

TABLE OF CONTENTS

LOCATION MAP . . . . . Page  
faceplate

GEOLOGICAL REPORT

Introduction . . . . . 1  
Summary . . . . . 1  
Conclusions . . . . . 2  
Recommendations . . . . . 3  
Property and History . . . . . 4  
Location and Access . . . . . 5  
Program and Employees . . . . . 5  
General Geology . . . . . 6  
Local Geology . . . . . 6  
    Rock types . . . . . 7  
    Structures . . . . . 9  
    Mineralization . . . . . 9

GEOPHYSICAL REPORT

MAGNETOMETER SURVEY

Introduction . . . . . 11  
Instrument and  
    Field Procedures . . . . . 11  
Factors Influencing the  
    Earth's Magnetic Field . . . . . 12  
Results and Interpretations . . . . . 12  
  
Induced Polarization Survey . . . . . 13  
    Bulldozing . . . . . 14  
    Diamond Drilling . . . . . 15  
  
Itemized Statement of Expenditures Incurred . . . . . 16

ATTACHMENTS

Appendix I      Diamond Drill Logs  
1 Map 1          Claims Sketch      1" -- 1500'  
✓ Map 2          Geology            1" -- 200'  
- Map 3          Magnetometer Survey      1" -- 200'

Induced Polarization Survey Report  
-- by -- W. Schurr,  
Sept. 21, 1966

Vancouver, B. C.,  
February 28, 1967.

ADERA MINING LIMITED

STRIKE - LORNA GROUP

GEOLOGICAL AND GEOPHYSICAL REPORT

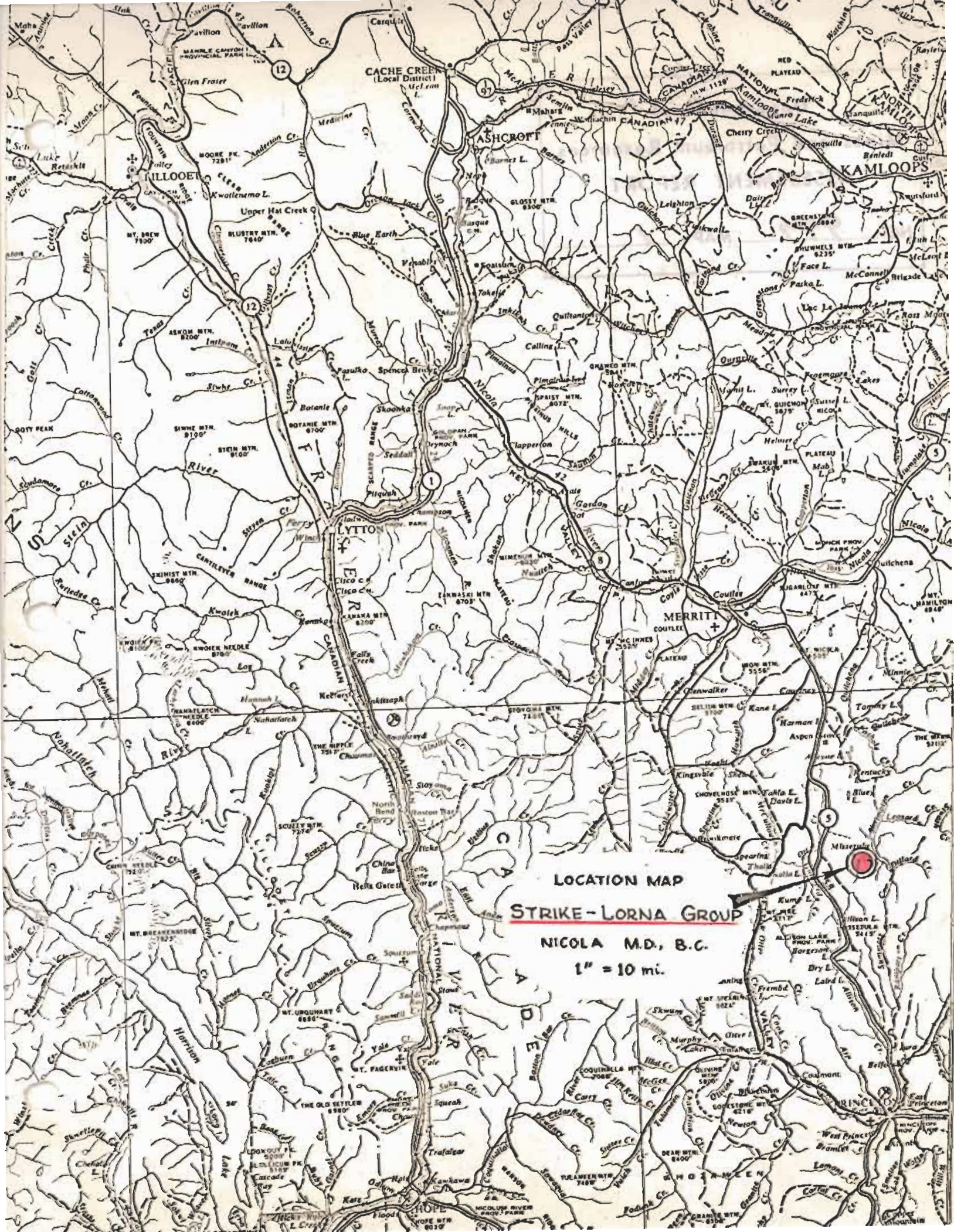
G E O L O G I C A L   R E P O R T

INTRODUCTION

On May 25, 1966, Adera Mining Limited signed an option arrangement with Plateau Metals Ltd. whereby Adera could earn 50% interest in the 20 claims of the Strike-Lorna Group by spending \$25,000 on exploration and development work on the property prior to the last day of 1967. Exploration work was carried out on the copper prospect during the interval July 18- Dec. 6, 1966, and consisted of recharging old lines, geologic mapping, magnetometer surveying, contract induced polarization surveys by Canadian Aero Mineral Surveys Ltd., bulldozing and diamond drilling. This two part report deals principally with the geologic and magnetometer surveys, but covers all the work in general. Interpretations, conclusions and recommendations are included. A separate report on the I. P. survey by W. Schuur, dated Sept. 21, 1966, is submitted as part of this report.

SUMMARY

The Strike-Lorna claims, 30 miles north of Princeton, cover a low grade copper prospect lying within the faulted west limb of a regional syncline in the Upper Triassic Nicola Group. Granodiorites of the Coast Intrusions occur several miles to the east and to the west of the property. The initial exploration work on the ground was done by Plateau Metals in 1962.



