

81-#430
-9346

REPORT

on

COLOSSUS MINE PROPERTY
50°32'N, 125°12'W NTS 92K11E

for

GARDINER RESOURCES INCORPORATED

in the

VANCOUVER MINING DIVISION

BRITISH COLUMBIA

CANADA

by

W.S. Read, B.Sc., P. Eng.
Cobble Hill, B.C.
Canada

9346

30 JANUARY 1981

WAYLAND S. READ, B.SC., P.ENG.
CONSULTING GEOLOGIST

AREA CODE 604-TELEPHONE 743-2279

851 CHERRY POINT ROAD, COBBLE HILL, B.C. V0R 1L0 CANADA

30 January 1981

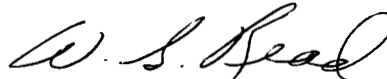
The Board of Directors,
Gardiner Resources Inc.,
812-409 Granville Street,
Vancouver, B.C.
V6C 1T2

Gentlemen:

Please find attached my latest report on your Colossus
Mine Property located about 36 miles north of Campbell River,
B.C.,

The report covers the work completed in 1980 and
recommends a continuing program to further test the copper-
molybdenum property.

Respectfully submitted,

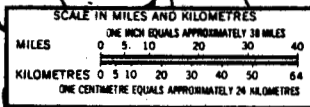
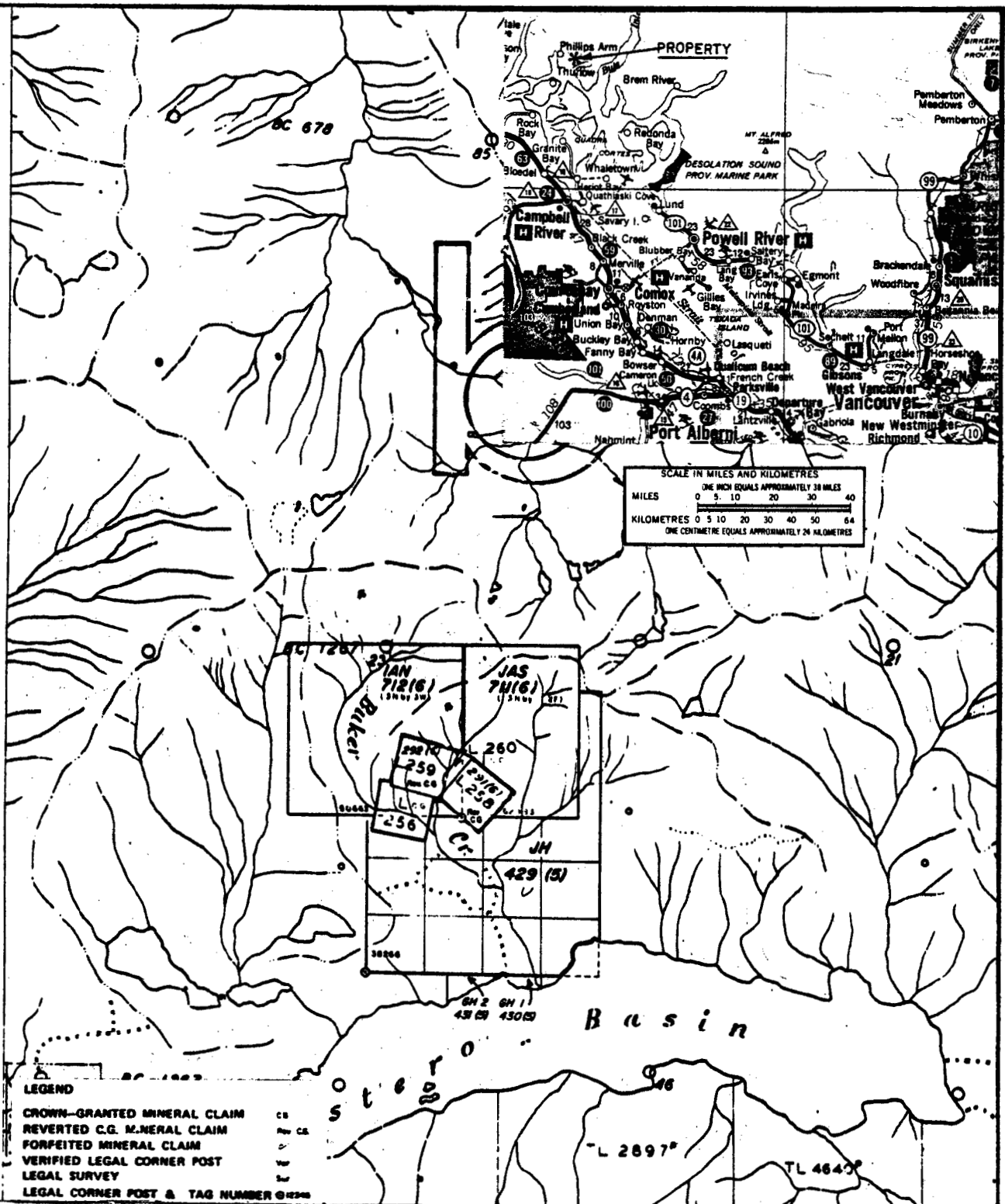


W. S. Read, P.Eng.

WSR:mr

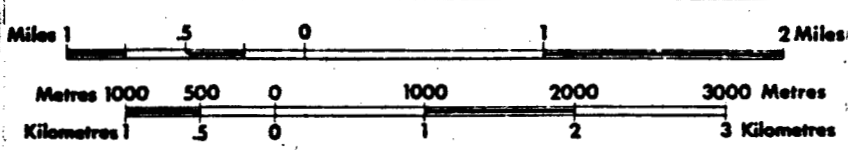
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LEGEND

CROWN-GRANTED MINERAL CLAIM CB
 REVERTED C.G. MINERAL CLAIM CB
 FORFEITED MINERAL CLAIM CB
 VERIFIED LEGAL CORNER POST CB
 LEGAL SURVEY CB
 LEGAL CORNER POST & TAG NUMBER © 1981 CB



GARDINER RESOURCES INC.

