GEOLOGICAL, GEOPHYSICAL AND GEOCHEMICAL REPORT

- on the -

G.G.3 - G.G.6 Claims
GERLE GOLD PROPERTY
Omineca Mining Division, British Columbia
N.T.S. 94D/15E, 16W

- for -

GERLE GOLD LTD.,
904 - 675 West Hastings St.,
VANCOUVER, B. C.

Prepared by;

G. BELIK AND ASSOCIATES LTD.,
664 Sunvalley Drive,
Kamloops, B. C.

Gary D. Belik, M. Sc.

March 1, 1983

Geological, Geophysical and Geochemical Report

- on the -

G.G.3 - G.G.6 Claims

Gerle Gold Property

Omineca Mining Division, British Columbia

N.T.S. 94D/15E, 16W

56°48' 126°27' TK

- for -

GERLE GOLD LTD.,

GEOLOGICAL BRANCH ASSESSMENT REPORT

11,092

Prepared by;

G. BELIK AND ASSOCIATES LTD.,

664 Sunvalley Drive,

Kamloops, B. C.

Gary D. Belik, M. Sc.

March 1, 1983

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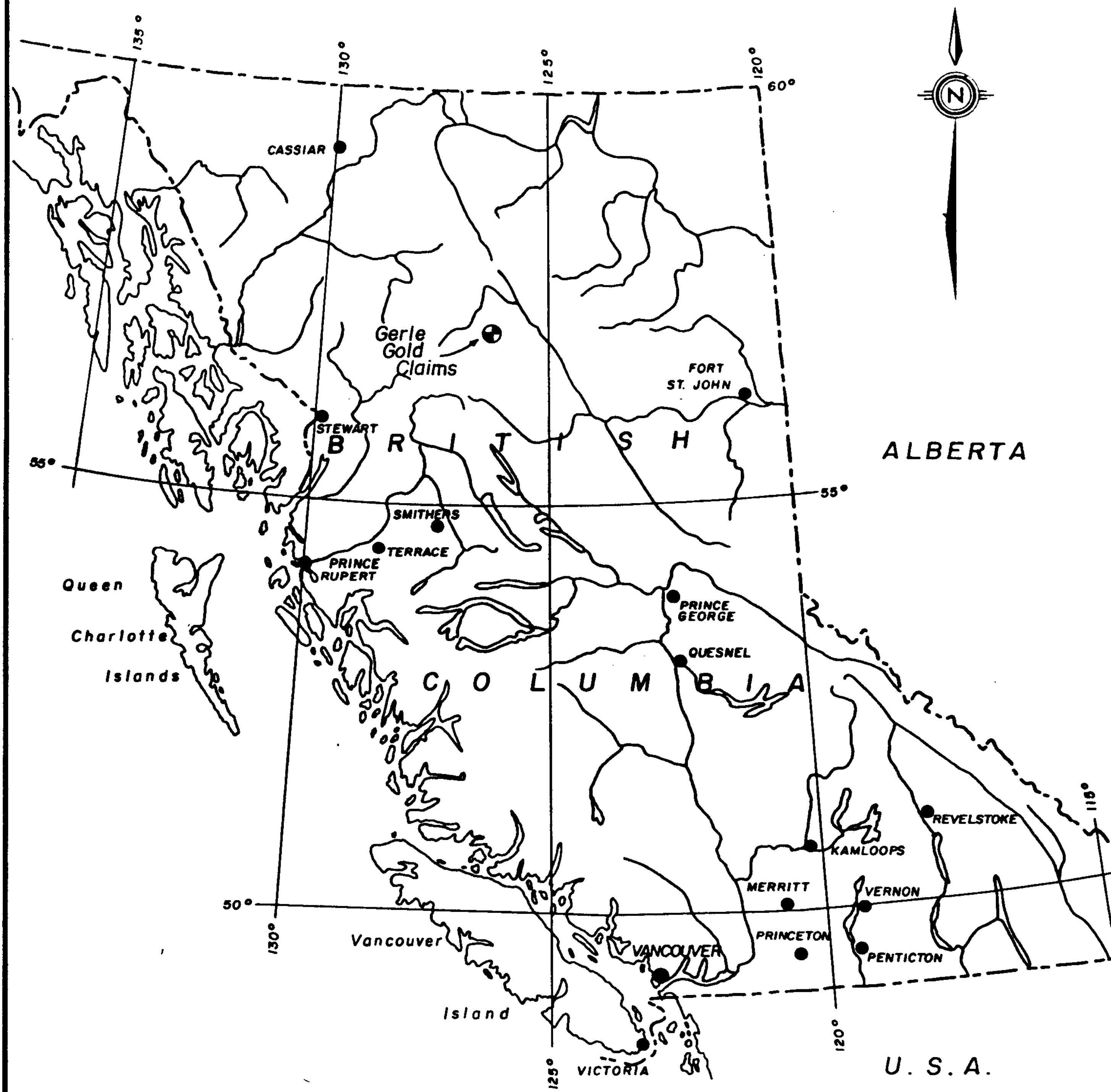
Introduction

