the lake to the plateau which is general to the Caribou area.

Forest cover is mainly small pine and fir with little underbrush.

This is in the area of the interior dry belt with precipitation of about 25 cm, 50% in the form of snow.

#### GEOLOGY

The general geology of the claim area is available in G.S.C. Memoir 363 by Campbell and Tipper, 1971. Map 1278A accompanying this memoir shows most of the property to be underlain by the plateau basalt of Miocene age common to the Caribou. A window in these recent flows is created by the valley of Deadman River. This window exposes a sedimentary horizon at the base of the basalt and referred to as the Deadman River Formation. Below this formation Triassic Nicola volcanics are exposed in places along the valley. Rock exposures observed during the examination along the west shore of Snohoosh Lake were mainly thin bedded light weathering argillites and limey argillite. These are mapped as Deadman River Formation but more likely belong to the Nicola Group. At the north end of the lake granite or leuco quartz monzonite is exposed.



MAP 1278A  
 GEOLOGY  
**BONAPARTE LAKE**  
 BRITISH COLUMBIA

Scale 1:250,000

<b>MERV ENGINEERING CORP.</b>	
GEOLOGY OF THE SNO CLAIMS FROM G.S.C. MEMOIR 363	
DRAWN BY: JWM	SCALE: 1:250,000
DATE: Sept 17, 80	N.T.S.: 92P2



### MINERAL OCCURRENCES

The Deadman River Formation contains deposits of diatomaceous earth and pozzlanic ash and this material is exposed on the east side of Snohoosh Lake as mapped by Campbell and Tipper.

7 km north of the SNO group, Vidette Gold Mines Ltd. produced gold from narrow quartz veins from 1931 to 1940.

On the west shore of the lake just north of the boundry between SNO 1 and SNO 3 the limey sediments have been altered with lenses of garnet skarn exposed at the lake level. These lenses, up tp 0.3 metres wide are erratically mineralized with pyrite, chalco pyrite and molybdenite was noted.

The following are the assay results of selected mineralization taken by the writer:

<u>NO.</u>	<u>LOCATION</u>	<u>Au.</u>	<u>Ag.</u>	<u>Cu.</u>	<u>Mo.</u>	<u>W o3</u>
369	22 + 25 N	Tr.	0.01		0.003	0.02
370	21 + 32 N	0.056	0.80	2.97	0.007	0.13
371	21 + 33 N	0.030	0.38	3.28	0.016	0.01
372	21 + 25 N	0.032	0.05		0.162	0.03

These samples do not represent mineralization over significant width or length but do establish the presence of values of interest which require detailed investigation to determine the possible presence of bodies of economic size.

In view of the generally overburdened nature of the area, geochemical and geophysical methods will be required in the search for orebodies.

CONCLUSIONS

Mr. Dickens has discovered skarn type mineralization in limey sediments with interesting values in gold, copper, molybdenum and tungsten.

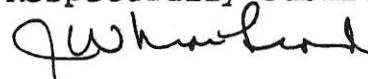
The limited exposure in the vicinity requires that the area along the valley be tested by geochemical and geophysical means. Also drilling should be carried out to test the section below lake level.

RECOMMENDATIONS

The following expenditure would be required to complete the initial phase of exploration of the SNO property:

Access Road- 2 km @ \$5,000 .....	\$10,000.00
Ground control- 12 km @ \$300 .....	3,600.00
Geochemical survey-400 samples @ \$10 .....	4,000.00
I.P. Survey- 12 km @ \$500 .....	6,000.00
Diamond drilling-300 m @ \$75 .....	22,500.00
Contingency .....	<u>3,900.00</u>
	<u>\$50,000.00</u>

Respectfully submitted,



J.W. MacLeod, P. Eng.

Vancouver, B.C.  
September 17, 1980

APPENDIX I

CERTIFICATE

I, James W. MacLeod, of 1220 Arbutus Street, in the City of Vancouver, in the Province of British Columbia,

DO HEREBY CERTIFY:

1. That I am a Consulting Engineer, with a business address at #1450-625 Howe Street, in the City of Vancouver, in the Province of British Columbia.
2. That I am a graduate of the University of Alberta with the degree of B. Sc. in Mining Engineering.
3. That I have actively practiced my profession in mineral exploration since graduation in 1946.
4. That I am a registered Professional Engineer in the Province of British Columbia.
5. That this report is based on an examination of the SNO claims carried out on July 31, 1980.
6. That I have no interest either directly or indirectly in the property or securities of Newhawk Gold Mines Ltd. (N.P.L.), nor do I expect to receive any.
7. That permission is hereby given to Newhawk Gold Mines Ltd. (N.P.L.) to reproduce this report for use with a Statement of Material Facts.

