

GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORTS

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GEOLOGICAL REPORT  
ANY 3-7 CLAIMS  
GUICHON CREEK AREA  
Nicola M.D.  
92I/7W

Report By R.E. Gale, PhD. P. Eng.  
R.E. Gale and Associates Inc.  
December 15, 1995

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VANCOUVER, B.C.

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GEOLOGICAL BRANCH  
ASSESSMENT REPORT

24,216

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## INTRODUCTION - SUMMARY

The Amy 3-7 claims were staked and explored in 1995

The 5 Amy claims adjoin the eastern side of the old Aberdeen Mine area and occupy the ground between the 6 Crown Grants of the Aberdeen group and 3 other old Crown Grants on Guichon Creek. All of these claims lie about 20 kms. southeast of the large producing porphyry copper mines of the Highland Valley area.

It is believed that the Amy claims area may cover mineralized intrusive rocks with porphyry copper exploration potential. On the Amy claims, bedrock is mainly covered by glacial overburden up to 30 or 40 metres deep.

Predominant mineralized fracture trends at the Aberdeen Mine adjoining the Amy group and the nearby Viny prospect are N60 degrees west. The other well developed structural trend in the area is north-south, parallel to the Guichon Fault. It is inferred in this report that these 2 fracture trends intersect on the Amy claims forming favorable sites for fracture controlled porphyry copper mineralization.

I.P. surveys conducted in the 1960's found an I.P. anomaly near what is now the northern boundary of the Amy claims and it is probable that a new I.P. survey would confirm the anomaly and prove that it extends farther south onto the Amy claims. An I.P. survey is therefore recommended as a first stage in exploration of these claims.

## LOCATION - ACCESS

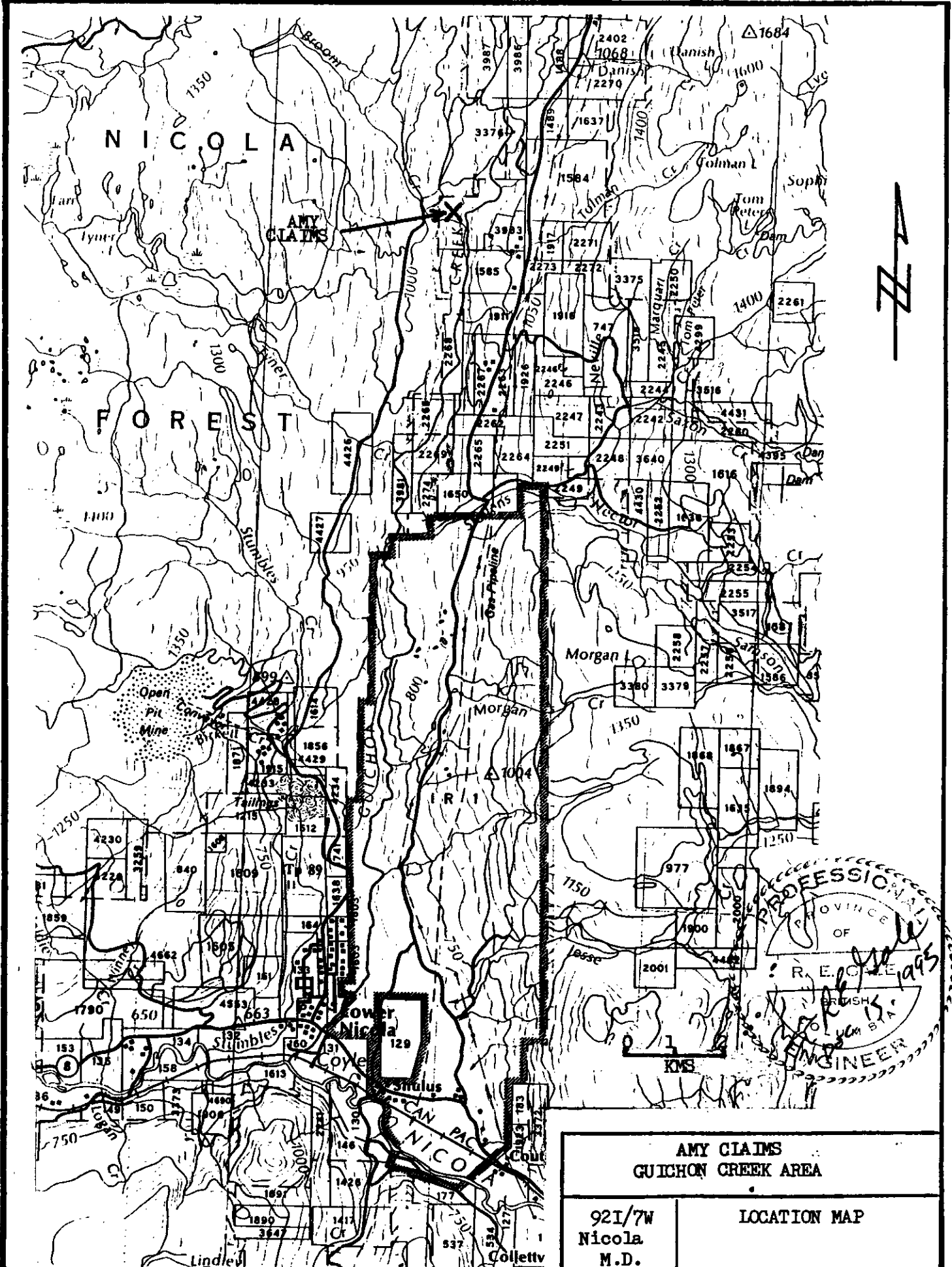
The Amy claims are easily accessible by good roads from the village of Lower Nicola on Highway 8, about 16 kms north of the village. The claims are located on and around Broom Creek which flows east into Guichon Creek.