LOCATION MAP
 COLOSSUS MINE PROPERTY
 NTS 92K/11E.
 JAN, 1981

WAYLAND S. READ P. ENG. CONSULTING GEOLOGIST.
 COBBLE HILL, B. C.

LOCATION:

The Colossus Mine claims are located in the Vancouver Mining Division, on Buker Creek, on the south-facing mountainside, and on the north side of Estero Basin, an extension of Frederick Arm, which is an arm of the Pacific Ocean. They are located at latitude $50^{\circ}32'N$ and longitude $125^{\circ}12'W$ on map sheet 92K/11E of the National Topographic System. Elevations vary from about 1000 feet to 3500 feet. The 3 mine portals are at 1297', 1460' and 1548 feet. They are on the mainland about 140 air miles (225 Km.) northwest of Vancouver and about 36 miles (58 Km.) north of Campbell River.

ACCESS:

Access is by helicopter or float plane from Campbell River, or by boat to the head of Frederick Arm and thence by logging road about 3 miles (5 Km.) northeast to the portal. The actual road distance is somewhat longer. Estero Basin is only accessible to boats at high slack tide. At the time of my visits the road was unserviceable, and the most practical transportation was by helicopter, which can land at the No. 3 portal site.

Water is available from creeks crossing the property. Flow diminishes in the early fall due to lack of melt water. On my first visit on 10 June 1979 there was still considerable snowpack in the creek area above the upper tunnel, showings, and waterfall.

The cabins from past projects are unusable.

Reopening the No. 3 level portal would greatly aid access to the underground workings. This would require a large front-end loader.

TOPOGRAPHY:

There is great relief in the area with many precipitous slopes consisting of rock cliffs separated by talus slopes and areas of heavy timber. Large fallen trees and underbrush make progress slow. As the logged areas grow in they will become increasingly difficult to traverse. There is excellent timber on the crown-granted claims for saw logs, and mine timber is available near No. 3 portal.

CLIMATE:

Being located on the west coast of mainland British Columbia, the property is in a moderate climate. Although there are no weather records, it is expected that the rain will be heavy with the most snowfall in the late winter. Because of the low elevation, this should not be a serious problem, and mining could be carried on throughout the year.

Heavy snow, followed by rain was encountered while mapping and sampling the No. 2 Adit between 4-11 December 1980, inclusive.

CLAIMS HELD BY COMPANY:

The company advises that it holds the following four crown-granted and reverted crown-granted mineral claims under option, and that the Ian claim, composed of nine units, and the Jas claim composed of six units, are held for the company.

It is believed that the company retains counsel to insure title to the claims.

The writer has personally inspected the legal corner post of the Ian claim. The Jas claim was staked subsequent to this inspection.

The surveyed corner posts of the old crown-granted claims have not been located but copies of several maps show the tunnels and mineralization to be on the Colossus and the Portage claims. The Ian and Jas claims in part overstate the crown grants and extend the area of coverage.

<u>CLAIMS</u>	<u>LOT.NO.</u>	<u>ACRES</u>	<u>NO.UNITS</u>	<u>EXPIRY DATE</u>
Colossus	256	46.8		
Bluebell	258	51.2		
Portage	259	51.65		
Champness Fr.	260	8.4		
Ian 712(6)			9	June 1981
Jas 711(6)			6	June 1981

HISTORY:

The B.C. Minister of Mines Reports show activity on the Colossus property since 1899. Operations were carried on by Kamloops Mines Company Limited from 1899 to 1903 and 1560 feet of tunnel and 160 feet of winzes and raises were completed.

The claims reverted in 1921 and were acquired by Dixon and Rowley of Vancouver in 1922. It became known as the Lagoon group at that time. The Minister of Mines Report for 1924 gives the following footages of drifting and cross-cutting--elevation from other sources:

<u>LOCATION</u>	<u>ELEVATION (FT)</u>	<u>FOOTAGE</u>	<u>METRES</u>
No.1 Level (Upper)	1548	419	127.7
No.2 Level (90'below)	1461	690	210.3

<u>LOCATION</u>	<u>ELEVATION (FT)</u>	<u>FOOTAGE</u>	<u>METRES</u>
Intermediate Level (56' below No.2)	Mentioned but no footage given		
No.3 Level (155' below No.2)	1297	<u>1150</u>	<u>350.5</u>
TOTAL		2259	688.5

The report in part states: "There appear to be several occurrences of ore in the Lagoon group. These orebodies are lenticular in structure and very erratic. . . orebodies exposed in the underground workings will average 4 and 6 per cent copper." No location or dimensions were given.

Eight samples attributed to the "West Ore-Body" averaged 4% copper over a 7.5 ft. average width, a further nine samples averaged 5.7% copper over a 6.0 ft. average width. No location or length of sampling was given. There is a brief description in the 1927-28 reports.

The Colossus Copper Co. Ltd., was incorporated in May 1929 and holdings were increased to 15 claims. The old workings were cleaned out and the trail to the beach repaired. A good summary is given in the 1929 Minister of Mines Report. Sampling indicated 1.5 - 3.5 percent copper, but apparently no new work.