  
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J.W. MacLeod, B.Sc., P. Eng.

Dated at the City of Vancouver,  
Province of British Columbia,  
This 17th day of September, 1980.

MERV ENGINEERING CORP.  
335 - 885 DUNSMUIR ST.,  
VANCOUVER, B.C. V6C 1N5

PHONE: (604) 689-8325

January 13, 1981

The President & Directors  
Newhawk Gold Mines Ltd.  
#1450-625 Howe St.  
Vancouver, B.C.

Dear Sirs,

RE: PROGRESS REPORT  
SNO GROUP  
SEPT 18, 1980 to JAN 1, 1981

Since my report on your Sno Group was prepared on Sept 17, 1980, Glen E. White Geophysical Consulting & Services Ltd. carried out geochemical and geophysical surveys, at a cost of \$15,500.00, over a small area in the vicinity of the known mineralization on this group. The results of this work are summarized below:

#### GEOCHEMICAL SURVEY

236 samples were collected on a 50 metre grid and analysed for copper, zinc, moly and silver.

No significant silver values were obtained and the highest moly was 11 p.p.m.

Copper and zinc values are anomalous in the vicinity of the known mineralization and to the southwest to the most southerly line sampled.

#### MAGNETOMETER SURVEY

Mag. readings were taken at 25 metre readings on the grid. Values range from a low of 760 to a high of 1820 gammas but no trends are discernible in the plotted results.

#### ELECTROMAGNETIC SURVEY

The Ronka EM-16 survey shows some strong E.N.E. trending anomalies which are interpreted as faults since there is no coincident geochemical results.

#### INDUCED POLARIZATION SURVEY

This survey was carried out with a Hunttec pulsetype unit. A northeast trending anomaly was obtained extending southeast from the known mineralization. The anomaly is open to the east under the lake and to the south by the limit of the survey. This

anomalous area with chargeability readings up to 26 milliseconds is coincident with the copper zinc geochem anomaly.

#### CONCLUSIONS & RECOMMENDATIONS

The work completed to date suggests an extension to the southwest of the known mineralization.

In addition to completing the program recommended in my report of Sept 17, the I.P. and geochem survey should be expanded, the present anomalies tested by bulldozer work and drilling is required to test the area to the east under the lake.

The following is an estimate of the expenditure required to complete the next phase of exploration on your Sno Claims.