The location of the property is shown in Figure One.

## PHYSIOGRAPHY - TOPOGRAPHY

The Amy claims lie at an elevation of about 800 - 1000 metres above sea level on a narrow bench of flat ground bordering the west side of Guichon Creek. The area is sparsely forested with small spruce, pine and hemlock and has been partly logged off.

Rain and snowfall in the area is moderate and the good access and relatively mild climate allow exploration work to be carried out during most of the year.



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 PROVINCE  
 OF  
 R.E. GALE  
 BRITISH  
 COLUMBIA  
 ENGINEER  
 1995

**AMY CLAIMS  
 GUICHON CREEK AREA**

921/7W Nicola M.D.	LOCATION MAP
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Scale 1:100,000	Date Dec 1995	Approved	File No. FIGURE 1
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## CLAIMS

The Amy 3 to 6, 2-post claims, were staked April 6, 1995 and the Amy 7, 2-post claim was added May 11, 1995, bringing the group to a total of 5 contiguous claims.

Figure three shows the location of the Amy claims in relation to the Crown Grant claims and the Dot claims adjoining the northern border of the Amy claims.

Claim Name	No. of Units	Tenure No.	Present Anniversary Date
Amy 3,4,5,6	4	334698-701	April 6, 1996
Amy 7	1	335670	May 11, 1996

## EXPLORATION HISTORY

Exploration and mining of the Aberdeen claim dates back to 1899, with total production during the period 1907 to 1960 as recorded by Minfile of about 1850 tons grading approximately 6.7% Cu. with a total of 246,276 ounces of contained silver and 9 ounces of gold. The Aberdeen Crown Granted claims and the Crown Grants on Guichon Creek are owned by Highland Valley Copper Mines Ltd.