The next reports on the property are in 1960-61 when Phelps Dodge Corporation of Canada Limited had an option on four crown-granted and forty-one recorded mineral claims and fractions from H.W.Gardiner of Vancouver. The trail from Estero Basin was reopened and geological mapping done on surface and underground. Soil sampling is reported to have been done on the crown grants and eight of the Fred group of located claims, but there is no indication of sample density, which elements were checked, or the results.

In 1961 from February to June a crew of four to six men rehabilitated three tunnels and completed 363 feet of diamond drilling in three underground holes.

In 1964 H.O. Howey, P.Eng., spent a total of five days with an assistant travelling to the property and sampling the No. 2 level and an intermediate level. A total of 58 samples were taken and assayed for copper. Six composites were assayed for gold, silver and MoS_2 . The sampling procedure is quoted. "The walls of the drifts and crosscuts were sampled but not the backs. One sample was taken for each 10 foot length of drift, samples being taken at the intersecting points of a grid 2.5' vertically and at the back, bottom, and halfway horizontally. Approximately half a handful was taken from each sampling location and sampling locations were adhered to regardless of the nature of the rock". The conclusions were that the gold and silver content is not significant and the copper and molybdenum values are too low to provide a profitable operation.

In 1966-67 Alquin Mines Ltd., did work on the property. The report lists three adits with interconnecting raises. Mining completed by former companies included 2,600 feet of drifting and 270 feet of raises. This work was done to explore occurrences of chalcopyrite and molybdenite in a silicified shear zone in granodiorite. Geological and geophysical surveys were conducted, 16 diamond drill holes totaling 1,600 feet were drilled along with access road and camp construction.

In 1967 five holes totaling 450 feet were diamond drilled.

In 1973 Dr. A.G. Pentland wrote a report for Slave Point Consolidated Mines Ltd., (N.P.L.) recommending a \$50,000.00 program. It appears that the Portage C.G. Lot 259 on which are most of the showings was not included in the holdings at that time. There appears to have been limited

work in the summer of 1973.

In 1979 Gardiner Resources optioned the four crown-granted claims and staked one claim of 9 units. The No. 1 portal was located and an attempt was made to reopen the No. 2 portal by hand, but was unsuccessful due to insufficient time. The No. 3 portal was found to be caved and needed heavy equipment, such as a front-end loader, for reopening.

In 1980 Gardiner Resources reopened access into the No.2 portal by hand mucking. The ladders in the raise from No. 2 level down to the sublevel and No. 3 level were repaired or replaced and a start made to establish ladders from No. 2 level up to No. 1 level. A pressure pump was used to wash the walls of No. 2 level. Some work is reported to have been done on the road from the head of Frederick Arm but additional work is necessary to gain property access by land from that point. During 1980 all access was by helicopter from Campbell River.

The writer, with a two man sampling crew made up of J.B. Riffal and E. Becker, flew to the property from Campbell River on 4 December 1980 and returned on 11 December to Campbell River. Accommodation was a tent in the yard at No. 3 level. About one foot of snow made access over windfalls and steep slopes somewhat hazardous.

The No. 2, intermediate and No. 3 levels were examined. Sampling and geological mapping was conducted on No. 2 level. Most of the sampling was concentrated to test the mineralized areas of the adit. Forty-four samples were taken using hammer and moil. The accumulative width was 122.36 metres, for an average sample width of 2.78 metres. Johnston Terminals estimated the weight of the 44 samples at 700 lbs, (318.18 Kg.) for an average of 15.9 (7.21 Kg.) per sample or 2.6 Kg. per metre of sample.

GEOLOGY:

The Colossus Mine property lies within the Coast Range batholith of granodiorite which has been locally sheared and intruded by basic dykes. Most data from past programs is missing, however former reports have given estimates of up to 250,000 tons grading between 2.5% and 3.5% copper, which would contain a quantity of molybdenite and minor amounts of gold and silver.

The mineral occurrences mapped and sampled on the No. 2 level consisted of streaks and blebs of pyrite, chalcopyrite and molybdenite in a predominantly quartz matrix with sharp contacts dipping steeply to the northwest. However, the streaks of mineralization within the quartz appear to frequently dip to the north or northwest at angles between 22° and 47° . There was less secondary mineralization, malacite and azurite, than found above in the No. 1 level adit. In certain areas the grey granodiorite had pink potash feldspar alteration.

The east-southeast and south-east faults dipped northeast, usually at steep angles, and showed right-hand displacement on the mineral zone that has an approximate strike of $N60^{\circ}E$.

Detailed geological mapping with accurate survey control on both plan and section, plus additional sampling on the other levels and raises is necessary to outline the mineral blocks and determine structural controls that would aid in the search for additional mineralization.

The main mineralized zone sampled on the No. 2 level, where exposed by mine openings, was about 150 feet (46 metres) in length, with an approximate width varying from 25-30 feet (7.6-9.1 metres). Twenty-six horizontal continuous chip samples gave a weighted average of copper 1.27%, Mo. 0.053% or MoS_2 0.088%. In addition to the showings in the two west drifts, at the end of the east drift, on the south wall and the short

crosscut was a mineralized quartz zone that had a sampled width of 6.4 metres with the actual width still open. Five samples of the drift and crosscut gave a weighted average of copper 1.06%, Mo 0.036% or MoS₂ 0.060%. This zone is open to the east and according to the composite plan, is 110 feet (33.6 metres) east of the first drift northeast on No. 1 level. The O.B. Smith report tells of a mineral showing above the waterfall: "Another body of ore 16 - 17 feet thick lays 100 feet in the hangingwall country above the waterfall. This sampled 4.9% copper, across a width of 16 feet." The possibility of a surface exposure should be checked. Mention is also made of a geochemical anomaly 4000 feet (1210 metres) east of the workings which would bear investigating.