CACHE CREEK (Local District)

ASHCROFT

LYTTON

MERRITT

LOCATION MAP

STRIKE-LORNA GROUP

NICOLA M.D., B.C.

1" = 10 mi.



Geological work by Adera in 1966 confirmed the presence of numerous low grade showings, magnetics showed a strong NW trend with several anomalous highs, and induced polarization showed two large anomalies -- the Strike Anomaly and the Duke Anomaly. These encouraging results justified trenching to expose surface geology over the anomalies and drilling to sample them at depth. The results of this work indicate the cause of the Duke Anomaly to be slightly pyritic and slightly graphitic argillite, and the cause of the Strike Anomaly to be sulphides - largely pyrite but including chalcopyrite, and possibly some clay minerals. The results of all the work to date suggests the presence in and near the Strike Anomaly of a large tonnage of material grading in the order of 0.1% - 0.2% Cu.

#### CONCLUSIONS

- (1) Geologic mapping on the Strike-Lorna claims showed the geologic control of numerous low grade, disseminated chalcopyrite occurrences to be the central portion of a NW trending faulted belt of granitized breccia. The granitized character of the rock and the presence of magnetite and irregular seams and replacements of pink orthoclase can be considered favourable indications.
- (2) The strong magnetic trend outlined by the magnetometer survey provides useful data for outlining rock units and structures. However, no clear association of magnetic minerals and chalcopyrite was discovered.
- (3) Trenching and drilling of the Duke Anomaly indicates its cause to be slightly pyritic and graphitic argillite. Similar work on the more extensive Strike Anomaly indicates its cause to be sulphides and possibly clay minerals, the grade of the copper content of the sulphides ranging in the order of 0.1% - 0.2% Cu. Although this grade is disappointingly low and takes much of the promise from the prospect, the long intervals between holes and their relatively shallow depth does not permit ruling out the prospect entirely for the possibility remains that better grade sections might exist between holes or at greater depth. The cause of two weaker

I. P. anomalies NE of the Strike anomaly have not yet been adequately investigated. (4) Because of the possible existence of a large tonnage of low grade copper mineralization, and because of the severely fractured nature of the ground, the property merits consideration as a possible future leaching operation. Experimental work being carried out by other agencies might result in some scientific breakthrough which could possibly make the Strike-Lorna a producer.

RECOMMENDATIONS

As the work to date has removed much of the promise of the property being a near future open pit operation, no further extensive exploration work can be recommended at this time. However, some consideration should be given regarding the possibility of the property yielding returns some time in the future as a leaching operation. Also, as there remain two smaller, unexplained I. P. anomalies, and as available assays indicate appreciably better assays than visually expected, a minimal amount of additional work should be carried out. It is therefore recommended that some geochemical work be undertaken in an effort to appraise the two smaller I. P. anomalies, and that the remainder of the Adera drill cores, excluding those from hole A5, be split and assayed for copper. Expenditures required for this work would be in the order of \$2,500. With any further encouragement, additional work would be required.

As sufficient work has been done to maintain the property for 6 years, Adera's interest in the property should be maintained for that time at least, and then reviewed in the light of exploration or scientific advances.

Respectfully submitted,

*Chas. A. R. Lammle*  
CHAS. A. R. LAMMLE.

February 28, 1967

PROPERTY AND HISTORY

As optioned, the property consisted of the 20 wholly owned, contiguous Strike-Lorna claims. With encouraging initial results Adera acquired the 4 Spike claims and staked additional protective ground -- The Run, Nur and Sun claims. Pertinent details regarding these claims are tabulated below.

Claim		Record No.		Assessment Anniversary
Strike 1 - 6	-	15210 - 15	-	Sept. 21, 1967
Strike Fraction	-	17517	-	May 26, 1968
Strike (Fr.) 6, 7	-	18263, -64	-	July 4, 1968
Strike (Fr.) 18 - 20	-	18272 - 74	-	July 4, 1968
Strike 16, 18 - 20	-	15225, 15227 - 29	-	Sept. 21, 1967
Lorna 2, 4, 6	-	15544 - 46 - 48	-	Nov. 30, 1967
Lorna (Fr.) 22	-	18278	-	July 4, 1968
Spike 1 - 4	-	25029 - 32	-	Aug. 23, 1967
Run (Fr.) 1	-	18538	-	Aug. 3, 1967
Run 2	-	32025	-	Aug. 8, 1967
Run 6 - 16	-	18539 - 49	-	Aug. 3, 1967
Nur (Fr.) 1	-	31776	-	Aug. 3, 1967
Nur 1 - 3	-	31777 - 79	-	Aug. 3, 1967
Sun 1 - 12	-	31762 - 73	-	Aug. 3, 1967
Sun (Fr.) 1, 2	-	31774, -75	-	Aug. 3, 1967

Map 1, attached, is a sketch plan of these claims and Map 2 shows the portion of the property explored.

Historically, the property is young. The initial claims were staked in 1962 by Plateau Metals to cover disseminated copper mineralization near the site of a former logging operation. Plateau then carried out a preliminary exploration program involving line cutting, detailed prospecting, magnetometer surveying, bulldozing and diamond drilling, all of which revealed several areas of low grade mineralization. Little further work was undertaken during the next 4 years. Considering the thoroughgoing prospecting of the old timers in the Princeton - Merritt country, the near absence of old hand workings in the area is surprising.

#### LOCATION AND ACCESS

The property is located at elevation 4200' about 1-1/2 miles west of the mid point of Missezula Lake. Princeton lies 22 air miles to the south and Merritt lies 26 air miles to the NNW. B.C. highway #5 runs northerly 3 miles west of the claims and access is 30 miles north from Princeton on this highway to a turnoff, thence easterly and southerly for 7 miles via truck road to the showings.

The property is forested with jack pine thickets and occasional good stands of pine and fir. Precipitation is light. Water is available at a couple of small lakes.

#### PROGRAM AND EMPLOYEES

To facilitate the geologic, magnetic and I. P. surveys a portion - (about 10 line miles excluding the base line) - of Plateau's old survey lines were rechained and repicketed. These lines run east-west and are separated by intervals of 500'. They were used as control for the geologic mapping, claims survey, and the geophysical work. All outcrop near these lines were studied during the geologic work, the magnetometer was read at all 100' stations along them and some 12-1/2 miles of I. P. traverses, including detailing, was completed along them. Following the geophysical work about 2520 lineal feet of trench and 4000 feet of road were constructed by TD25 bulldozer. In addition several areas were stripped or cleared. Diamond drilling contracted to Boyles Bros. involved 1475' in 6 holes, AXWL core. In addition to this drilling, Plateau Metals elected to drill a seventh hole (206') at their own expense, the results of which are described herein. Three holes drilled by Plateau in 1962 are also described.