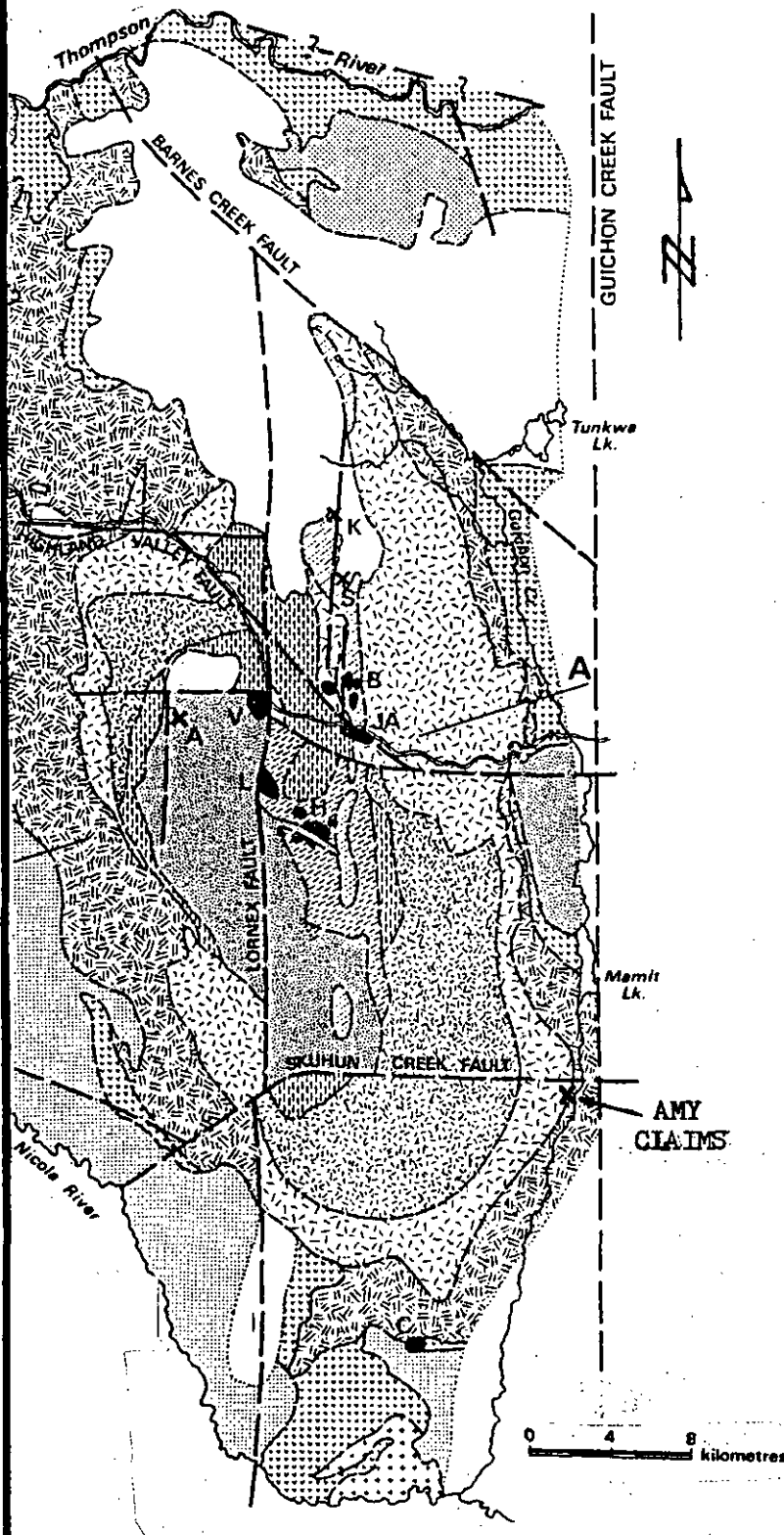
The Vimy prospect about 1.5 Kms. north of the Aberdeen Mine also dates back to the early 1900's, and in 1925, had a small production of 85 tons grading 10.9% Cu containing a total of 60 ounces of contained silver. The Vimy has a drill inferred resource of about 820,000 Tonnes of 0.35% Cu, according to minfile. The Vimy prospect is now covered by the Dot claims owned by Larry Ovington.