Underground drill hole collars with bearing and angle were plotted in the event old data on these holes can be secured.

Down the raise from N. 2 level, the mineralization is cut off against diorite. The average contact strikes about 100° and dips 24° north. This lower contact in the raise is about 5 metres (16.5 feet) above the floor of the sublevel collar. The collar of the sublevel is in granodiorite and the first quartz is observed in the back at 4.3 metres from the collar. Beyond there is mixed mineralized quartz and granodiorite tongues. There was insufficient time to map or sample this sublevel during the last program. This area will require further study to determine the reason for discontinuity of the mineral deposit and to locate possible extensions.

SAMPLING:

Sampling reliability has long been a concern to those associated with this property. The mineralization is in the form of streaks and blebs throughout the quartz. Sampling the deposit takes considerable effort to get an accurate sample for assay as the softer mineral zones are often

indented on the tunnel walls and would not likely be accurately represented in a shallow sample cut. In such case the assays would be lower than the true metal content. The 1929 Minister of Mines refers to this as follows: "The crushed material in the zone has naturally caused an irregular mineralization making conclusive sampling rather difficult...A great number of samples have been taken, resulting in averages of from 1.5 - 3.5 percent copper. It has been found in sampling that during the many years the property has been opened up there has been a leaching action on the exposed ore, forming a coating which, when included in sampling, give a lower average than if this outside coating were removed and sampling done."

To aid the sampling the No. 2 level had been washed with a pressure hose. Because of the steep-dipping nature of the mineral zone, it had been decided to cut horizontal samples along the tunnel walls and across the back at intersections. An added complication was found during mapping with the observation that the streaks of pyrite, chalcopyrite, molybdenite within the quartz matrix often dipped at an angle between 22° and 47° , much flatter than the quartz zone.

After laying out the sampling, a two-man sample crew cut large continuous horizontal samples from the tunnel walls with a hammer and tungsten carbide tipped moil. A plastic basin was used to catch the chips. Most samples would nearly fill a 12 X 18 inch plastic sample bag. Forty-four samples were cut across a total of 122.36 metres. Johnston Terminals estimated the weight of the 44 samples at 700 pounds (318.18 Kg.) for an average of 15.9 pounds (7.21 Kg.) per sample, or 2.6 Kg. per metre of sample

Two vertical samples were cut to check between vertical and horizontal sampling. All other procedures were similar except for direction of sample. The comparison is as follows:

<u>SAMPLE NO.</u>	<u>DIRECTION</u>	<u>WIDTH (m)</u>	<u>Cu%</u>	<u>Mo%</u>
19508	Horizontal	3.00	2.56	0.268
19542	Vertical	2.13	2.66	0.144
19543	Horizontal	3.00	0.34	0.005
19544	Vertical	3.80	0.44	0.002

S U M M A R Y

The Collosus Mine property on the mainland about 140 air miles (225 Km.) northwest of Vancouver, has been explored for copper sporadically since 1899. Later, molybdenite was recognized and very minor quantities of gold and silver.

The property has been developed by three adit levels and raises.

Through the years work on the property has been recommended by several highly qualified engineers. Most of the data from past programs such as assay maps, diamond drill plots, etc., are missing and have not been available to the writer. However, former reports have given unconfirmed estimates of up to 250,000 tons grading between 2.5 and 3.5% copper, which would contain a quantity of molybdenite and minor amounts of gold and silver.

Work by Gardiner Resources in 1980 consisted of access into the No.2 level adit, repair or replacement of the ladders in the raise between No. 2 and No. 3 levels, washing the walls of No. 2 level, and mapping and sampling of No. 2 level under the direction of the writer.

The main mineral zone on No. 2 level, where exposed by underground workings, appears to be at least 150 feet (46 metres) long by 25-50 feet (7.6 - 9.1 metres) wide. Twenty-six horizontal wall and back samples through this zone had a weighted average of 1.27% copper and 0.053% Mo. or 0.088% MoS₂.

The drift to the east appeared to have just entered a strong mineralized quartz zone when stopped. This was sampled across a width of 6.4 metres with width and length still open. Five samples of the drift and crosscut gave a weighted average of copper 1.06%, Mo. 0.036% or Mo.S₂ 0.060%. This presents an interesting exploration target.

CONCLUSIONS AND RECOMMENDATIONS

The property has responded positively to the first exploration efforts and work should continue to confirm and expand tonnage. Detailed geological mapping on plan and section should be particularly helpful. An effort should continue to find old maps and drill results to correlate with the new mapping.

It is recommended that a front-end loader be brought in from the logging operation at the head of Frederick Arm to repair the road to four-wheel-drive standards and reopen the lower adit (No. 3 level), retimbering the portal as necessary for safety.

A plywood cabin at least 12 X 20 should be constructed for accommodation during projects and dry storage for bulky equipment between projects. It would soon repay its cost in saved helicopter trips.

Because of sloughing, the No. 2 level portal will possibly be covered and need to be reopened. The back of No. 2 level will need to be scaled from the portal to the first crosscut.

The balance of the raises should be reladdered, in particular from No. 2 to No. 1 level and from No. 1 level to surface.

The walls of the underground workings, in particular No. 1 and No. 3 levels, should be washed.

The surface area should be prospected in detail and the surface showings should be drilled and blasted on section to give a fresh surface for mapping and sampling.

This work should all be correlated with surveying and geological mapping.

Diamond drill targets should be established at that time.