Employees were J. W. Kaster, W. Drazdoff, G. Webster and W. Armstrong, all of Princeton, B. C., and all under the direct supervision of the writer. The time distribution of the Adera field work in days is as follows:

	Lammle	Kastor	Drazdoff	Webster	Armstrong
Lines	3	2	2	1	-
Geology, etc.	10	-	-	2	-
Mag.	1	-	-	5	-
I. P.	1	-	-	13	-
Bulldozing	2	-	-	-	4
Diamond Drilling	28	-	-	3	-

#### GENERAL GEOLOGY

The regional geology of the Princeton area, including the Missezula Lake area is described in G.S.C. Memoir 243.

Map 888A of this memoir shows Missezula Lake and vicinity to be underlain entirely by a north trending, 6 - 8 mile wide belt of Upper Triassic Nicola Group. To the east, this belt is bounded by the intrusive granodiorite of the Osprey Lake batholith, and to the west by the granodiorites of the Allison Lake and Pike Mountain stocks. Small outliers of Tertiary basalt cover the Nicola volcanics in places. Major structural trends in the Nicola belt are northerly: the axis of a major syncline strikes northerly near the east side of Missezula Lake, hence the Strike-Lorna Group lies on the west limb of this syncline; the major Summers Creek and Allison Creek faults project northerly into the belt from the vicinity of the Copper Mountain Stock, the Strike-Lorna property lying about midway between the two. Because these faults seem to originate near Copper Mountain, they could have some economic significance but this has not yet been conclusively proven.

#### LOCAL GEOLOGY (See Map 2)

Exposed rock types on the property are green andesites, gray to green volcanic breccias and fine, gray to black sediments all of which trend NW, somewhat askew to the regional trend, and appear to dip at moderate NE angles, more or less in accord with the regional synclinal interpretation. Due north photo linears are prominent and it is not likely that these are due solely to the effects of glaciation; they are probably due, at least in part, to northerly structures. Strong NNW to NNE faults cut the rocks on the property. Weak, intermittent, disseminated chalcopyrite occurs in the volcanic breccia along most of its exposed length, a distance of about 5000', and



February 28, 1967

ADERA MINING LIMITED

STRIKE - LORNA GROUP

GEOPHYSICAL REPORT

M A G N E T O M E T E R    S U R V E Y

INTRODUCTION

As part of Adera's exploration program on the Strike-Lorna Group, a magnetometer survey was carried out to assist in tracing bedrock structures and to extend areas of mineralization where there was a known association of magnetic minerals. It was hoped that the data obtained would permit useful correlations with geological and induced polarization results.

INSTRUMENT AND FIELD PROCEDURES

The instrument used was a McPhar M500 direct reading fluxgate magnetometer, an instrument designed to measure the vertical component of the earth's magnetic field. The instrument can measure a range of magnetic intensity of 300,000 gammas, either positive or negative, by using six selector ranges. Its sensitivity varies with the selector range used, the sensitivity being 20 and 50 gammas per scale division on the selector ranges used in this survey.

The field procedure consists of hand levelling the instrument and maintaining a consistent instrument-operator-magnetic field orientation during readings to minimize extraneous magnetic influences. Readings were taken at 100' stations on lines 500' apart in this fashion, the survey covering a total of about 10 line miles.

Diurnal corrections were facilitated by reading the instrument

several times daily at a base station and then correcting all readings so as to be relative to the base station reading. The instrument operator was G. A. Webster, Princeton, B.C., who spent 5 days performing the field work under the writer's direct supervision. Drafting and interpretations are by the writer.

#### FACTORS INFLUENCING THE EARTH'S MAGNETIC FIELD

1. Variations in the amount of magnetic minerals in bedrock.
2. Variations in the amount of detrital magnetic minerals in overburden.
3. Concentrations of magnetic minerals.
4. Depth to the center of influence of an anomalous magnetic material.
5. Alteration and/or destruction of magnetic minerals.
6. Combinations of the above.

#### RESULTS AND INTERPRETATIONS

Results of the survey are plotted on Map 3 which shows a marked NW trend in magnetic intensities. This trend is composed of a broad belt of irregular magnetic highs divided, in part, down the middle by a relatively narrow low, and flanked to the NE and SW by broad areas of uniform, low magnetic intensity. The belt of magnetic highs is generally coincident with the NW trending granitized breccia rock unit, and there can be little doubt that the magnetics are due to the known magnetite content of these rocks. The several areas of higher intensity are likely due to local concentrations of magnetite in the rock; the high relief of the SE half of the belt is due to the shallow overburden in this area, the low relief to the NW reflects much deeper overburden. The elongate central low lies over a relatively narrow strip of covered ground, immediately west of a small escarpment. This strip of ground, being devoid of outcrop, probably reflects a weak erosional resistance, likely a fault zone as interpreted. Destruction of magnetic minerals along such a fault would readily account for the elongate low. The uniform low magnetic intensity over the two flanking areas reflect the sedimentary and andesitic rocks of these areas.

Known mineralization seems to have little relation to the magnetics.

The principal showings occur in areas of relatively low readings but some of the smaller showings occur on the fringes of the highs. Hence no clear association of chalcopyrite and magnetite is apparent.

#### INDUCED POLARIZATION SURVEY

A report on the Strike-Lorna I.P. survey by W. Schuur, Canadian Aero Mineral Surveys Ltd. is attached and submitted as part of this report. Two large anomalies were outlined by this work, the Duke Anomaly, 1600' NW by 900' with highest reading of 18 millisecond chargeability, and the Strike Anomaly, 4000' NW by 900' with highest reading of 14.7 milliseconds. These are outlined for convenience on Map 2 which shows the Duke Anomaly lying over the argillite-grey-wacke rock unit and the Strike Anomaly lying over the central portion of the SW half of the breccia unit. Two weaker anomalies lie to the NE over the andesitic tuff, one of these is open to the north and east.