The Aberdeen-Vimy area was explored by several companies in the late 1950's through 1995, including the following firms:

- Bethlehem Copper - Kennecott - 1958-59
- Bralorne Mines - 1966-67
- Bethlehem - 1968
- Chataway - Asarco - 1969-70
- Torwest - Highmont - 1970
- Canadian Superior - 1971
- Lawrence Mining - 1981
- Highland Valley Copper Mines - 1980's to present
- Zappa Resources 1991-92

Much of the data resulting from the above work has not been published and is not available.

The most recent work by Zappa Resources on the Vimy area consisted of Reverse Circulation and diamond drilling and has demonstrated an increased tonnage of copper resources compared to the tonnage figure given in Minfile.



- TERTIARY**
- VOLCANIC AND SEDIMENTARY ROCKS
- CRETACEOUS (?)**
- VOLCANIC AND SEDIMENTARY ROCKS
- JURASSIC**
- SEDIMENTARY ROCKS
- INTRUSIVE ROCKS OF THE BATHOLITH YOUNGER PHASES**
- BETHSAIDA PHASE
  - SKEENA VARIETY
  - BETHLEHEM PHASE
- OLDER PHASES**
- HIGHLAND VALLEY**
- CHATAWAY VARIETY
  - GUICHON VARIETY
- BORDER PHASE
- INTRUSIVE ROCKS OF UNCERTAIN AFFILIATION**
- COYLE GRANITE
- UPPER TRIASSIC**
- VOLCANIC AND SEDIMENTARY ROCKS
- KRAIN** ..... K
- SOUTH SEAS** ..... S
- BETHLEHEM** ..... B
- J.A.** ..... J.A.
- VALLEY** ..... V
- ALWIN** ..... A
- LORNEX** ..... L
- HIGHMONT** ..... H
- CRAIGMONT** ..... C
- ORE DEPOSITS, IMPORTANT PROSPECT** ..... X
- AREAS WITH SWARMS OF PORPHYRY DYKES** .....
- FAULTS: MAPPED, INFERRED** .....

MODIFIED FROM  
GAC FILE NO. 1  
PROFESSIONAL  
PROVINCE  
OF  
R. E. GALE  
15, 1995  
COLUMBIA  
ENGINEER

R. E. GALE AND ASSOCIATES INC.

AMY CLAIMS GUICHON CREEK AREA			
92I/7W Nicola M.D.	REGIONAL GEOLOGY GUICHON BATHOLITH		
Scale 1:200,000	Date Dec 1995	Approved	File No. FIGURE 2

The present work reported here on the Amy claims consisted of a review of all old published data, several traverses of the Amy claims with sampling of the one mineralized outcrop noted, a study of airphotos of the area and sampling of the Aberdeen dump, to give some idea of the potential type of mineralization present in the area.

#### REGIONAL GEOLOGY

Regional Geology, Figure Two, is taken from GAC Field Guide No. 1, Geology and Ore Deposits of the Highland Valley Camp. This map shows the 6 different intrusive phases of the Guichon Batholith and the major deposits associated with the intrusions.

The Guichon Batholith is a composite intrusion of Jurassic age intruding Upper Triassic volcanic and sedimentary rocks. The batholith is elongate north-south being approximately 60 Kms. long by 30 Kms. wide. It appears that the exterior form of the batholith and the interior contacts of the different intrusive phases were controlled by preexisting north-south and east-west trending faults and shears which postdated the time of intrusion. The location of the ore deposits was also controlled by the intersections of these structures, and in some cases renewed movements on the structures caused postmineral offsets of the deposits on the same faults.

The median fault in the batholith, the Lornex fault, was very important in controlling emplacement of the Lornex and Valley Copper deposits. Similarly, the Bethlehem, JA and Highmont deposits lie on or close to one or more north-south faults parallel to the Lornex fault. Intersections of N60 degree west and north-south structures have been particularly important in forming sites for copper deposition. This fact suggests that similar structural intersections elsewhere in the Guichon Batholith should be investigated for their exploration potential, especially if the youngest intrusive phases in the batholith are present near these favorable intersections.

