

'81-#488-#

DRILLING
REPORT ON THE
EXPLORATION OF THE KAM' MINERAL PROPERTY

for

LAKWOOD MINING COMPANY LIMITED

and

GREEN VALLEY MINE INC.

Kamloops M.D.

92I/10 E

50° 36

120° 34.5

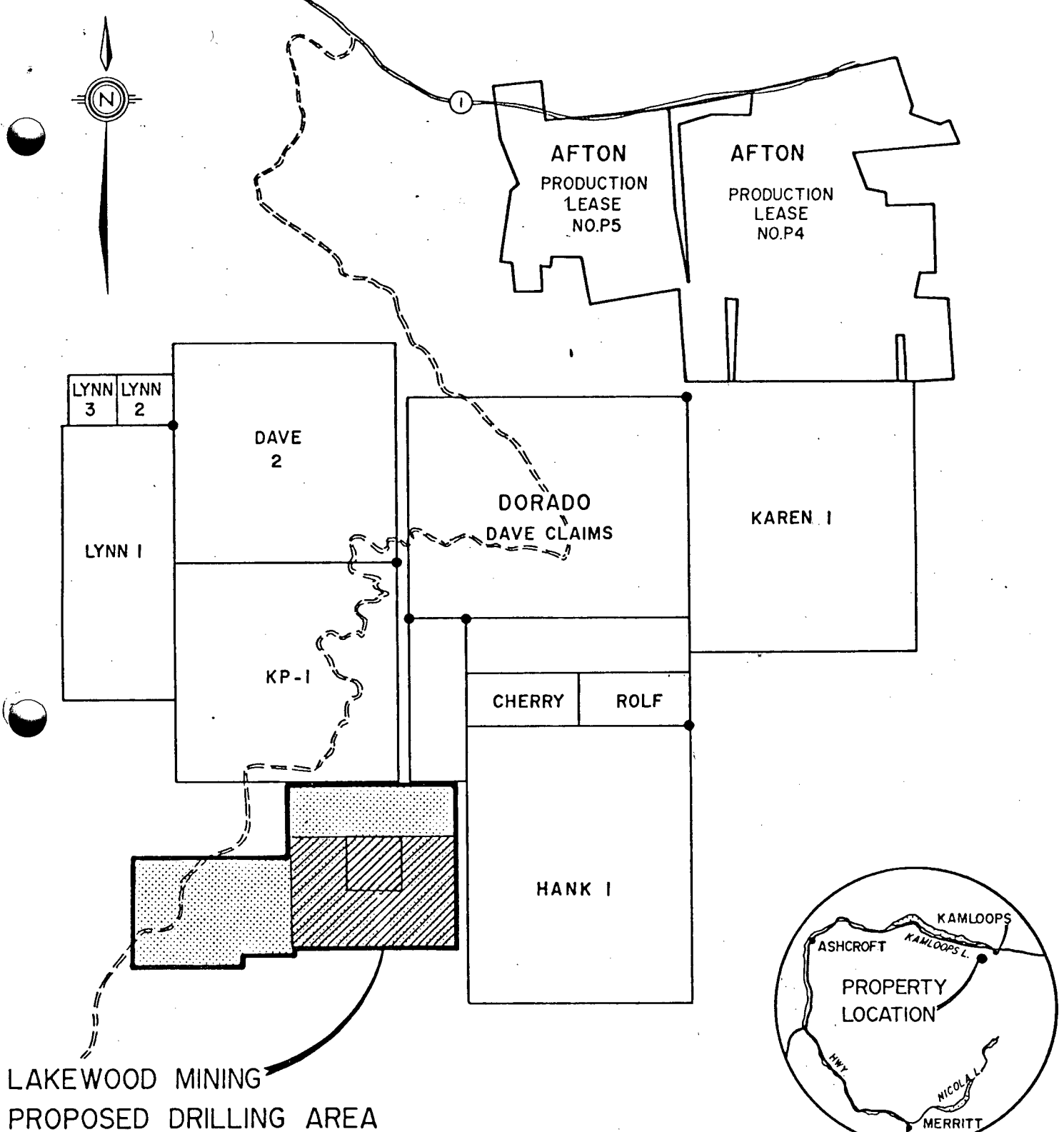
by

E.D. CRUZ, P. Eng
PEMEX CONSULTANTS LTD.
1006-750 W. Pender St.
Vancouver, B.C.
V6C 2T8

MINERAL RESOURCES BRANCH ASSESSMENT REPORT 9271 NO. _____
--

January 15, 1981

part 2
of 3



LAKWOOD MINING
PROPOSED DRILLING AREA

FIG. 1

LAKWOOD MINING CO.LTD.

KAM PROPERTY

KAMLOOPS MINING DIVISION

MAP SHOWING PROPOSED DRILLING



SCALE IN METRES

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SUMMARY:

The KAM mineral claims jointly owned by Lakewood Mining Company Limited and Green Valley Mine Inc. are situated about 19 kilometers southwest of the City of Kamloops in the Province of British Columbia.