ESTIMATED COSTS OF PROJECTED EXPLORATION WORK

Road repair and yard clearing	5,000.00
Open No.3 Level and retimber portal	11,000.00
Reopen No.2 level	1,000.00
Finish rehabilitating raises	1,500.00
Instal water lines and wash adit walls	1,500.00
Camp construction	4,000.00
Accommodation	8,000.00
Transportation	9,000.00
Sampling	3,500.00
Assaying	1,500.00
Geological Mapping	8,000.00
Prospecting & Trenching	4,500.00
Engineering and Reports	<u>8,500.00</u>
	67,000.00
Contingencies	<u>8,000.00</u>
	\$75,000.00

The follow-up to this program will cost at least \$100,000.00 and be based on the results of this program.

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Dodge Corporation of Canada
August 1, 1960
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October 21, 1966 (in part)
7. Pentland, A.G. 1973, Report on Colossus Group for
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(N.P.L.)
(Maps missing)
8. Read, W.S. 1979, Report on Colossus Mine Property for
Gardiner Resources Inc.
19 December 1979

CERTIFICATE OF QUALIFICATIONS

I, Wayland Stuart Read of Cherry Point Road, Cobble Hill, B.C.

do hereby certify that:

1. I am a practising mining geologist and my address is Cherry Point Road, Cobble Hill, B.C.
2. I am a graduate in Geology from Acadia University, Wolfville, Nova Scotia, and have been granted the degree of Bachelor of Science in Geology and have engaged in practising my profession for the past twenty years.
3. I am a member of the Association of Professional Engineers of British Columbia and the Yukon Territory, a Fellow of the Geological Association of Canada and a Member of the Canadian Institute of Mining and Metallurgy.
4. This report is based on my personal examination of the Colossus Mine property during the fall of 1979, research of reports, and the conducting of the mapping and sampling project on the No. 2 level in early December 1980.
5. I have no direct or indirect interest in the property or securities of Gardiner Resources Incorporated.

Respectfully submitted,



Wayland S. Read, B.Sc., P.Eng.
Consulting Geologist

Cherry Point Road,
Cobble Hill, B.C.

30 January 1981.

GARDINER RESOURCES INC. - COLOSSUS MINESAMPLE AVERAGES No. 2 Level

<u>SAMPLE #</u>	<u>WIDTH(M)</u>	<u>ASSAY COPPER%</u>	<u>WIDTH X ASSAY</u>	<u>ASSAY Mo.%</u>	<u>WIDTH X ASSAY</u>	<u>MoS₂%</u>
15903	3.00	1.44	4.32	0.104	0.312	
15902	3.00	2.56	7.68	0.208	0.624	
15901	3.00	1.04	3.12	0.154	0.462	
15907	1.10	0.60	0.66	0.118	0.129	
15908	3.00	2.56	7.68	0.268	0.804	
15909	2.00	0.34	0.68	0.172	0.344	
15910	3.00	0.95	2.85	0.068	0.204	
15911	3.00	0.79	2.37	0.070	0.210	
15912	2.00	0.25	0.50	0.010	0.020	
15916	2.50(est)	0.90	2.25	0.049	0.122	
15917	2.70(est)	4.68	12.63	0.088	0.237	
15918	2.40(est)	1.22	2.92	0.004	0.009	
15919	3.00	0.53	1.59	0.005	0.015	
15920	2.50	0.18	0.45	0.004	0.010	
15943	3.00	0.34	1.02	0.005	0.015	
15921	2.10(est)	2.61	5.48	0.013	0.027	
15922	4.00	0.25	1.00	0.002	0.008	
15923	4.00	0.90	3.60	0.006	0.024	
15924	1.00	13.50	13.50	0.078	0.078	
15925	3.00	1.51	4.53	0.008	0.024	
15926	3.00	0.77	2.31	0.003	0.009	
15927	3.70	1.04	3.84	0.009	0.033	
15928	1.50	0.08	0.12	0.002	0.003	
15929	1.80	0.16	0.28	0.002	0.003	
15930	3.00	0.40	1.20	0.002	0.006	
15931	4.00	0.70	2.80	0.002	0.008	
TOTAL	<u>70.30</u>		<u>89.38</u>		<u>3.740</u>	
AVERAGE		<u>1.27</u>		<u>0.053</u> X	1.668 =	<u>0.088</u>

15932	2.40	1.86	4.46	0.007	0.016	
15933	4.00	1.92	7.68	0.088	0.352	
15934	2.70	0.13	0.35	0.016	0.016	
15935	3.00	0.25	0.75	0.022	0.043	
15936	1.90	0.82	1.55	0.015	0.028	
TOTAL	<u>14.00</u>		<u>14.79</u>		<u>0.505</u>	
AVERAGE		<u>1.06</u>		<u>0.036</u> X	1.668 =	<u>0.060</u>



CHEMEX LABS LTD.

APPENDIX B

212 BROOKSBANK AVE
NORTH VANCOUVER, B.C.
CANADA V7J 2C7
TELEPHONE: (604)984-022
TELEX: 043-5149

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO : Read, W. S.
851 Cherry Point Road
Cobble Hill, B.C.