Mineralized N60 degree West fracture zones are present at the Aberdeen, Plymouth Queen and Viny prospects and are inferred to also underlie the Amy claims. Inferred north-south structures underlying the broad covered area west of Guichon Creek are apparent on airphotos. These N-S trending inferred structures parallel the Guichon Creek Fault and could form sizeable mineralized intersections with east-west trending structures on the Amy claims and other areas to the north on the Dot claims.

## AMY PROPERTY GEOLOGY

Figure Three shows the location of the Amy property and adjoining prospects, the Aberdeen, Plymouth Queen and Viny. Also indicated are mapped and inferred shear zones, I.P. anomalous areas and location of samples taken during work on the area.

Very little outcrop is present on the Amy claims. Small outcrops of fresh looking Guichon Quartz Diorite occur on the Amy 5 claim and on the Amy 7 claim, weakly altered pyritized porphyritic hornblende quartz diorite, possibly dikes, occur in a NW trending shear zone in the banks of Guichon Creek. According to old reports, the latter area is said to include native copper mineralization, but only malachite on fractures was found during my survey. A picked sample of this copper mineralization, Sample No. 25723 showed 152 PPM Cu.

A silicified zone carrying pyrite 1-2 metres wide also occurs here, which may be a quartz vein or simply a silicified zone in the intrusive. Sample No. 25724 across a 1.5 metre width of the siliceous material contained 705 PPM Cu. A soil sample of rusty soil overlying the siliceous zone, Sample No. 25725, showed 221 PPM Cu. Copies of complete assay results are included in the Appendix.

Picked dump samples of different types of mineralization present on the Aberdeen dump were collected in order to determine the copper and gold content and give some idea of the type of mineralization which could be encountered on the Amy claims on possible extensions of the Aberdeen and Plymouth Queen structures.

Sample No. 25722 is black tourmaline which has a pseudo breccia appearance with grey to red fragments of hematite in the tourmaline matrix. On close inspection hairline fractures of native copper associated with fine veinlets of quartz can be seen cutting the tourmaline - hematite. This type of rock assayed 120 PPB Au, 15.6 PPM Ag and > 10,000 PPM Cu.