The claims are underlain by fragmental greenstone member of the Triassic Nicola group. The center of the property is about five kilometers southwest of the western contact of the Iron Mask batholith hosting the important copper deposits and prospects in the area. Diamond drilling of the property disclosed the presence of native copper mineralization in widely spaced fractures and slip planes associated with volcanics. This type of occurrence which is considered quite unusual may represent fringe effect of blind intrusive beneath the volcanic capping.

In order to substantiate the above theory, further exploration by percussion drilling on a grid pattern should be conducted to be followed by diamond drilling should a target area be outlined. The above programme is estimated to cost approximately \$208,000.00.

INTRODUCTION:

This report, on the KAM mineral claims jointly owned by Lakewood Mining Company Limited (60%) and Green Valley Mines Inc. (40%), was written at the request of Mr. Charles Boitard. It presents an evaluation of the result of previous exploration on the property based on the writer's examination of the diamond drill cores and from published and unpublished reports, both government and private, as well as from oral communications with a consulting geologist involved in the supervision of the drilling programme. A two-phase exploration programme is recommended.

LOCATION AND ACCESS:

The property is situated at the headwaters of Cherry Creek in the following approximate geographic position: $50^{\circ} 36'$ N. Latitude and $120^{\circ} 34'$ W. Longitude. It is approximately six kilometers Southwest of Afton Mines in the Kamloops Mining Division.

Access to the claims from the City of Kamloops is via Highway No. 1 west for about 20 kilometers thence via the Cherry Creek road for about 7 kilometers from which a 4 - wheel drive access road turns off to the southeast leading to the property.

PHYSIOGRAPHY :

The claim area occupy a portion of the eastern slopes of Greenstone Mountain and partly straddles Cherry Creek. Relief is moderate with elevations ranging from 1200 meters to 1400 meters above sea level. The whole terraine is drained by the northeasterly flowing Cherry Creek and its

tributaries.

Vegetation is characterized by open forest with moderate to thick underbrush.

PROPERTY:

Records from the Gold Commissioner's office showed that the property consist of four contiguous claims of fifteen units staked by Mr. Charles Boitard. Details are as follows:

<u>Name of Claim</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Dated Recorded</u>
KAM	9	1917	June 15, 1979
KAM #2	4	2901	Aug. 26, 1980
KAM #2	1	3062	Nov. 10, 1980
KAM #4	1	3063	Nov. 10, 1980

Any legal aspects of the claims are beyond the scope of this report.

HISTORY:

For purposes of discussion, the property is referred to as KAM claims encompassing the total claim holdings of the Companies.

These claims covers a portion of the former Rich Group previously owned by Lewes River Mines Limited and Copper Giant Mining Corporation. It was acquired by Mr. Charles Boitard in 1979 when the ground came open for staking.

The only work of record on the property prior to the present owners was the induced polarization and magnetometer surveys conducted by the former owners in the summer of 1972. These surveys showed discouraging

results. The chargeability response was considered very weak registering maximum readings of 0.75 milliseconds. The magnetometer survey likewise showed weak response.

The present owners conducted a limited amount of wide spaced VLF-EM survey followed up by Max-Min Electromagnetics. Results, documented by Geotronics Surveys Ltd., indicated a northeasterly trending linear conductor. On November 1980 three diamond drill holes, aimed to test the conductive zone, were drilled under the direct supervision of Messers L. Sookochoff, P. Eng and D.W. Tully, P. Eng.

GENERAL GEOLOGY AND MINERALIZATION:

GSC Map 886A shows the general geology of the region. The claim area and its immediate vicinity lie in a belt of Triassic Nicola group about one kilometer from its contact with the Iron Mask batholith situated on the northeast. This belt of Nicola rocks, made up predominantly of greenstone and andesite flows and tuffs with minor intercalated sediments, is a large roof pendant overlying the Cretaceous Coast range batholith and its related intrusives. The above units are overlain in places by the Tertiary Kamloops volcanics and sediments.

The important mineral deposits, consisting mainly of copper minerals, in the general area are confined within the Iron Mask batholith. They are found along its contact zones and major structural breaks marked by the Cherry Creek and Sugar Loaf intrusions. The nearby Afton orebody, for example, is associated with the Cherry Creek intrusive porphyry of diorite to syenite composition and their altered equivalents. Structurally, the orebody is in a graben covered by the Tertiary Kamloops group. This structural