During July 22 to July 30, 1982, reconnaissance geological mapping, silt sampling, soil sampling and 2.6 kms of ground V.L.F. - E.M. were completed on the G.G.3 to G.G.6 mineral claims situated near McConnell Creek in the Omineca Mining Division, British Columbia. Field work was supervised by G. Belik of G. Belik and Associates Ltd., 664 Sunvalley Dr., Kamloops, B. C.

The G.G.3 to G.G.6 claims are part of a 2700 hectare claim block, held by Gerle Gold Ltd. Within the central part of the claim area several shear zones, which locally contain significant zones of gold and silver mineralization, occur. These shear zones are hosted within an elongate, northwest-trending pendant of hornblende-rich gneiss which is bounded by granitic rocks of Middle to Upper Mesozoic age. The main shear zone is up to 20 meters wide and has been traced by a series of outcrops and shallow pits over a strike length exceeding 800 meters.

The 1982 program was carried out in order to evaluate the potential for similar shear zone - hosted gold deposits along the projected strike of the favourable gneiss unit, northwest of the main shear zone area.



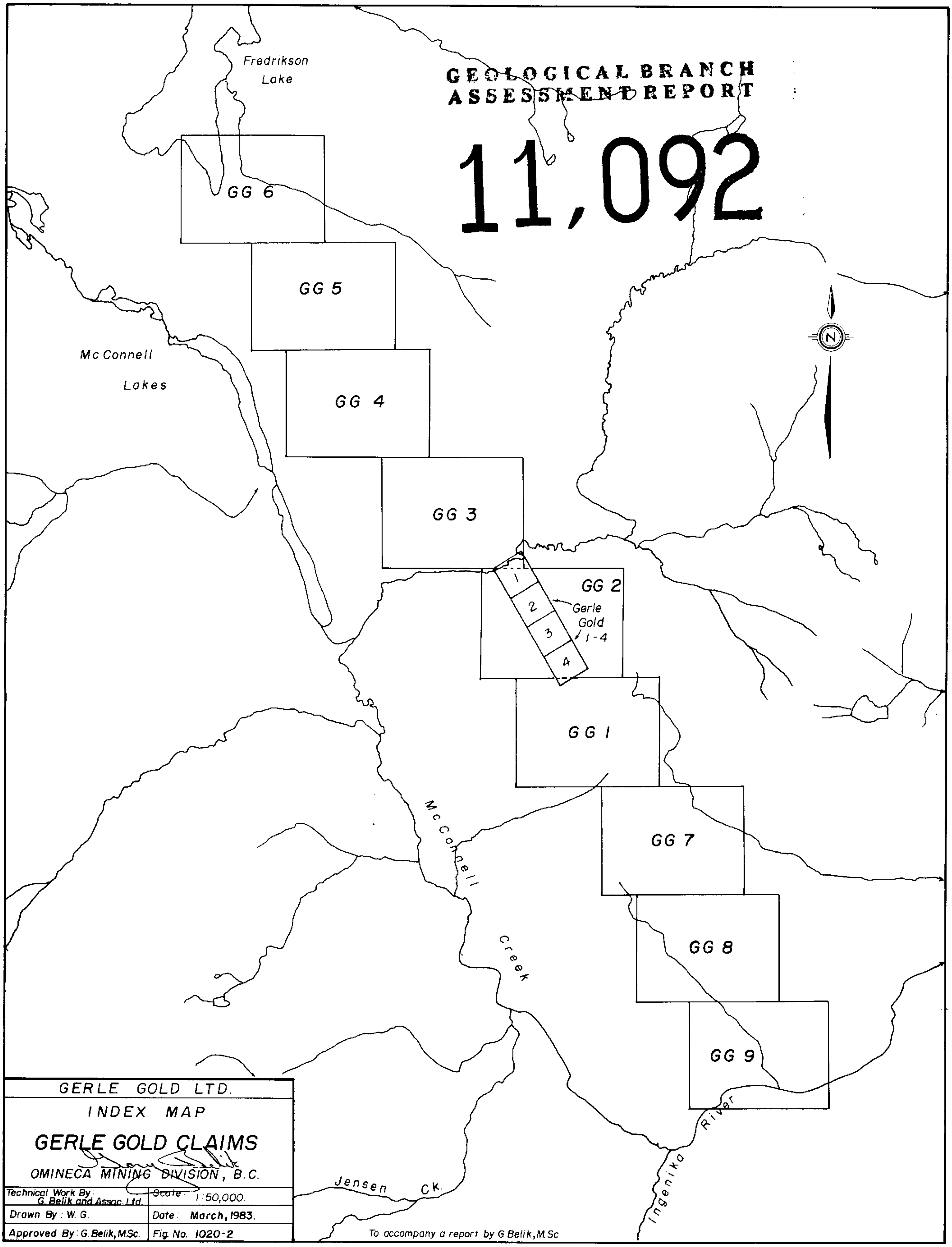
GERLE GOLD LTD.