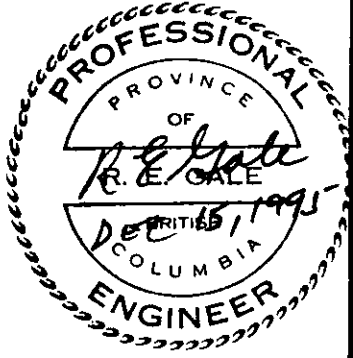
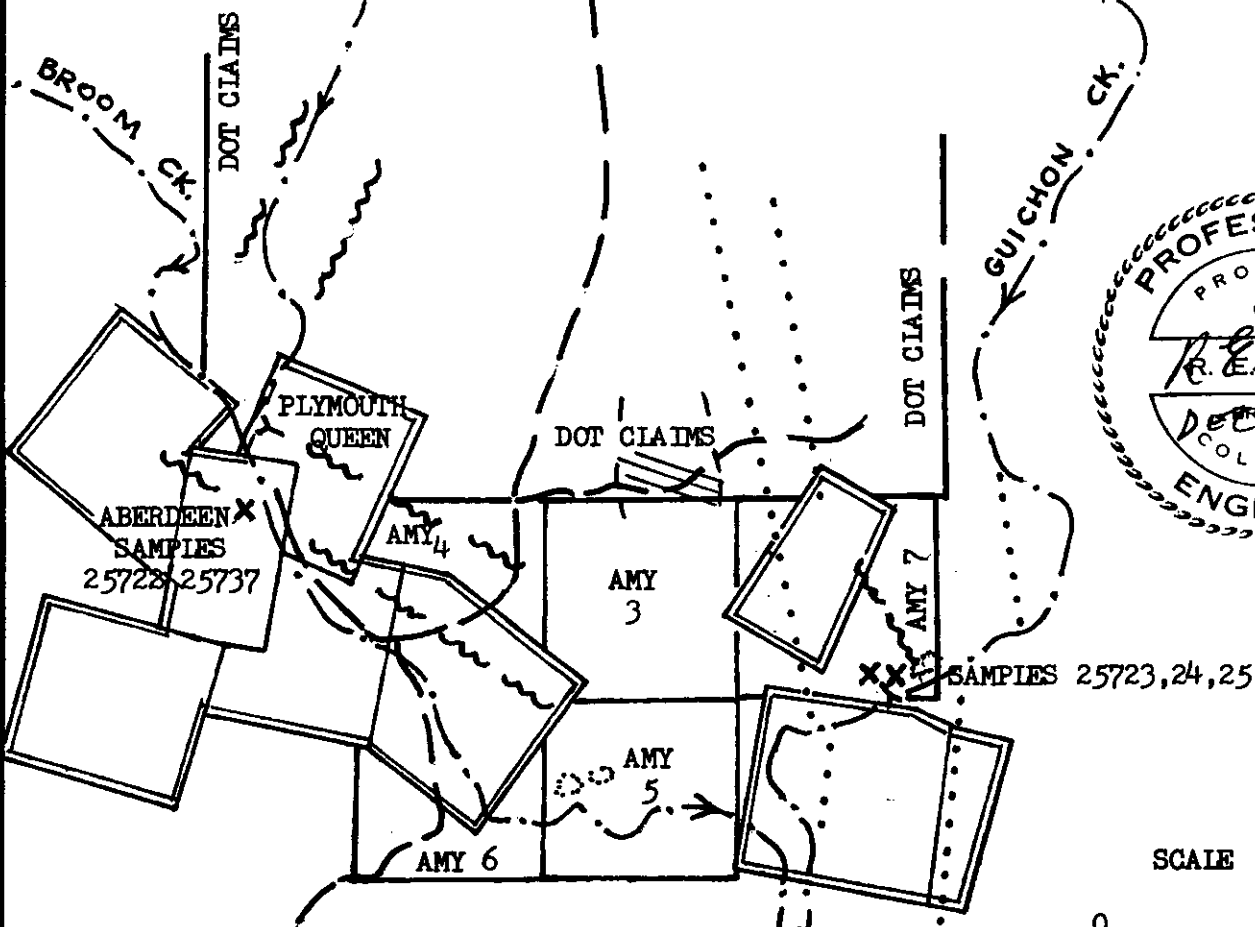
BCMM Report 1928, page C223 notes that similar quartz-tourmaline mineralization forms a vein at the lower elevations of the mine and contains sporadic bunches of native copper.

Sample No. 25737 is massive black chalcocite-hematite mineralization, which probably represents the highest grade material mined at the Aberdeen Mine. A picked sample of this type of material from the dump assayed 8.30% Cu., 0.002 OPT Au. and 0.66 OPT Ag.

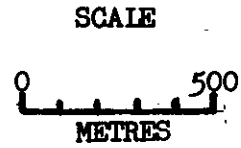
Copies of assays on Aberdeen dump samples are in the Appendix



VIMY  
DRILL AREA



- Y TUNNEL
- OUTCROP
- x SAMPLE SITE
- ~ INFERRED FAULT
- ... AIRPHOTO LINEAR
- ┌ CROWN GRANT BOUNDARY
- ▬ ROAD
- ▨ I.P. ANOMALY



R. E. GALE AND ASSOCIATES INC.

AMY CLAIMS GUICHON CREEK AREA			
92I/7W Nicola M.D.	GEOLOGY		
Scale 1:2000	Date DEC/95	Approved	File No. FIGURE 3

Mineralized structures in the Aberdeen Mine are said to have been about 3-4 metres wide and if similar structures extend on to the Amy claims, they could form narrow high grade Cu-Au exploration targets on the Amy claims which would be mineable underground.