CERT. # : A8011447-001
INVOICE # : I8011447
DATE : 07-JAN-81
P.C. # : NONE

Sample description	Prep code	Cu percent	Pb percent				
15901	208	1.04	0.154	--	--	--	--
15902	208	2.56	0.208	--	--	--	--
15903	208	1.44	0.104	--	--	--	--
15904	208	0.44	0.136	--	--	--	--
15905	208	0.61	0.035	--	--	--	--
15906	208	0.54	0.142	--	--	--	--
15907	208	0.60	0.119	--	--	--	--
15908	208	2.56	0.263	--	--	--	--
15909	208	0.34	0.172	--	--	--	--
15910	208	0.96	0.086	--	--	--	--
15911	208	0.79	0.070	--	--	--	--
15912	208	0.25	0.010	--	--	--	--
15913	208	0.12	0.017	--	--	--	--
15914	208	0.15	0.003	--	--	--	--
15915	208	0.27	0.020	--	--	--	--
15916	208	0.90	0.049	--	--	--	--
15917	208	4.68	0.038	--	--	--	--
15918	208	1.22	0.004	--	--	--	--
15919	208	0.53	0.005	--	--	--	--
15920	208	0.13	0.004	--	--	--	--
15921	208	2.61	0.013	--	--	--	--
15922	208	0.25	0.002	--	--	--	--
15923	208	0.90	0.006	--	--	--	--
15924	208	13.50	0.078	--	--	--	--
15925	208	1.51	0.008	--	--	--	--
15926	208	0.77	0.003	--	--	--	--
15927	208	1.04	0.009	--	--	--	--
15928	208	0.08	0.002	--	--	--	--
15929	208	0.16	0.002	--	--	--	--
15930	208	0.40	0.002	--	--	--	--
15931	208	0.70	0.002	--	--	--	--
15932	208	1.86	0.007	--	--	--	--
15933	208	1.92	0.008	--	--	--	--
15934	208	0.13	0.016	--	--	--	--
15935	208	0.20	0.022	--	--	--	--
15936	208	0.82	0.015	--	--	--	--
15937	208	0.24	0.180	--	--	--	--
15938	208	0.06	0.008	--	--	--	--
15939	208	0.02	0.024	--	--	--	--
15940	208	0.07	0.005	--	--	--	--

.....
W. Amadio
Registered Assayer, Province of British Columbia



MEMBER
CANADIAN TESTING
ASSOCIATION



CHEMEX LABS LTD.

212 BROOKSBANK AVE
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C
 TELEPHONE (604)984-0211
 TELEX 043-5259

• ANALYTICAL CHEMISTS

• GEOCHEMISTS


• REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO : Read, W. S.
 351 Cherry Point Road
 Cobble Hill, B.C.

CERT. # : A8011447-002
 INVOICE # : I8011447
 DATE : 07-JAN-81
 P.C. # : NONE

Sample description	Prep code	Cu percent	Mo percent				
15941	203	0.06	0.001	--	--	--	--
15942	203	2.66	0.144	--	--	--	--
15943	203	0.34	0.005	--	--	--	--
15944	203	0.44	0.002	--	--	--	--



 Registered Assayer, Province of British Columbia

GARDINER RESOURCES INC.

STATEMENT OF COSTS
INCURRED IN RELATION
TO

1981 GEOLOGICAL REPORT
BY

W.S. READ. P. ENG.

TABLE OF CONTENTS

- A. WAGES
- B. CAMP SUPPLIES
- C. TRANSPORTATION
- D. PROFESSIONAL SERVICES
- E. ASSAYING

A. WAGES

July 10-17	- 8 days @\$ 80.	\$ 640.00
	8 days @ 60.	480.00
	7 days @ 100.	700.00
	2 days @ 75.	150.00
October 13-30	15 days @ 100.	1500.00
	17 days @ 100.	1700.00
November 17-24	8 days @ 100.	800.00
	8 days @ 70.	560.00
December 3-11	9 days @ 100.	900.00
	9 days @ 100.	<u>900.00</u>
Total Cost wages 1980		\$8330.00

B. CAMP SUPPLIES _ (food, equipment material)

July 10-17	\$ 356.50
October 15-December 11	<u>2012.67</u>
Total Cost 1980	\$ 2369.17

C. TRANSPORTATION

July 10-17	- helicopter 1.4 hr. @ 380	532.00
	helicopter fuel	38.06
October 13-30	Helicopter 5.4 hr @ 350	1890.00
	helicopter fuel	177.30
	surface transportation	321.26
November 17-24	helicopter 1.9 hr @ 350	665.00
	helicopter fuel	62.70

TRANSPORTATION continued

December 3-11	helicopter 1.8 hr @ 350	630.00
	helicopter fuel	59.40
	surface transportation	<u>91.80</u>
Total transportation cost		\$4467.52