Judging from Trenching and drilling results, the cause of the Duke Anomaly appears to be the graphitic content of the argillite and partly the platy pyrite that coats some tight joints in the rock. The sulphide content alone is insufficient to account for the anomaly. Bulldozing and drilling on the Strike Anomaly indicates its cause to be principally sulphides, mostly pyrite with a little chalcopyrite. Some clay minerals like montmorillonite and kaolinite are known to cause I. P. responses and it is possible that some of these minerals associated with faults could cause part of the response. Observed sulphides on surface and in cores are locally rich enough but not sufficiently pervasive to be the sole cause of the anomaly. Weak disseminated cube pyrite occurs in the andesitic tuff near the smallest I. P. anomaly, but there is no explanation presently available for the extreme NE anomaly.

An interesting aspect of the geophysical work is the relationship of the Strike Anomaly and the magnetics. The main portion of the I.P. anomaly lies along the central elongate magnetic low through which the NW fault has been

interpreted. Only small portions of the fringes of the I. P. lie over magnetic highs. The two largest areas of high magnetic susceptibility lie on either side of the Strike Anomaly, a long, narrow high along the SW edge and an irregular ovate high adjacent to the east central edge. Both of these magnetic highs might have originally been due to a single concentration of magnetic minerals now separated by the interpreted fault.

### B U L L D O Z I N G

Following the results from the I. P. survey a program of TD25 bulldozer trenching was carried out to expose bedrock over the anomalies, to strip areas of known mineralization and to prepare roads for further work. About 4000' of jeep road was constructed and 7 areas each about 100' in diameter were stripped or cleared. Fourteen trenches were excavated the details of which are tabulated below:

<u>Trench</u>	<u>Length (ft)</u>	<u>Depth (ft)</u>	<u>Width (ft)</u>
1	400	4	15
2	120	6	15
3	100	3	15
4	330	3	15
5	100	4	15
6	120	12	15
7	150	10	15
8	100	10	15
9	150	7	15
10	160	7	15
11	310	2	15
12	150	4	15
13	230	4	15
14	100	5	15
	<u>2520</u>		

In all, 2520 lineal feet of trench averaging 5' in depth were excavated.

STATEMENT OF EXPENDITURES INCURRED  
(Applicable for Assessment Credit)

				<u>Sub Totals</u>
<u>Linechaining, etc.</u>	Lammle	3 days @ \$38	\$ 114.00	
	Webster	1 day @ \$20	20.00	
	Kastor	2 days @ \$25	50.00	
	Drazdoff	2 days @ \$25	<u>50.00</u>	\$ 234.00
<u>Geology, claims, etc.</u>	Lammle	10 days @ \$38	380.00	
	Webster	2 days @ \$20	40.00	
	Report	10 days @ \$38	380.00	
	Maps		8.34	
	Typing		<u>25.00</u>	833.34
<u>Mag. Survey</u>	Lammle	1 day @ \$38	38.00	
	Webster	5 days @ \$20	100.00	
	Inst. rental	15 days @ \$ 9	135.00	
	Report	6 days @ \$38	228.00	
	Maps		11.87	
	Typing included above			<u>512.87</u>
<u>I.P. Survey</u>	Lammle	1 day @ \$38	38.00	
	Webster	13 days @ \$20	260.00	
	Canadian Aero Mineral Surveys		<u>4,087.88</u>	4,385.88
<u>Bulldozing</u>	H. Sanders	40 hr. @ \$27	1,080.00	
	Armstrong	4 days @ \$25	100.00	
	Lammle	2 days @ \$38	<u>76.00</u>	1,256.00
<u>Diamond Drilling</u>	Lammle	28 days @ \$38	1,064.00	
	Webster	3 days @ \$20	60.00	
	Boyles Bros.	(contract)	<u>16,088.80</u>	17,212.80
				<hr/>
Total applicable expenditures incurred				\$ 24,434.89
Assessment credit applied for				\$ 24,400.00

Declared before me at the *city of Vancouver*  
*city* of *Vanc.*, in the  
 Province of British Columbia

this *19* of *April*, 1967 A.D.

*S. M. Somhu.*

*Chas. A. R. Lammle*

CHAS. A. R. LAMMLE, P. Eng.

Sub-mining Recorder

D I A M O N D    D R I L L I N G

Diamond drilling on the property to date consists of 10 holes totalling 2156'. Three holes (P1, Pla, P2) totalling 475' were drilled by Plateau in 1962, one hole (P3) totalling 206' was drilled by Plateau in 1966. Six holes (A1-A6) totalling 1475' were drilled by Adera to investigate I. P. anomalies and mineralized showings in 1966.

The Adera drilling was AXWL contracted to Boyles Brothers Diamond Drilling of Vancouver.

The location of these holes is shown on Map 2 and the cores are described in the attached logs. All the holes were in the granitized breccia rock unit except A5 which was in argillite and greywacke, all showed pyritic mineralization, and most showed small amounts of copper minerals.

Pertinent details are tabulated below:

<u>Hole No.</u>	<u>Length (ft)</u>	<u>Brg.</u>	<u>Dip</u>	<u>Grid Coordination</u>	<u>Approx.elev<sup>1</sup></u>
P1	196	N45°W	-45°	3/20S, 0/90W	4110
Pla	81	N45°W	-60°	3/20S, 0/90W	4110
P2	198	S45°E	-45°	1/80S, 2/30W	4090
P3	206	S77°W	-45°	1/00N, 4/10E	4335
A1	256	-	Vert	24/90S, 17/70E	4440
A2	169	S65°W	-60°	24/00S, 11/60E	4410
A3	291	S64°W	-60°	20/70S, 18/90E	4510
A4	310	S81°W	-60°	9/90S, 8/80E	4360
A5	275	S46°W	-60°	29/50S, 3/50W	4190
A6	174	S90°W	-60°	14/90S, 1/80E	4330

1 - Elevations taken by pocket sized altimeter using assumed elevation of 4000' for Duke Lake as datum.