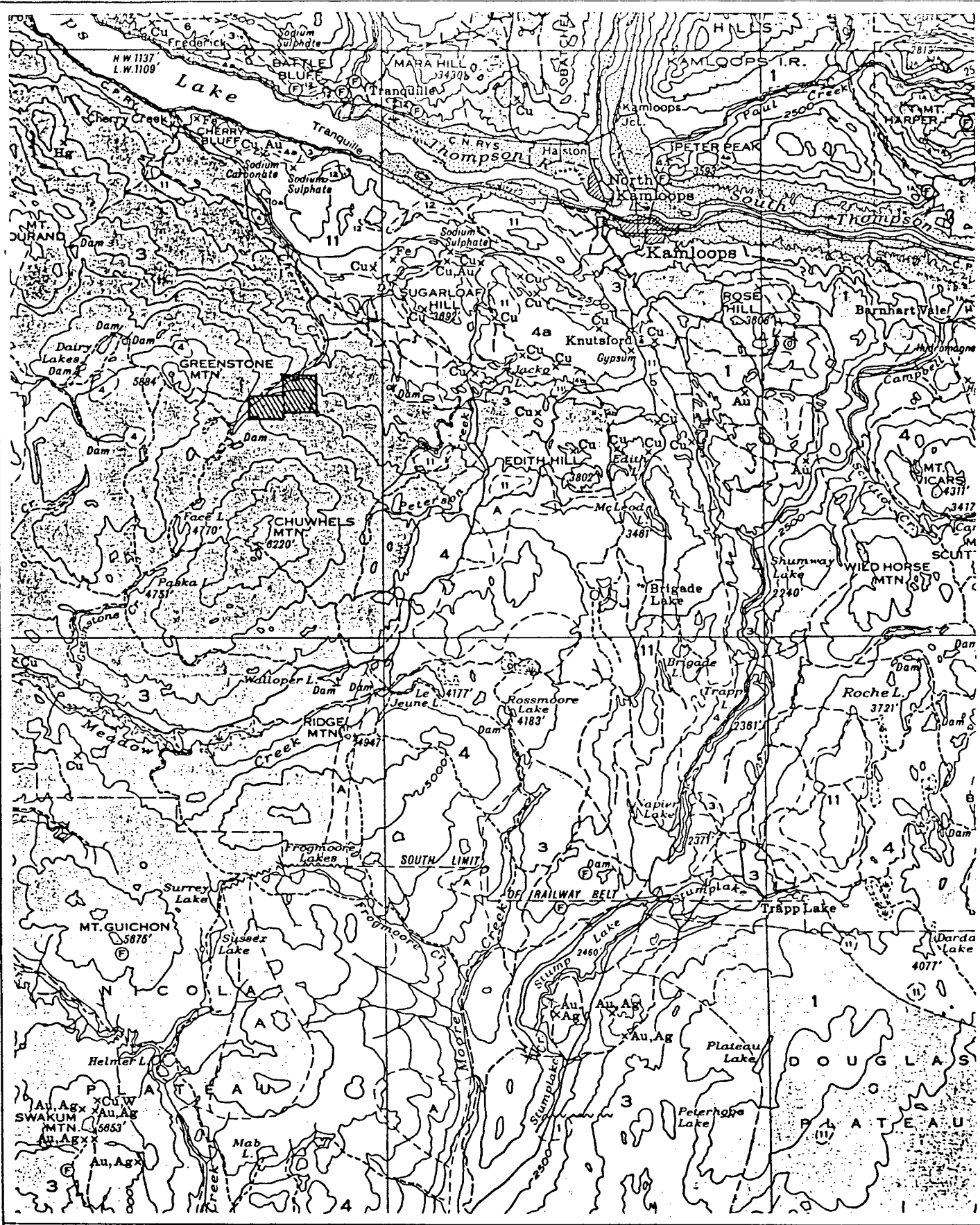


FIG. 2
 GENERAL GEOLOGY MAP
 KAM Claims, Kamloops M.D.

To accompany Report by E. D. Cruz, P. Eng.

Scale: 1:250 000

setting may have provided an environment for the development of secondary sulfide deposit of native copper and chalcocite above the primary copper sulphide ore.

Known mineral deposits in the Nicola Group occur as sulphides of Copper, Lead and Zinc with Gold and Silver in quartz veins and as replacement in limestone. These types of occurrences are located in the Stump Lake and Swakum mountain areas about 30 kilometers southeast and 37 kilometers southwest of the property respectively.

DIAMOND DRILLING: Geology and Mineralization

Three diamond drill holes, one vertical and two inclined, were drilled towards a northwesterly direction to test the conductor outlined by the electromagnetic surveys. Location of these holes and sections showing the geology are depicted in figures 3 and 4 respectively.

The geology, based on the three drill holes, consists predominantly of fragmental greenstones of Andesitic composition of the Triassic Nicola Volcanics with characteristic epidote and chlorite alteration. Fragments are volcanic rocks with subrounded to angular shapes ranging from one centimeter to three centimeters in diameter. Except in the vicinity of fault zones, the rock is generally massive with calcite stringers in places.

Intruding the above volcanics is a coarse grained, buff colored feldspar porphyry dyke of dacitic composition up to 40 meters thick. This dyke rock is barren of mineralization.

Four major fault zones up to 20 meters wide were intercepted by the drill holes. They appear to strike northeasterly with an apparent dip of 50° NW.

Native copper mineralization although sparsely distributed in the Nicola rocks is present in amounts considered unusual for this formation. It occurs in the form of flakes and disseminations confined along slip and fracture planes more often filled and coated with calcite. This mineralized fractures appear to be spatially related to the fault zones.