Of greater significance is the possibility that N60 degree west to east-west fracture zones, similar to the Aberdeen, Plymouth Queen and Vimy zones, where they intersect the inferred north-south structures seen on the Amy claims will form very large zones of low grade Cu-Au mineralization which could be mined by open pit.

Shown on Figure three are the north-south structural trends inferred from airphotos, plus the location of the I.P. anomaly on the boundary of the Amy and Dot claims, which is known from 2 previous I.P. surveys. The anomalous area near the Amy - Dot claims boundary may extend southward onto the Amy claims and thus a new I.P. survey is the most important future work to be done on the Amy claims.

#### CONCLUSIONS AND RECOMMENDATIONS

The large covered area of deep (30 -40 metres) overburden bordering the west side of Guichon Creek on the Amy and Dot claims is the best target area for a large low grade Cu-Au deposit.

Airphotos reveal the presence of at least 2 northerly trending lineaments paralleling the Guichon Creek Fault, which are probably related to shear zones in the bedrock. These structures appear to continue across the Amy claims and southward on down Guichon Creek.

The NW trending shear zone noted outcropping on Guichon Creek on the Amy 7 claim is probably a branch fault related to the northerly trending structures. Some low grade copper mineralization and pyrite is associated with the NW structure here on the Amy 7 claim demonstrating that the northerly trending structures have copper mineralization associated with them and are therefore good exploration targets.

No I.P. survey has ever been done over the Amy claims area and it is very possible that the I.P. anomaly noted at the Amy-Dot claim boundary extends further south onto the Amy claims. Another I.P. anomalous area is known to the north of the Amy-Dot boundary so that further work may be justified in the latter direction also.

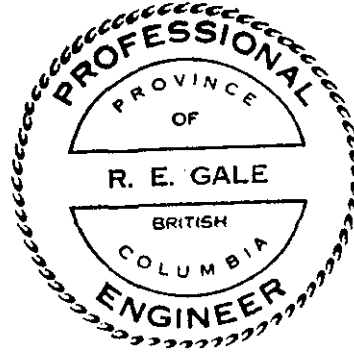
Followup drilling of I.P. targets should be done once the size, intensity and depth to the I.P. targets is known.

STATEMENT OF COSTS

APRIL 7, MAY 11, AUGUST 17, DECEMBER 15, 1995

Gas,oil and vehicle repairs.....	\$ 240.70
Highway tolls.....	60.00
Food and accomodation.....	475.87
Truck rental, 4x4 truck, 3 days @ \$50.00 per day.....	150.00
Assaying 5 samples.....	119.43
Air photos, 3 @ \$8.50.....	25.50
Assistant wages, A. Hall, 2 days @ \$75.00 per day.....	150.00
Field work, R.E. Gale 3 days @ \$400 per day.....	1200.00
Writing report, R.E. Gale 1 day @400 per day.....	400.00

-----  
Total Cost \$ 2821.50



*R E Gale*

R.E. Gale, PhD. P.Eng.  
Dec. 15, 1995

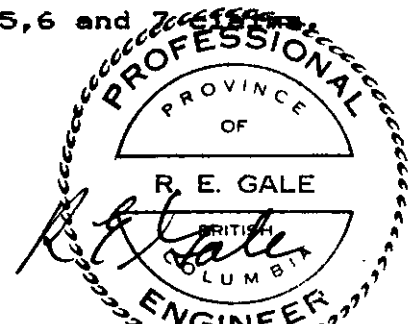
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- Weeks, J.P. 1966 Geophysical Report on Gypsum Lake Area for Bralorne Pioneer Mines Ltd. Asst. Rept. 764
- Wells, R.A. 1981 Percussion and Diamond Drillhole Report on Vimy Property for Lawrence Mining. Asst. Rept. 9699

CERTIFICATE  
-----

I, R.E. Gale do hereby certify that:

1. I am a Consulting Geologist with R.E. Gale and Associates Inc. with my office at 107-2274 Folkestone Way, West Vancouver, B.C.
2. I graduated from Stanford University with a Ph.D. in Geology in 1965.
3. I have been practicing my profession as a geologist for forty years.
4. I have been a member in good standing with the Association of Professional Engineers and Geoscientists of B.C. since 1966.
5. This report is based on my personal examination of the Amy claims on April 6 and 7, May 11 and 12, and August 16 and 17, 1995, and the study of available data on the area.
6. I am the recorded owner of the Amy 3,4,5,6 and 7 ~~claims~~ Nicola M.D., British Columbia.