# DIAMOND DRILL RECORD

PROPERTY STRIKE-LORNA

HOLE No. P3 (Plateau 1966)

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. P3 Sheet No. 1  
 Section \_\_\_\_\_  
 Date Begun \_\_\_\_\_  
 Date Finished \_\_\_\_\_

Lat. 1+00N  
 Dep. 4+10 E  
 Bearing S77°W, -45°  
 Elev. Collar = 4335

Total Depth 206  
 Logged By RL  
 Claim STRIKE FRACTION  
 Core Size AXWL  
 Recovery 87%

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	CORE % Cu		
0 - 10	overburden	10-20	10'	0.18		
10 - 35	(A) med grained, gray-green to pinkish granitized breccia, syenitic fragments up to 1" comprise 35% of rock, weakly oxidized, fractures healed by calcite, non magnetic, minor visible sulphides.	20-30	10'	0.13		
35 - 51	badly broken & oxidized breccia, malachite between 34 & 36, gouge between 39-42	30-40	10'	0.46		
51 - 112	(B) med grained gray granitized breccia, 30% gray andesite fragments, weakly magnetic, hairline fractures healed with calcite, oxidation ending at 55'	40-50	10'	0.12		
	Fault zone 86-112, recovery 36% between 93-112	50-60	10'	0.12		
		60-70	10'	0.07		
		70-80	10'	0.07		
		80-90	10'	0.72		
		90-100	10'	0.18		
		100-110	10'	0.18		
		110-120	10'	0.31		
		120-130	10'	0.22		
		130-140	10'	0.16		
		140-150	10'	0.07		
112 - 116	(A)	150-160	10'	0.08		
116 - 206	(B) slightly epidotized	160-170	10'	0.07		
	Faults at 142-144, 179, 184-185	170-180	10'	0.06		
		180-190	10'	0.08		
		190-200	10'	0.07		
		200-206	6'	0.05		

# DIAMOND DRILL RECORD

PROPERTY STRIKE-LORNA

HOLE No. A 1 (ADEDA 1966)

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. A 1 Sheet No. 1  
 Section \_\_\_\_\_  
 Date Begun \_\_\_\_\_  
 Date Finished \_\_\_\_\_

Lat. 29+90S  
 Dep. 17+70E  
 Bearing Vert.  
 Elev. Collar ≈ 4440

Total Depth 256  
 Logged By RJ  
 Claim \_\_\_\_\_  
 Core Size AXWL  
 Recovery 83%

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE			
0-10	overburden					
10-88	fine grained, dark gray-green breccia of general andesitic composition, badly broken; clay, chlorite, epidote alterations, slightly magnetic, fractures healed by calcite. 53% recovery; irregular streaks and disseminations of pyrite, several small gouge filled faults @ 75-88					
88-113	med grained, dark gray trachytic andesite breccia, granitized, pyritized, epidotized moderately magnetic.					
113-114	fine grained, black basalt cutting core at 45°, strongly magnetic					
114-256	fine grained, light gray andesitic, granitized breccia, weakly magnetic, 2-4% pyrite weak clay alterations, numerous gouge seams. Strong gouge filled fault at 256. Some pyritized specimens assayed as follows					
	129-256	0.005 oz Au, 0.20 oz Ag, 0.07% Cu				
	159-256	0.005 oz Au, tr Ag, 0.11% Cu				

# DIAMOND DRILL RECORD

PROPERTY Strike - Lorna

HOLE No. A3

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. A3 Sheet No. 1  
 Section.....  
 Date Begun.....  
 Date Finished.....

Lat. 20+70S  
 Dep. 18+90E  
 Bearing 564°W, -60°  
 Elev. Collar ≈ 4510

Total Depth 291  
 Logged By Rd.  
 Claim Lorna 6  
 Core Size AXWL  
 Recovery 93%

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	CORE %Cu			
0 - 4	overburden	139-149	10	0.42			
4 - 107	med. grained, gray-green epidotized, oxidized granitized andesitic breccia, some dioritic facies contain dark gray to black fragments moderately magnetic, fractures healed by calcite, some K. feldspar alteration, some argillic alteration.						
107 - 178	fine grained, dark gray, epidotized, granitized andesitic breccia, moderately magnetic in places, infrequent calcite seams filling fractures, some K. feldspar alteration, pyrite and some chalcopyrite 139-161 faulted zone 161-166 silicification 177-178						
178 - 188	granular, light gray chloritic, feldspathic andesite, weakly magnetic, 3% pyrite traces of chalcopyrite.						
188 - 291	same as between 107-178, chloritic faulted zone 225-240, gouge 27% recovery. fault, 244-246, 264-266; fault zone 273-291, 56% breccia, many nodules healed by calcite.						

# DIAMOND DRILL RECORD

PROPERTY STRIKE-LORNA

HOLE No. A2

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. A2 Sheet No. 1  
 Section \_\_\_\_\_  
 Date Begun \_\_\_\_\_  
 Date Finished \_\_\_\_\_

Lat. 24+00S  
 Dep. 11+60E  
 Bearing S65°W, -60°  
 Elev. Collar 24410

Total Depth 169  
 Logged By R.L.  
 Claim Strike 7 Fr.  
 Core Size AXWL  
 Recovery 77%

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE			
0-25	overburden					
25-41	heavily oxidized pyritic andesite pebbles					
41-88	fine grained, light gray granitized andesitic breccia, badly fractured, moderate argillic alteration, 4-5% pyrite weakly magnetic, some fractures healed by calcite.					
88-103	fine grained, dark gray granitized andesite breccia, weakly magnetic, 2% pyrite generally moderately kaolinized, gougey at 96-97, 100-102					
103-145	same as above, between 41-88, argillic alteration increasing with depth, strong argillic alteration at 140 accompanied by red hematite, little pyrite.					
145-169	Strong gougey fault, no recovery.					
	Selected pyritic specimens between 41-145 assayed 0.005 oz Au, 0.7002 Ag, 0.33% Cu.					

# DIAMOND DRILL RECORD

PROPERTY Strike - Lorna

HOLE No. A 4

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. A 4 Sheet No. 1  
 Section \_\_\_\_\_  
 Date Begun \_\_\_\_\_  
 Date Finished \_\_\_\_\_

Lot. 9190 S  
 Dep. 8180 E  
 Bearing S 81° W, -60°  
 Elev. Collar ± 4360

Total Depth 310  
 Logged By RL  
 Claim Strike 3  
 Core Size AXWL  
 Recovery 99%

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE	CORE % Cu			
0-6	Overburden	6-16	10'	0.19			
6-50	fine grained, dark gray, equigranular granitized andesite, pseudo granitic texture, moderately and uniformly magnetic, some K. feldspar alteration, general weak epidotization, irregular streaks, blebs and disseminations of magnetite, a little pyrite.	16-26 26-36 282-292	10' 10' 10'	0.19 0.35 0.07			
50-217	fine grained, dark gray granitized breccia generally epidotized often along small slips cutting core at 50°, moderately magnetic, some fractures healed by calcite; several massive equigranular sections separated by broken, fragmental, flow textured andesite, K. feldspar alteration 67-80, 120-121, 151-163; malachite at 76.5; a little pyrite chilled & fragmental flow contact at 93-104, 121-131, 210-217						
217-252	medium grained, gray andesite porphyry, occasional, K. feldspar, epidote & calcite seams,						



# DIAMOND DRILL RECORD

PROPERTY Strike-Lorna

HOLE No. A5

DIP TEST		
Footage	Angle	
	Reading	Corrected

Hole No. A5 Sheet No. 1  
 Section.....  
 Date Begun.....  
 Date Finished.....