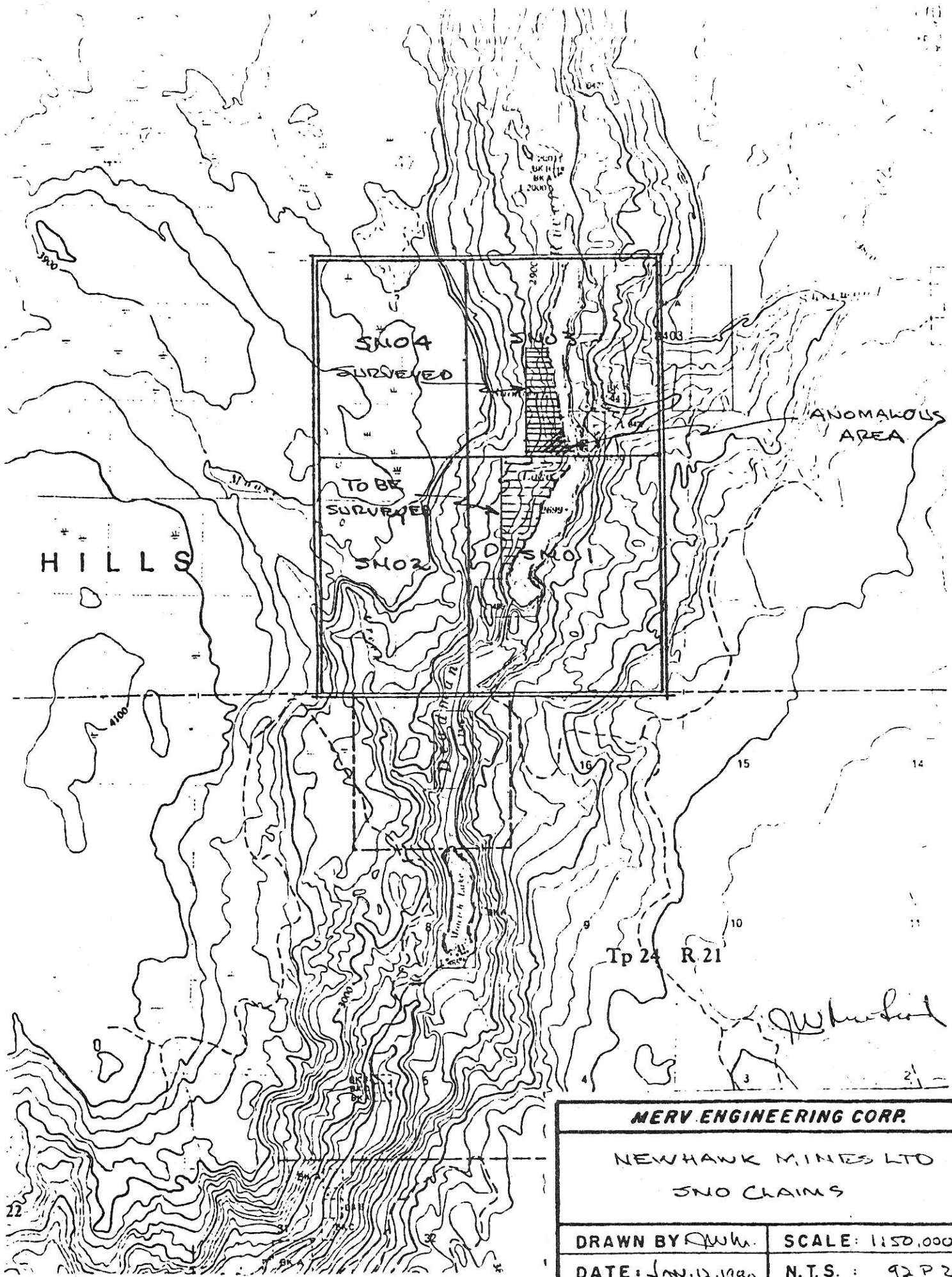
Access road - 2 km @ \$5000 .....	\$10,000.00
Anomaly stripping .....	2,000.00
I.P., Geochem & Geology .....	15,000.00
Diamond Drill - 600 m @ \$110.00 .....	66,000.00
Contingency .....	<u>7,000.00</u>
	<u>\$100,000.00</u>

Respectfully submitted,



J.W. MacLeod, P. Eng.

Vancouver, B.C.  
January 13, 1981



<b>MERV ENGINEERING CORP.</b>	
NEWHAWK MINES LTD SNO CLAIMS	
DRAWN BY <i>R.W.H.</i>	SCALE: 1:50,000
DATE: Jan. 12, 1980	N.T.S.: 92 P 2

CERTIFICATE

I, James W. MacLeod, of 1220 Arbutus Street, in the City of Vancouver, in the Province of British Columbia,

DO HEREBY CERTIFY:

1. That I am a Consulting Engineer, with a business address at #1450-625 Howe Street, in the City of Vancouver, in the Province of British Columbia.
2. That I am a graduate of the University of Alberta with the degree of B. Sc. in Mining Engineering.
3. That I have actively practiced my profession in mineral exploration since graduation in 1946.
4. That I am a registered Professional Engineer in the Province of British Columbia.
5. That this progress report is based on an examination of the SNO Claims carried out on July 31, 1980 and a review of all subsequent work.
6. That I have no interest either directly or indirectly in the property or securities of Newhawk Gold Mines Ltd. (N.P.L.), nor do I expect to receive any.
7. That permission is hereby given to Newhawk Gold Mines Ltd. (N.P.L.) to reproduce this progress report dated Jan 13, 1981 for use with a Statement of Material Facts.

  
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J.W. MacLeod, B. Sc., P. Eng.

Dated at the City of Vancouver,  
Province of British Columbia  
This 13th day of January, 1981