It is quite possible that the mineralization encountered are fringe effects of a blind intrusive mass beneath the Nicola Volcanics.

CONCLUSION AND RECOMMENDATIONS :

Electromagnetic surveys on the mineral property delineated a conductive zone which was proven by drilling to be caused by fault zones in the Nicola Volcanics.

The native copper mineralization occurring in widely spaced slip and fracture planes in the Nicola Volcanics is considered an unusual occurrence that warrants further exploration. The following work programme is therefore recommended:

Stage I

1. Geological Mapping.
2. Percussion drilling on a grid pattern to outline a potentially mineralized area by rock geochemistry of chip samples.

Stage II

Diamond drilling to be undertaken should stage one proves a drilling target.

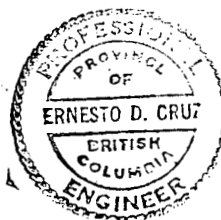
ESTIMATED COST OF RECOMMENDED PROGRAMME:

Stage I:

1.) Geological Mapping & Supervision	\$ 6,000.00
2.) Percussion Drilling 5,000' @ 12.00/ft	60,000.00
3.) Rock Geochem Analyses 1,000	3,750.00
4.) Mobilization & Demobilization	2,000.00
5.) Transportation	1,500.00
6.) Food & Lodging	3,600.00
7.) Supplies	500.00
8.) Documentation (Map Preparation & Reports)	2,000.00
9.) Contingencies	<u>8,000.00</u>
Total	\$ 87,350.00
Say	\$ 88,000.00

Stage II:

Provision for 4,000' of diamond drilling
at \$30.000/ft \$120,000.00





E.D. CRUZ, P. Eng

PEMEX CONSULTANTS LTD.

REFERENCES:

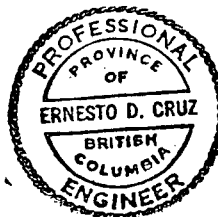
- Sookochoff, L. (1981) : Personal Communication.
- Boitard, C. (1980) : Personal Communication.
- Mark, D.G. (1980) : Geophysical - Geochemical Report on the KAM claims.
- Prendergast, J.E. (1973) : A.R. #4214 - Report on the Magnetometer, Induced Polarization and Geochemical Surveys on the Rich Group.
- Preto, V.A. (1967) : Geology of the Eastern Part of Iron Mask Batholith, GEM 1967.
- Cockfield, W.E. (1961) : Geology and Mineral deposits of Nicola Map Area, GSC Memoir 249.

CERTIFICATE

I, Ernesto D. Cruz, of 7734 Carrett Drive, Delta, B.C. do hereby certify that:

1. I am a consulting mining engineer residing at 7734 Carrett Drive, Delta, B.C., and with an office at 1006-750 West Pender Street, Vancouver, B.C., V6C 2T8.
2. I am a graduate in Mining Engineering from Mapua Institute of Technology, Philippines (BSEM), Missouri School of Mines and University of Washington (MSEM).
3. I have no personal interest, directly or indirectly in the properties or in Lakewood Mining Company Limited and Green Valley Mine Inc. securities, nor do I expect to receive directly or indirectly any interest in such property or securities.
4. The findings in this report are from data obtained from personal examination of the diamond drill cores and from a study of the available reports and maps of the area. No visit was made on the property.
5. This report maybe reproduced in full in the Company's Prospectus.

Dated at Vancouver, B.C. this 15th day of January 1981.



E. D. Cruz
E.D. CRUZ, P. Eng.

CERTIFICATE

I, Laurence Sookochoff, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

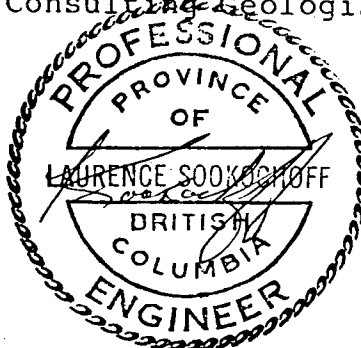
That I am a Consulting Geologist with the firm of Pan-American Consultants Ltd. of 2602-1055 West Georgia Street, Vancouver, B.C.