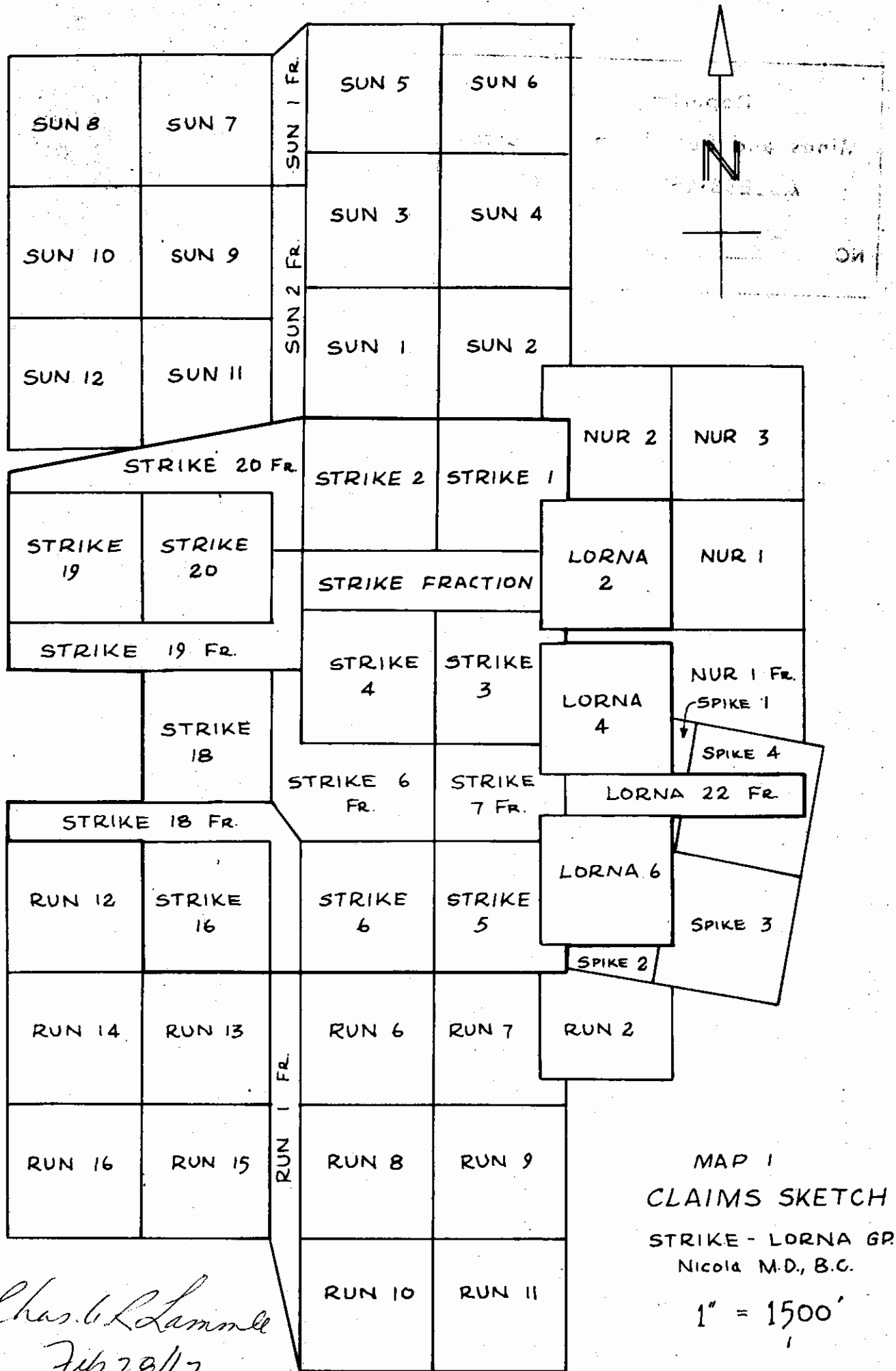
Lat. 29+50 S  
 Dep. 3+50 W  
 Bearing S46°W, -66°  
 Elev. Collar ≈ 4190

Total Depth 275  
 Logged By RL.  
 Claim Strike 6  
 Core Size AXWL  
 Recovery 98%

DEPTH	DESCRIPTION	SAMPLE No.	WIDTH OF SAMPLE		
0-12	Overburden				
12-50	f.g. dark gray, non-magnetic micrograywacke faint banding at 80°, fractures @ 6" intervals filled with calcite, some rusty.				
50-61	f.g. aphanitic, black finely bedded argillite bedding @ 75-80° to core, contact knife edge fractures healed with calcite				
61-66	greywacke				
66-68	argillite				
68-81	greywacke				
81-84	argillite; argillite & greywacke interbedded				
84-90	argillite				
90-96	graywacke				
96-115	badly broken, argillized graphitic argillite				
115-135	finely bedded to laminated graywacke & argillite				
135-192	massive black argillite				
192-205	interbedded argillite & graywacke, some graded bedding, (top-side-up) some platy pyrite bedding @ 45°-50°				
-					
205-275	interbedded graywacke and argillite, some platy pyrite bedding at 80°.				







QUALIFICATIONS OF MAGNETOMETER OPERATOR.

I, Charles G. Kammale, P. Eng., hereby certify that Gordon A. Webster, magnetometer operator:

1. Is a high school graduate,
2. Is a conscientious, reliable person.

3. Was trained by myself personally to operate the McPhar M500 magnetometer and was

supervised by myself personally on this

job and on several other similar magnetic

survey jobs during the summer season of

1966, and

4. Is a capable magnetometer operator.

Charles G. Kammale, P. Eng.  
May 23, 1966

An accompanying report on Strike-down Group.

Michele M.D., B.C. by Char. G. Kammale P. Eng.

Dated Feb. 28, 1967.

continuation of this type of mineralization under overburden is possible along strike at both ends. Rock types, structures and mineralization are described in more detail under the appropriate heading below:

Rock Types Assuming the regional folding interpretation valid and a normal, top-side<sup>up</sup> stratigraphic succession, the oldest exposed rocks on the property are the westernmost -- the fine dark sediments. The rock types are described in order of this assumed age, oldest to youngest.