D. PROFESSIONAL SERVICES. - mapping, sampling, supervision, report research & preparation

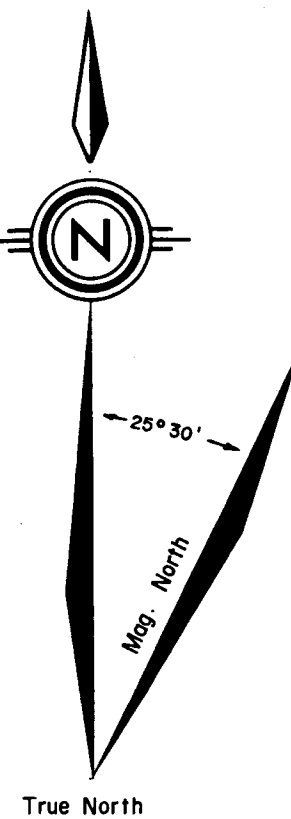
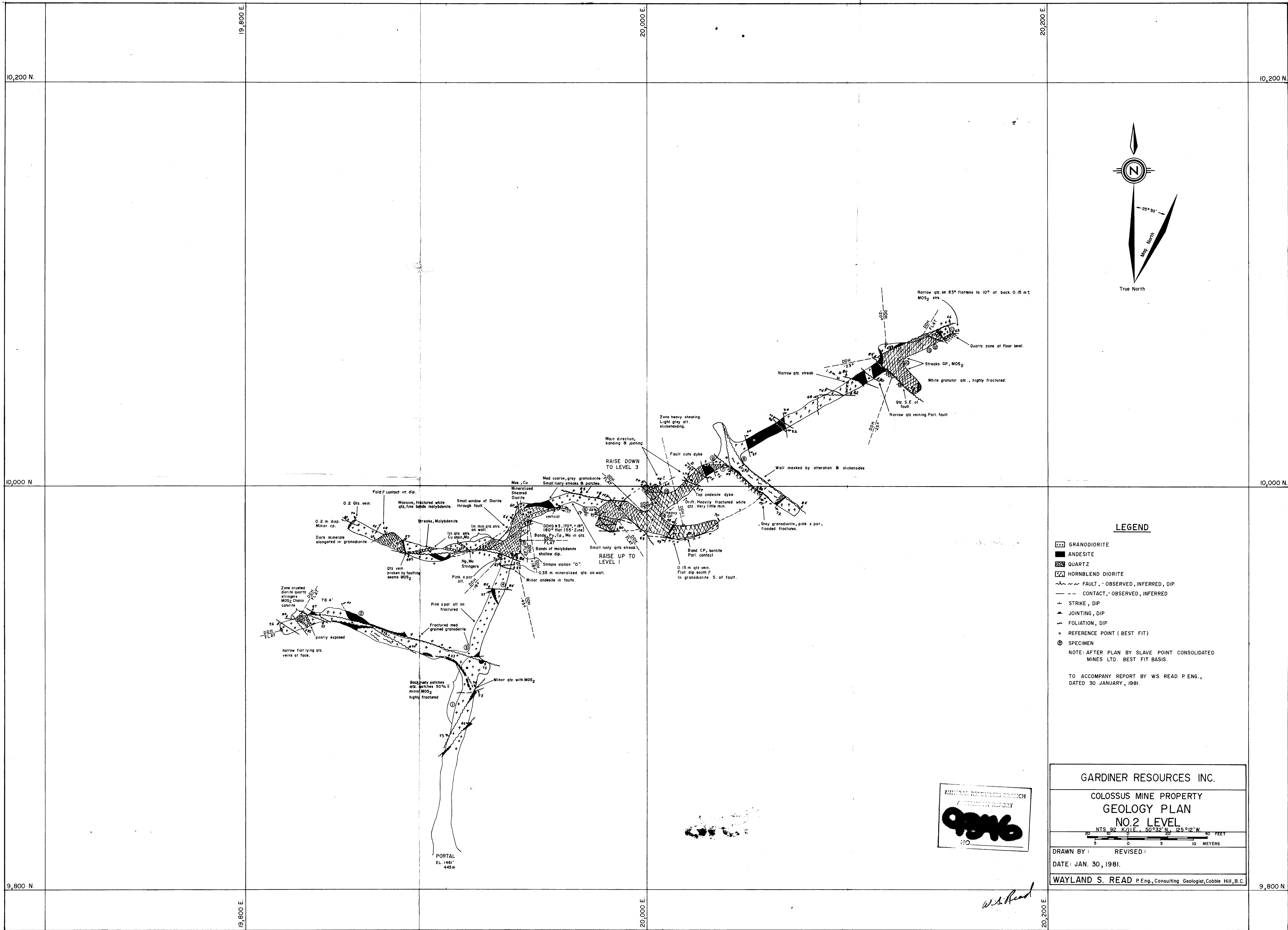
December 2-15, 1980	13 days @ 350	4550.00
January 15-30, 1981	9½ days @ 350	3325.00
	Drafting	<u>234.00</u>
Total cost		\$8109.00

E. ASSAYING

44 rock channel samples @ 11.50	506.00
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TOTAL COSTS

A. Wages	8,330.00
B. Camp Supplies	2,369.17
C. Transportation	4,467.52
D. Professional Serv.	8,109.00
E. Assaying	<u>506.00</u>
Total	\$23,781.69