LOCATION MAP

GERLE GOLD CLAIMS

OMINECA MINING DIVISION, B.C.

Technical Work by: G. Belik and Assoc. Ltd.	Date: March, 1983.
Scale: 1cm. = 87 km.	Dwg No. 1020-1


GEOLOGICAL BRANCH
ASSESSMENT REPORT
11,092
Fredrikson
Lake
Mc Connell
Lakes
GG 6
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GG 4
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1
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GERLE GOLD CLAIMS
OMINECA MINING DIVISION, B.C.
Technical Work By: G. Belik and Assoc. Ltd.
Scale: 1:50,000.
Drawn By: W. G.
Date: March, 1983.
Approved By: G Belik, M.Sc.
Fig. No. 1020-2
To accompany a report by G.Belik, M.Sc.

Location and Accessibility

The Gerle Gold property is located in the Omineca Mining Division, B. C., about 240 kms north-northwest of the town of Smithers. The center of the claim group is situated at geographic co-ordinates 56°48' North Latitude and 126°27' West Longitude.

Access to the property is by helicopter or fixed-wing from Smithers.

Claims

The property is comprised of 9 contiguous claims totalling 108 units and four 2-post claims as detailed below:

Mining Division	Claim	No. of Units	Record No.	Record Month
Omineca	Gerle Gold 1	2-post	94758	October
"	Gerle Gold 2	2-post	94759	"
"	Gerle Gold 3	2-post	94760	"
"	Gerle Gold 4	2-post	94761	"
"	G.G.1	12	3798	June
"	G.G.2	12	3799	"
"	G.G.3	12	3800	"
"	G.G.4	12	3801	"
"	G.G.5	12	4007	July
"	G.G.6	12	4008	"
"	G.G.7	12	4009	"
"	G.G.8	12	4010	"
"	G.G.9	12	4011	"

The above mineral claims are held by Gerle Gold Ltd., 904 - 675 West Hastings St., Vancouver, B. C., through an option agreement with J. H. Gerlizki and J. Leontowich.

Physiography and Vegetation

The Gerle Gold Property extends southeast from the south end of Fredrikson Lake to the Ingenika River, a distance of about 16 kms. Elevation of the property ranges from 1150 meters to 1800 meters. Relief is gentle to moderate.

Vegetation along the lower reaches of the Fredrikson Lake Valley consists primarily of good stands of spruce and balsam which are locally interspersed with spruce bogs along the valley floor. Forest cover is lighter above 1500 meters a.s.l. and above 1650 meters a.s.l. alpine-type vegetation prevails. Parts of the G.G.3, 4, 8 and 9 claims are covered by old burns.