Argillite, Greywacke: No natural exposures of these rock types were found on the property, all were uncovered by bulldozing in an attempt to expose the cause of the Duke I.P. anomaly. In addition, D.D.H. A5 cored these rocks. As interpreted they have a NW strike length of 1500', being cut off at both ends by interpreted faults, and a width in excess of 900'. No reliable attitudes were found on surface but distinct fine bedding cuts the  $-60^{\circ}$  cores at about  $80^{\circ}$ . Assuming the NW strike interpretation valid, the dip of the strata must be either  $20^{\circ}$  or  $40^{\circ}$  NE, and outcrop evidence in other rocks suggest the latter dip.

Trench exposures are predominantly a black, aphanitic micrograywacke grading to argillite. The core shows thick sections of similar rock interlayered with alternating sequences of finely bedded to laminated, gray, fine grained graywacke and argillite. Small amounts of thin, plated pyrite occur on tight joints in the argillite. In places near faults, the argillite is reduced to graphitic material.

No copper minerals were observed in either graywacke or argillite.

Lithic Tuff: Two small outcrops of dull red to purple, medium grained lithic crystal tuff were observed on the mapped area. They are composed of lithic fragments and feldspar crystals set in a fine red hematite-coloured matrix. The feldspar is slightly argillized, and the rock in general is slightly epidotized and moderately magnetic as indicated by a pencil magnet. The continuity and relation-

ship of the tuff to the other rock units cannot be ascertained from the limited and widely spaced exposures. No sulphides were found in the outcrops.

Granitized Breccia: As interpreted, these rocks occupy a 2500' wide belt running NW across the central portion of the mapped area. They are the most resistant rock type exposed and form numerous outcrops for a 1 mile strike length before disappearing under overburden at both ends. Many of the surface exposures are massive and homogeneous with a pseudo-granitic texture, other exposures are distinctly brecciated, and exposures near the NW and SE extremities of the mapping grade into a normal fragmental andesite which is common in the Nicola Group. Individual drill cores reveal several alternating layers of variously brecciated and fragmental andesite sandwiching massive, near-granitic textured andesite, each layer being separated by fine, dark, flow textured material. Because of these layers the rocks are thought to have formed as a sequence of slow cooling flows or pyroclastic flows.

The rocks are fine to medium grained, dark gray or green and frequently granitic textured. Constituent minerals are plagioclase, orthoclase hornblend and augite, the mafic minerals making perhaps 30% of the rock. Seams and irregular replacements of orthoclase are common in the rock, epidote occurs widespread and irregularly but chiefly along NW trending, NE dipping fractures and micro-faults, and magnetite occurs irregularly as a constituent of the rock, in more concentrated disseminations and as small discontinuous veinlets. Near faults the rock is reduced to clay minerals that are heavily oxidized near surface.

On the surface near the central portion of the granitized breccia belt, weak disseminated chalcopryrite with minor pyrite occurs at frequent intervals over a strike length of 5000'. Drill cores reveal more pyrite and less chalcopryrite. Assays indicate a higher copper content than is visually apparent.

Andesitic Tuff: These rocks form a NW trending belt at least 1800' wide at the northeast corner of the mapped area. Their continuity along strike is not apparent but is probably quite

considerable. They are dark green, medium to coarse grained and of general andesitic composition. Some fine grained equivalents are present. Near their contact with the granitized breccia a marked schistosity and platy cleavage has developed in the rock. No copper minerals were found in the andesitic tuff but minor disseminated cube pyrite was observed in a couple of exposures.

### Structures

As interpreted, the volcanic and sedimentary strata on the mapped area strike northwesterly. An attitude measured in the andesitic tuff, numerous NW striking east dipping joints and micro-faults in the breccia, and drill core attitudes in the argillite-graywacke indicate the dip is moderate,  $40^{\circ}$  or so, to the north east.

Observed faults strike northerly and seem to have near vertical dips. Three strong faults inferred to fit geologic and geophysical data strike NNE, N, and NNW. It is probable that the inferred NNW fault is actually a zone several hundred feet wide in which there is a great deal of lesser faulting. The relationships to these faults and strong northerly photo linears is not clear, but a strong northerly fault running through Duke Lake can be suspected. The relationship of the NNW fault and the copper mineralization that occurs on either side of it is not clear, but the better mineralization is removed several hundred feet from its interpreted surface trace.

### Mineralization

The original mineralization was discovered in 1962 near the edge of a logging road at 3S, 1W (coordinates in hundreds of feet). Here fairly good grade, (12' of 1.56 % Cu as sampled by Plateau), very finely disseminated chalcopyrite occurs in altered rock of the granitized breccia unit. Two hundred feet south along the road, bulldozing exposed a crushed and oxidized "gossan" which assayed 0.27% Cu, 0.24 oz. Ag over 95', as sampled by Plateau. Further bulldozing at this time exposed additional mineralization at localities A4, P3 and near the road on line 5N. Prospecting by Plateau disclosed most of the surface mineralization as presently mapped.

All of the surface exposures have similar type mineralization -- finely disseminated chalcopyrite, some malachite staining, and very little of anything else, all in granitized breccias, at times associated with orthoclase seams and impregnations, at times near disseminations or seams of magnetite, at times with both and at times with neither. Epidote is widespread in the rocks but without clear association with the chalcopyrite. There is no obvious joint or fracture control except possibly at the northernmost showings. There is little hydrothermal alteration except for a small area at the original find. The "gossan" is thought to be caused by crushing, kaolinization and oxidation resulting from faulting.

Most drill cores reveal small amounts of copper. In some instances the amount of visible copper in the cores was so small it was not considered necessary to split and sample them completely. However, these portions assayed frequently returned higher values than were expected from visual examinations. Available core assays are averaged below:

STRIKE-LORNA CORE ASSAYS

Hole No.	Footage	Interval	Assay % Cu
P1 (-45°) (Plateau)	0 - 50	50	0.11
Pla (-60°)	0 - 44	44	0.08
Pla	44 - ?	?	0.47
P3	10 - 140	130	0.22
P3	140 - 206	66	0.07
A1 Adera	29 - 59	30	0.07
A3	139 - 149	10	0.42
A4	6 - 36	30	0.24
A4	282 - 292	10	0.07
A6	27 - 37	10	0.08

From these assays and the distribution of the drill holes, it is apparent that there could be a very large tonnage of material grading between 0.1 and 0.2% Cu. Also, because of the distance between drill holes and their lengths, the possibility of better grade sections between the drill holes and at greater depth cannot be ruled out.