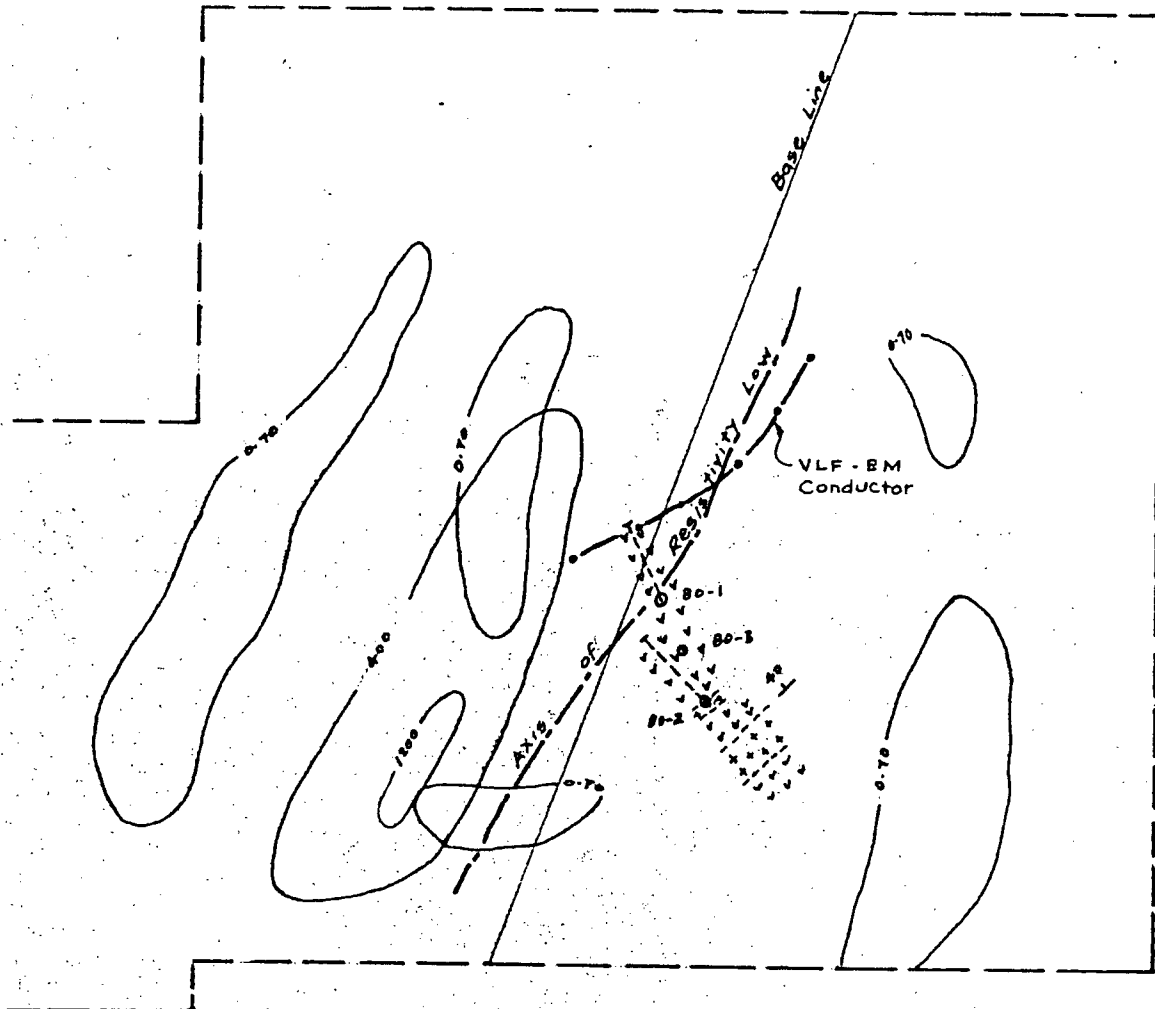
I further certify that:

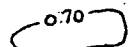
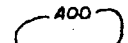

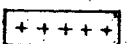
1. I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in degree in Geology.
2. I have been practising my profession for the past fourteen years.
3. I am registered with Association of Professional Engineers of British Columbia.
4. I have carried out property examinations on the Kam claim on May 21, 1980 and November 13, 1980.
5. I have reviewed the report authored by E. Cruz, P. Eng. entitled The Report on the Exploration of the Kam Mineral Property for Lakewood Mining Co. Ltd. and Green Valley Mines Ltd. dated January 15, 1981 and concur with the information therein.

Laurence Sookochoff, P.Eng.
Consulting Geologist

January 15, 1981
Vancouver, B.C.





-  Chargeability Contour
-  Resistivity Contour
-  Nicola Volcanics
-  Feldspar Porphyry Dykes

Note: Geology based on surface Projection of drill intersections

FIG. 3

COMPOSITE MAP SHOWING GEOLOGY, DIAMOND DRILL HOLES, INDUCED POLARIZATION AND VLF-EM RESULTS

Scale: 1 cm = 120 meters

November 24, 1980

Lakewood Mining Co. Ltd.
2245 West 13th Avenue
Vancouver, B.C.

Attention - Mr. Charles Boitard
President

Dear Sirs:

Re: Diamond Drill Hole #80-1
KAM Mineral Claim
Cherry Creek Area
Kamloops Mining Division
Kamloops, B.C.

The undersigned accompanied by Mr. C. Boitard laid out the position of Diamond Drill hole #80-1 on the KAM mineral claim on October 3, 1980 to test a MAX MIN electromagnetic anomaly. The direction was marked at 330° and the dip was indicated at minus 60° . The collar elevation is $\pm 4,000$ feet and the core size is NQ (47 mm).