LEGEND

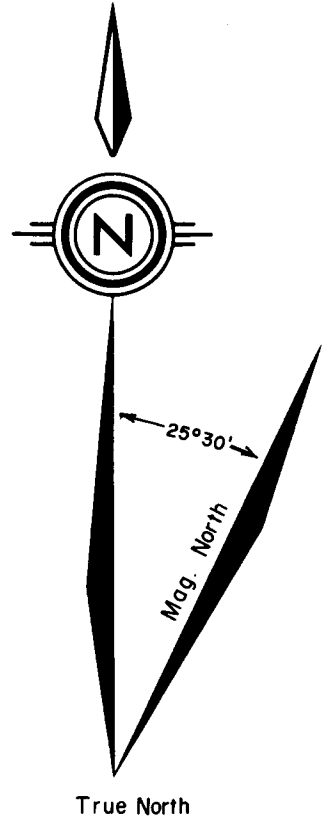
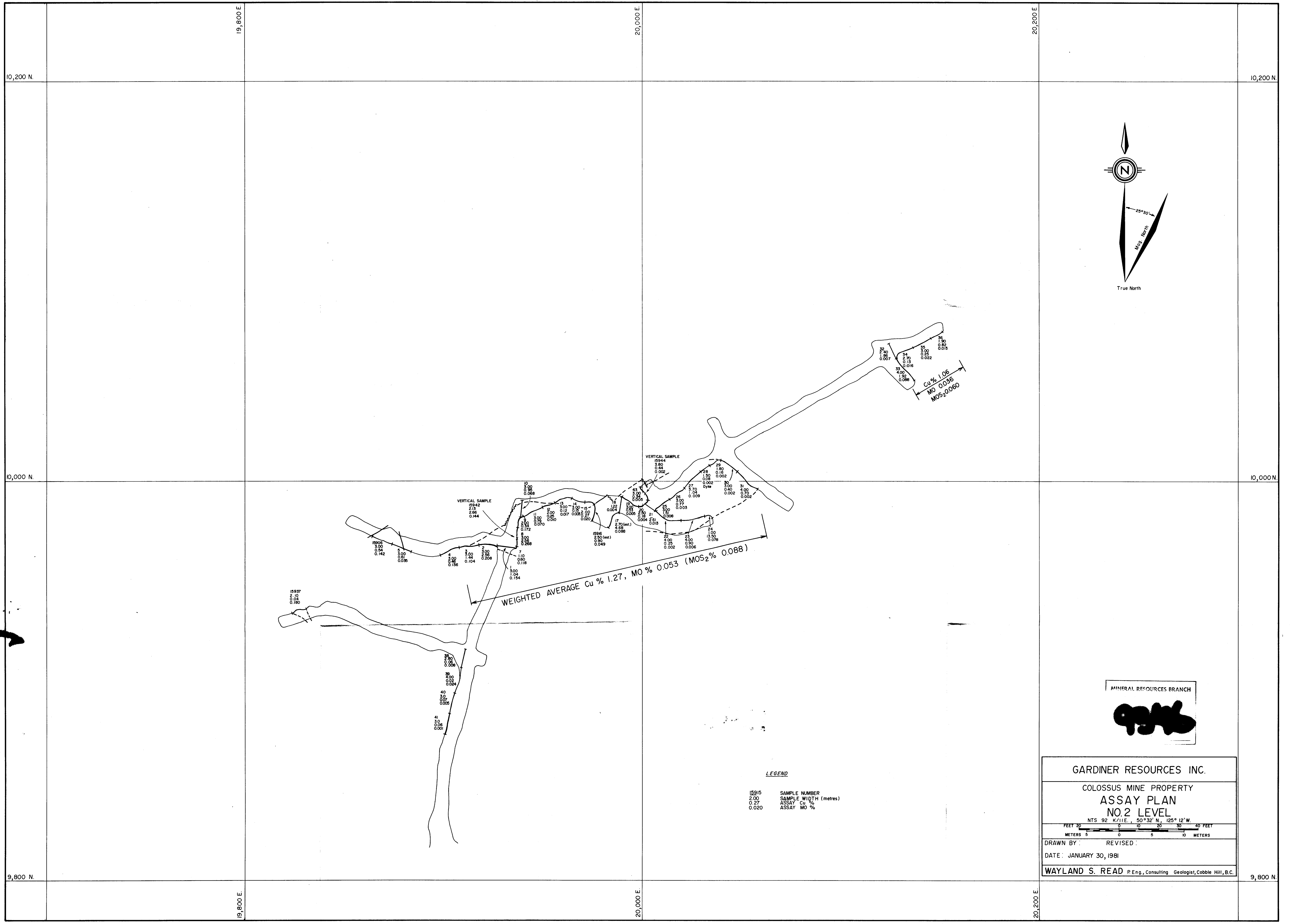
- ▨ GRANODIORITE
- ANDESITE
- ▨ QUARTZ
- ▨ HORNBLende DIORITE
- FAULT, - OBSERVED, INFERRED, DIP
- CONTACT, - OBSERVED, INFERRED
- ⊥ STRIKE, DIP
- ⊥ JOINTING, DIP
- ⊥ FOLIATION, DIP
- REFERENCE POINT (BEST FIT)
- ⊙ SPECIMEN

NOTE: AFTER PLAN BY SLAVE POINT CONSOLIDATED MINES LTD. BEST FIT BASIS.
TO ACCOMPANY REPORT BY WS. READ P. ENG., DATED 30 JANUARY, 1981.

MINERAL RESOURCES BRANCH
A TECHNICAL REPORT
9816
NO.

GARDINER RESOURCES INC.
 COLOSSUS MINE PROPERTY
 GEOLOGY PLAN
 NO. 2 LEVEL
 NTS 92 K/11E., 50°32' N, 125°12' W
 0 5 10 METERS
 DRAWN BY: REVISED:
 DATE: JAN. 30, 1981.
 WAYLAND S. READ P. Eng., Consulting Geologist, Cobble Hill, B.C.

W.S. Read

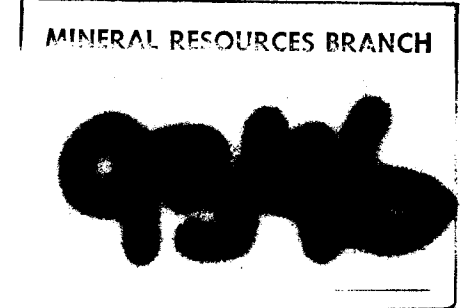


WEIGHTED AVERAGE Cu % 1.27, MO % 0.053 (MOs₂ % 0.088)

Cu % 1.06
MO 0.036
MOs₂ 0.080

LEGEND

15915 SAMPLE NUMBER
2.00 SAMPLE WIDTH (metres)
0.27 ASSAY Cu %
0.020 ASSAY MO %



GARDINER RESOURCES INC.
 COLOSSUS MINE PROPERTY
 ASSAY PLAN
 NO.2 LEVEL
 NTS 92 K/11E., 50°32' N., 125° 12' W.
 FEET 20 0 10 20 30 40 FEET
 METERS 5 0 5 10 METERS
 DRAWN BY: REVISED:
 DATE: JANUARY 30, 1981
 WAYLAND S. READ P.Eng., Consulting Geologist, Cobble Hill, B.C.

9,800 N.