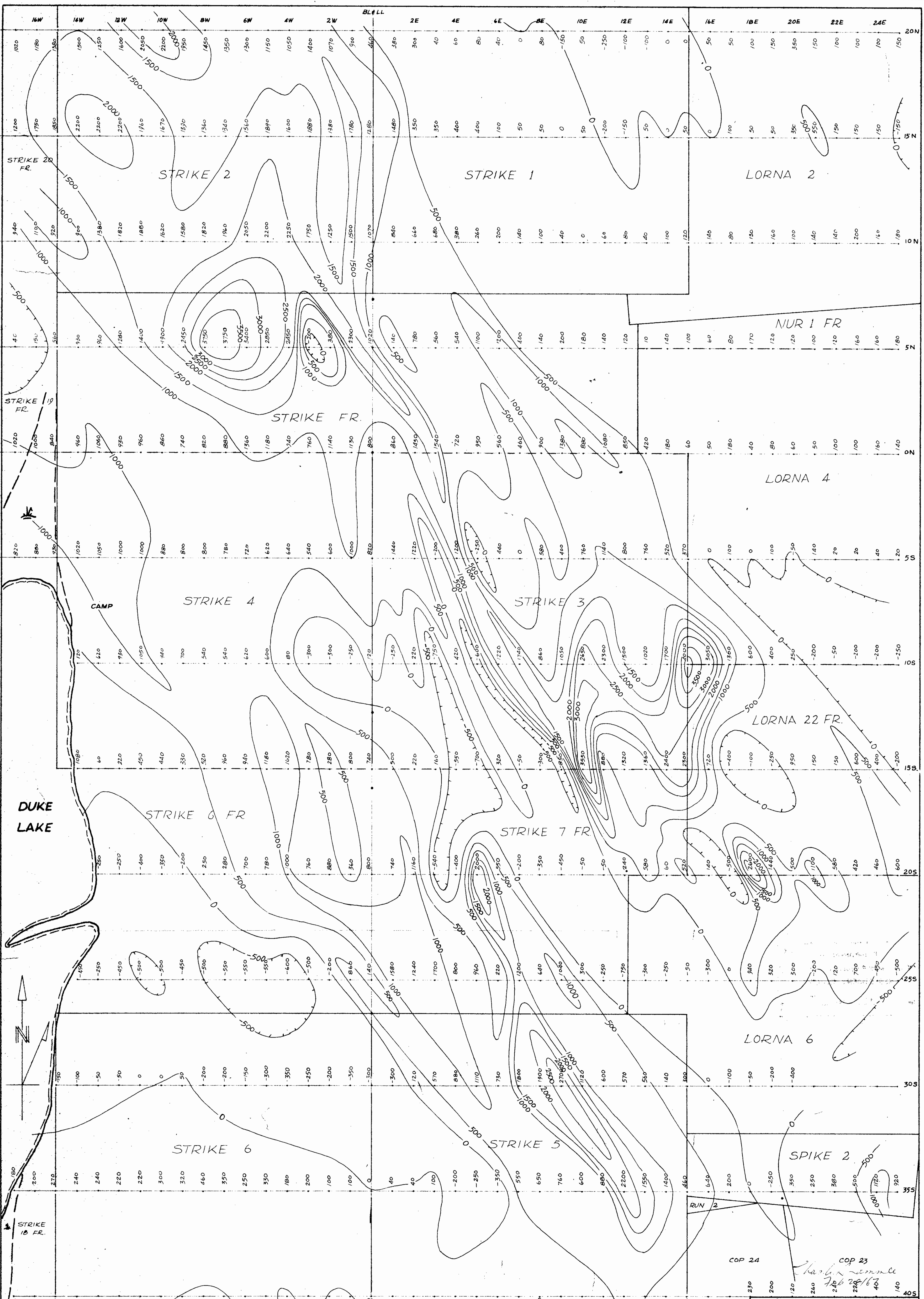


Geology by C. A. R. Lammie, P.R. Eng.  
 Map Control - Plateau Metals geol. files.  
 To accompany report on Strike-Lorna  
 Group, Nicola M.D., B.C., dated  
 Feb. 28, 1967, by C. A. R. Lammie, P.R. Eng.

- |   |   |
|---|---|
| <p>NICOLA GP</p> <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #c8e6c9; border: 1px solid black; margin-right: 5px;"></span> Andesitic tuff</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #e0e0e0; border: 1px solid black; margin-right: 5px;"></span> Gneissized breccia</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #e8f5e9; border: 1px solid black; margin-right: 5px;"></span> Lithic tuff</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #e0e0e0; border: 1px solid black; margin-right: 5px;"></span> Argillite, graywacke</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #e0e0e0; border: 1px solid black; margin-right: 5px;"></span> Metasediments, arg., mol., az.</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #e0e0e0; border: 1px solid black; margin-right: 5px;"></span> Pyrite, oxidation</li> </ul> | <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; border-bottom: 1px dashed black; margin-right: 5px;"></span> Fault</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px dotted black; margin-right: 5px;"></span> Bedding</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Joints, steep, incl.</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Schistosity</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Claim boundaries</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Picket lines</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Diamond Drill Holes</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Transverse striping</li> </ul> |
|---|---|

<b>ADERA MINING LTD.</b>			
<b>STRIKE LORNA GROUP</b>			
B.C. Nicola M.D. Missakula Area	<b>GEOLOGY</b>		
SCALE 1" = 200'	DATE Feb '67	DRAWN L.L.	MAP NO. 2





Map Control - Plateau Metals grid lines.  
 To accompany report on Strike-Lorna  
 Group, Nicola M.D., B.C., dated  
 Feb. 28, 1967, by C.A.R. Lammie, P.Eng.

SUPERVISOR - C.A.R. Lammie, P.Eng.  
 OPERATOR - G.A. Webster, Princeton, B.C.  
 INSTRUMENT - McPhar M500 Fluxgate Magnetometer  
 Readings represent relative vertical component  
 of the earth's magnetic field.  
 Readings corrected daily for diurnal variation

Instrument readings shown along picket lines.  
 Contour interval - 500 gammas.

977

ADERA MINING LTD. STRIKE LORNA GROUP		Magnetometer Survey	
B.C. Nicola M.D. Mississauga Area	SCALE 1" = 200'	DATE Feb '67	DRAWN RL
MAP NO 3			