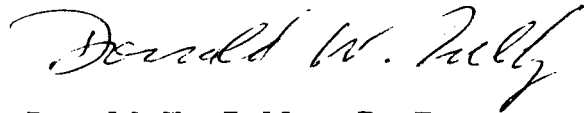
On October 21, 1980 diamond drill hole #80-1 was logged in company with Mr. Boitard at the drill site to 533 feet (168.6 m) as follows:

<u>Footage</u>	<u>Metres</u>	<u>Description</u>
0 - 20'	0 - 6.10	Casing
121'	- 36.89	Andesite (augite porphyry phase with zones of flow breccia, fragments up to 4 cm across, abundant epidote alteration, fracture patterns @ 45° c/a with flecks of native copper @ 16.7, 21.0, 24.7, 32.0 m
127'	- 38.7	Andesite, massive med. gr., rust-filled fractures + 50% epidote and flecks native copper @ 38.1, 38.4 m
134'	- 40.85	Andesite flow breccia + 30% epidote
165'	- 50.3	Andesite (augite porphyry phase) with - 20% epidote

<u>Footage</u>	<u>Metres</u>	<u>Description</u>
0 - 169'	0 - 51.5	Andesite flow breccia, epidotized, fine MoS ₂ at 51 m in fracture zone
- 173'	- 52.7	Massive epidotized andesite (aug. por.)
- 204'	- 62.2	Andesite flow breccia with fracture zone @ 56 m native copper flecks scattered through this section and MoS ₂ @ 62 m
- 254'	- 77.4	Andesite (augite por. phase) med. gr. with + 20% epidote, fractured @ 67 m with chlorite seams, flecks native copper @ 67.07, 72.56, 75.3, 75.6 m
- 257'	- 78.05	Sheared chloritized zone @ 30° c/a
- 274'	- 83.5	Andesite flow breccia
- 303'	- 92.3	Sheared chloritized andesite @ 40° c/a with limonitic pseudomorphs of pyrite @ 88.7 m
- 322'	- 98.17	Andesite, chloritized, sheared @ 45° c/a, native copper @ 94.5 m
- 383'	-116.77	Shear zone in andesite, chloritized, epidotized, fracture pattern @ 25 - 45° c/a and flecks native copper @ 103.5, 107.0, 111.28, 115.2 m
- 426'	-129.88	Andesite flow breccia with fragments up to 3 cm across, epidote alteration, hematite replacement, flecks native copper @ 118.6 m
- 427'	-130.18	Fault zone, rust-filled fractures @ 45° c/a
- 432'	-131.7	Medium grained andesite (aug. por.) with epidote and chlorite alteration
- 453'	-138.11	Andesite flow breccia, epidotized, limonite replacement of fragments
- 454'	-138.4	Mylonite (fault breccia mud)

<u>Footage</u>	<u>Metres</u>	<u>Description</u>
- 517'	- 157.6	Shear zone in andesite, chloritized, blocky, fracture pattern @ 20 - 30° c/a with flecks native copper @ 143.9, 151.8, 153.96, 156.7, 157.6 m
- 524'	- 159.76	Highly chloritized andesite, epidote alteration with fine flecks native copper disseminated through section
- 553'	- 168.6	Andesite (augite porphyry phase) med. gr., massive, occasional grains fine pyrite, sparse flecks native copper, fine hematite replacement

Respectfully submitted,



Donald W. Tully, P. Eng.

DDH No. 80 - 1

Dip at collar

Core Size: NQ

Direction:

Logged by: E.D. CRUZ
P. Eng.

From (Feet)	To (Feet)	Description
553	563	Andesite: Green, epidote alteration in parts, fragmental in some sections. Sparse flakes of native copper in some fractures and slip planes.
563	568	Andesite
568	576	Andesite, native cu.
576	586	Andesite, native cu @ 584
586	590	Andesite
590	598	Andesite, Fault zone.
598	602	Andesite, fault zone.
602	610	Andesite, sparse native cu.
610	616	Andesite
616	626	Andesite
626	635	Andesite
635	645	Andesite
645	655	Andesite
655	665	Andesite, sparse native cu.
665	675	Andesite, relatively fragmental with sparse native copper along fractures
675	683	- do -
683	693	- do -
693	700	- do -
700	705	- do -

From (Feet)	To (Feet)	Description
705	746	- do -
746	752	Andesite, fragmental, sparse native cu. Fault at 750' - 752.
752	756	Andesite, fragmental, native cu @ 754 - 756.
756	766	Andesite, shear zone at 758 -760, sparse native cu.
766	776	Andesite, sparse native cu.
776	796	Altered (kaolinized and sheared) Andesite with calcite veins @ 776 - 796. Native cu @ 788 - 790.
796	803	Andesite, fragmental, sparse native cu.
803	885	- do -
885	934	Andesite, relatively less fragments, trace native cu.

END.

DDH No. 80 - 2

Dip at collar: -65°

Direction: N 45° W

Logged by: E.D. CRUZ,
P. Eng.