R.E. Gale, P.Eng.  
December 15, 1995

**APPENDIX**

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# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: GALE, R. E.

107 - 2274 FOLKESTONE WAY  
WEST VANCOUVER, BC  
V7S 2X7

Project: *AMY CLAIMS*  
Comments: ATTN: ROBERT E. GALE

Page Number : 1-A  
Total Pages : 1  
Certificate Date: 18-APR-95  
Invoice No. : I9515193  
P.O. Number :  
Account : CNF

## CERTIFICATE OF ANALYSIS

A9515193

SAMPLE	PREP CODE		Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
			FA+AA																		
25722	205	226	120	15.6	0.24	6	30	< 0.5	< 2	0.32	< 0.5	4	211	>10000	1.36	< 10	2	0.09	< 10	0.16	70
<i>ABERDEEN DUMP QTZ - TOURMALINE - HEMATITE ROCK</i>																					

CERTIFICATION:

*Hart Bickler*



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107 - 2274 FOLKESTONE WAY  
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Project: AMY CLAIMS  
Comments: ATTN: ROBERT E. GALE

Page Number : 1-B  
Total Pages : 1  
Certificate Date: 18-APR-95  
Invoice No. : I9515193  
P.O. Number :  
Account : CNF

## CERTIFICATE OF ANALYSIS

A9515193

SAMPLE	PREP CODE		Mo	Na	Ni	P	Pb	Sb	Sc	Sr	Tl	Tl	U	V	W	Zn
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<p>ABERDEEN DUMP            QTZ - TOURMALINE - HEMATITE ROCK</p>																

CERTIFICATION: Hart Bichler





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WEST VANCOUVER, BC  
V7S 2X7

Page Number : 1-A  
Total Pages : 1  
Certificate Date: 25-MAY-95  
Invoice No. : I9517517  
P.O. Number :  
Account : CNF

Project : AMY 7 CLAIM  
Comments:

## CERTIFICATE OF ANALYSIS A9517517

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	FA+AA																				
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25725	205	226	< 5	0.2	1.85	4	270	0.5	< 2	1.18	< 0.5	13	108	221	3.54	10	1	0.51	< 10	0.63	570



CERTIFICATION: Hart Becker



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To: GALE, R. E.

107 - 2274 FOLKESTONE WAY  
WEST VANCOUVER, BC  
V7S 2X7

Project: **AMY T CLAIM**  
Comments:

Page Number : 1-B  
Total Pages : 1  
Certificate Date: 25-MAY-95  
Invoice No. : 19517517  
P.O. Number :  
Account : CNF

## CERTIFICATE OF ANALYSIS

### A9517517

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25725	205	226	< 1	0.08	16	680	4	2	12	70	0.12	< 10	< 10	119	< 10	40

CERTIFICATION:

*Frank Buchler*



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Project: **AMY CLAIMS**  
Comments: ATTN: ROBERT E. GALE

Page Number : 1  
Total Pages : 1  
Certificate Date: 12-SEP-95  
Invoice No. : 19527577  
P.O. Number :  
Account : CNF

## CERTIFICATE OF ANALYSIS

A9527577

SAMPLE	PREP CODE	Au oz/T	Ag oz/T	Cu %	Pb %						
25737	208 226	0.002	0.66	8.30	-----	PICKED	CHALCOCITE	HI GRADE	-ABERDEEN	DUMP	

CERTIFICATION: *[Signature]*