From (Feet)	To (Feet)	Description
0	20	Overburden
20	24	Feldspar porphyry: Buff colored, medium grained, with subrounded feldspar phenocryst, minor quartz.
24	29	- do -
29	33	- do -
33	42	- do -
42	48	- do -
48	58	- do -
58	67	- do -
67	77	Andesite: Green, medium grained, fragmental. Native copper as thin flakes along some fracture surfaces spaced at 3 to 6 fractures/ft.
77	87	
87	93	Andesite as above. Fault zone @ 85' - 93' Native cu @ 85 - 93.
93	99	Andesite. Native cu @ 93 - 99.
99	107	Andesite, rare native cu.
107	117	Same as above.
117	127	- do -
127	133	- do - Fault zone from 130' to 133' native cu in some fractures.
133	142	- do -
142	152	- do -
152	160	- do -

From (Feet)	To (Feet)	Description
160	165	- do -
165	173	- do -
173	179	- do -
179	181	- do -
181	185	- do -
185	189	- do - end of fault zone.
189	197	Andesite: Calcite stringers, native cu as fine flakes and disseminations along fracture planes and in some calcite filled fractures.
197	202	Andesite, increasingly fragmental from 202', some native cu in black rhyolitic fragments and in fractures as above.
202	210	Fragmental Andesite, epidate alteration.
210	213	- do -
213	223	- do -
223	233	- do -
233	237	- do - Fault at 233' - 237'.
237	247	- do -
247	257	- do - Native cu along fract
257	267	- do - - do -
267	277	- do - - do -
277	286	Andesite, Fault Zone, sparse native cu.
286	294	Andesite up to 292', fault zone, sparse native copper. Feldspar porphyry dyke from 292' - 294', fault zone, barren.
294	297	Feldspar prophyry, chlorite - sericite alteration along fracture, barren. Fault zone.
297	303	- do -
303	309	- do - end of fault zone.

From (Feet)	To (Feet)	Description
309	317	Feldspar porphyry.
317	323	- do -
323	328	- do -
328	334	- do -
334	342	- do -
342	345	- do -
345	357	- do -
357	359	- do -
359	368	- do -
368	375	- do -
375	381	- do -
381	388	- do -
388	397	- do -
397	405	- do -
405	414	- do -
414	421	- do -
421	425	- do -
425	433	- do -
433	439	- do -
439	443	- do -
443	451	- do -
451	459	- do -
459	467	- do -
467	474	- do -
474	483	- do -

From (Feet)	To (Feet)	Description
483	493	- do -
493	502	- do -
502	507	- do -
507	516	- do -
516	519	- do -
519	527	- do -
527	534	- do -
534	544	- do -
544	554	- do -
554	559	- do -
559	567	- do -
567	577	- do -
577	583	- do -
583	593	- do - contact @ 587'.
593	603	Andesite, sparse native cu.
603	613	- do -
613	623	- do -
623	635	- do - pyrite and Native cu @ 625 - 631, Fault at 626 - 628.
635	646	- do - sparse native cu.
646	656	- do - sparse native cu along fractures.
656	667	- do - intense epidote alteration.
667	667	- do - sparse native cu.
677	687	- do -
687	697	- do -
697	707	- do -

From (Feet)	To (Feet)	Description
707	717	- do -
717	727	Andesite
727	737	- do -
737	747	- do -
747	757	- do -
757	767	- do -
767	777	- do -
777	787	- do - Native cu at 782' and 783'.
787	797	- do - Native cu at 794.
797	801	- do -
801	811	- do -
811	821	- do - sparse native cu at 819 - 830.
821	831	- do -
831	837	- do - sparse native cu at 837'.
837	847	- do -
847	857	- do -
857	867	- do - sparse native cu at 866'.
867	877	- do -
877	887	- do -
887	897	- do - sparse native cu from 892' - 916'.
897	907	- do - Fault gauge at 902' - 904'.
907	917	- do -
917	927	- do -

From
(Feet)

To
(Feet)

Description

927	937	- do -
937	947	- do - sparse native cu from 938' to 947'.
947	954	- do - sparse native cu
954	961	- do - sparse native cu, fault at 954' 956'.
961	971	- do - sparse native cu at 966' to 1,000.
971	981	- do -
981	991	- do -
991	1001	- do -
1001	1008	- do - Fractured zone at 1004 - 1020, sparse native copper.
1008	1017	- do - sparse native cu.
1017	1027	- do - sparse native cu.
1027	1037	Andesite up to 1036'. Barren Feldspar porphyry.
1037	1044	Feldspar porphyry.

END.

DDH No. 80 - 3

Core Size: NQ

Dip at collar: -90°

Direction:

Logged by : E.D. CRUZ,
P. Eng.

From (Feet)	To (Feet)	DESCRIPTIONS
0	24	Overburden.
24	27	Andesite: Green, epidotized in parts, fragmental.
27	34	- do -
34	44	- do -
44	47	- do -
47	53	- do -
53	58	- do - sheared from 50' to 58'.
58	65	- do -
65	75	- do -
75	85	- do - sparse native cu flakes along some fractures.
85	95	- do - - do -
95	105	- do - - do -
105	115	- do - - do -
115	125	- do - - do -
125	135	- do - - do -
135	146	- do - - do -
146	156	- do - - do -
156	164	- do - - do -
164	169	- do - - do -
169	177	- do - - do -
177	187	- do - - do -

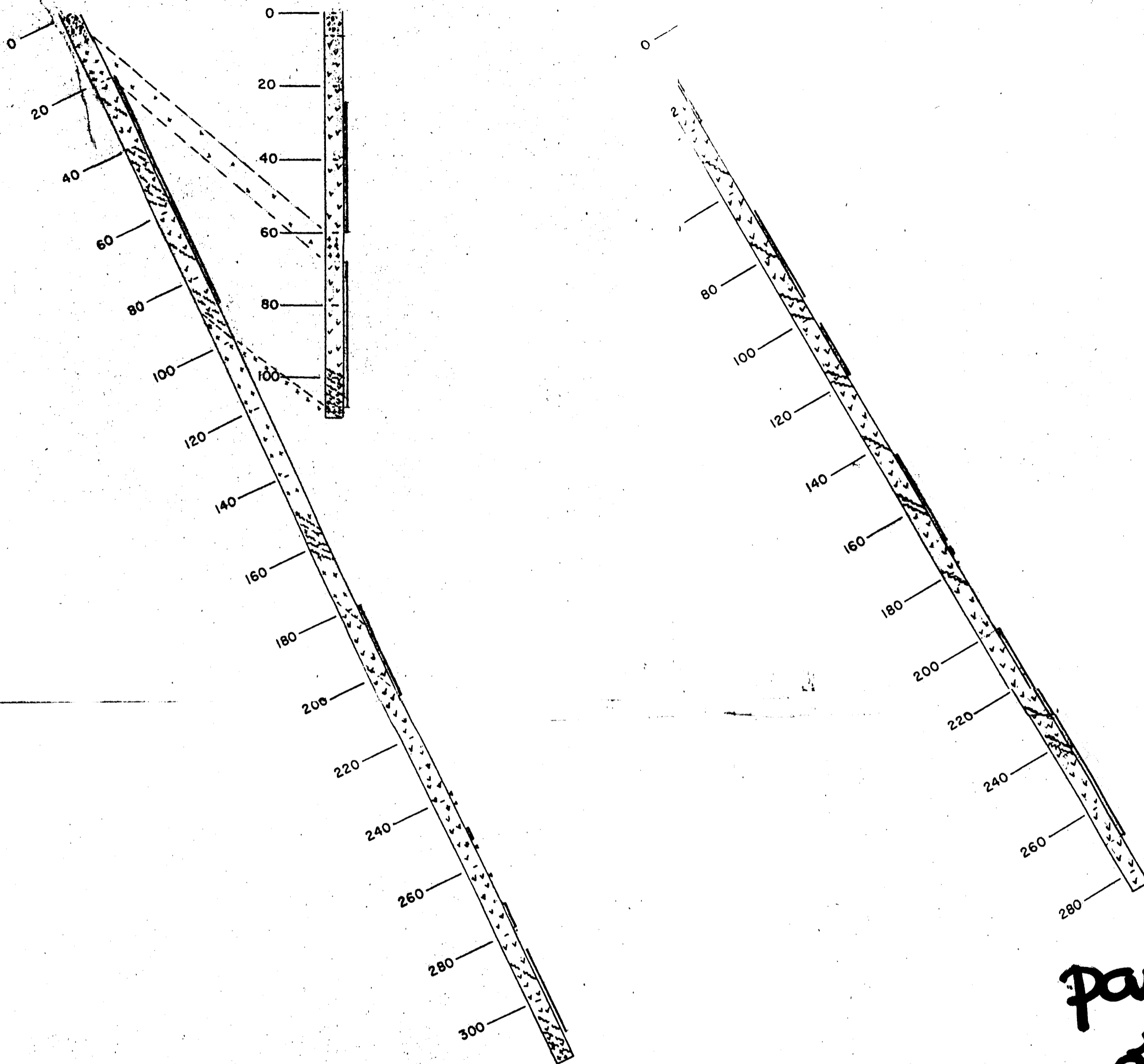
From (Feet)	To (Feet)	Description
187	197	- do - - do -
197	207	Feldspar Porphyry, Barren.
307	215	- do -
215	225	- do -
225	234	Andesite: Sparse native cu along some fractures & slip planes up to 355'.
234	244	- do -
244	254	- do -
254	265	- do -
265	275	- do -
275	285	- do -
285	295	- do -
295	305	- do -
305	315	- do -
315	323	- do - shear zone @ 320-323.
323	332	- do -
332	355	- do - shear zone @ 333 - 336, 339' - 364'.
355	364	Feldspar porphyry.

END.





HOLE No. 80-2

HOLE No. 80-3

HOLE



LEGEND

-  Nicola Volcanics: fragmental andesite
-  Feldspar Porphyry
-  Fault
-  Sections with Native Copper

part 2
of 3

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
9271
NO.

FIG. 4
LAKEWOOD MINING Co. Ltd.
KAM Mineral Claims
Kamloops M.D.
DIAMOND DRILL HOLE SECTION
Scale: 1 cm = 10 meters