General Geological Setting

The Gerle Gold Property encompasses an elongate, northwesterly-trending pendant of hornblende-rich gneiss. According to G.S.C. Open File 342 (T. Richards et al, 1975) the pendant is bounded on the east by the Early Cretaceous Jensen Peak Batholith and on the west by the Late Jurassic Fleet Peak Pluton.

Within the central part of the claim area the pendant contains several shear zones which locally host significant gold and silver mineralization. The main shear zone occurs within the Gerle Gold 1-4 claims and extends northwesterly, about 30 meters from and parallel to the eastern gneiss/intrusive contact. This zone is 5 m to 20 m wide and has been traced along a strike length exceeding 800 meters.

Within the shear zones the gneiss has been converted into buff-coloured to bright green carbonate schist and chlorite schist. The contact between schist and unaltered gneiss generally is gradational and marked by narrow zones of moderately to weakly sheared gneiss and/or chlorite schist. Locally the shear zones contain inclusions and lenses of weakly sheared to unaltered gneiss.

Limonitic, translucent to milky-white quartz is a common component of the main shear zone. Most of the quartz occurs as a series of en-echelon pods and lenses aligned parallel to the shear direction within the host unit. A few irregular quartz veins and veinlets cross-cutting the shear zone are also evident. Most quartz carries between 1% to 5% pyrite and locally up to 10% pyrite. Chalcopyrite commonly is present but generally in amounts less than 1%.

It is apparent from the sampling carried out to date that appreciable gold and silver values are restricted to quartz vein material. The auriferous zones are lenticular which is due to the primary distribution of quartz veins within the shear zones but also due to post-ore shearing which has segmented many of the mineralized veins into a series of en-echelon lenses. Some of these lenses are thickened along vertical to steep, northwesterly-plunging drag folds.

Previous Exploration

The main shear zone was discovered in 1947 by J. H. Gerlizki and J. Leontowich. Over the next few years they prospected this occurrence with a series of shallow pits and trenches, over a strike length of about 800 meters. In 1958 Centennial Mines Ltd. tested a small section of the zone with 12 shallow, X-ray holes with inconclusive results.

Between 1959 and 1980 only minor exploration was carried out.

In early 1981 the property was optioned by Gerle Gold Ltd. During June and July, 1981 the claim area was expanded to include the G.G.1-9 claims and in August, 1981, a preliminary exploration program consisting of grid preparation, detailed mapping, silt sampling and V.L.F.-E.M. and magnetic surveys were completed within the area of the known showings (Gerle Gold 1-4 and G.G.1, 2 and 7 claims). The results of this work are summarized in a report by the writer (Belik, 1981) which was filed for assessment credit.

1982 Program

The 1982 program, which included reconnaissance geological mapping, soil and silt sampling and 2.6 kms of V.L.F.-E.M., was carried out in order to evaluate the area northwest of the main shear zone along the projected strike extension of the favourable mafic gneiss unit. The area surveyed, which is covered by the G.G. 3-6 claims, extended northwest from Snowslide Creek to the south end of Fredrikson, a distance of 6.5 kms.

Reconnaissance Mapping

Reconnaissance geological mapping was completed utilizing air photos for control. Results of this survey are presented in Map 1020-5 at a scale of 1:15,000. Map 1020-5 also includes significant air photo features and the generalized geology southeast of Snowslide Creek (1981 survey area).

Mafic Gneiss Unit

The northwest extension of the mafic gneiss unit was confirmed. The unit was traced, intermittently, from Snowslide Creek through the southeast corner of the G.G.5 claim. Most exposures occur along northwest-trending ridges adjacent to a series of narrow swamps and draws which define a major air photo linear.

The mafic gneiss, which is relatively uniform in appearance, is composed of hornblende, plagioclase and epidote with variable but generally minor amounts of biotite and sericite. Hornblende is present in amounts between 50% and 80% and averages about 65%. Locally, the gneiss contains narrow interbeds of muscovite-biotite schist.

A prominent foliation, defined by the alignment of hornblende and mica and locally by subtle compositional banding is evident. Within the survey area this foliation strikes N20°W to N40°W with vertical to steep westerly or steep easterly dips.

Intrusive Rocks

The mafic gneiss unit is bounded by granitic rocks of diorite to granodiorite composition. In the southeast corner of the G.G.4 claim, adjacent to the mafic gneiss unit, the intrusive consists of a moderately well foliated diorite. Elsewhere within the map-area the intrusive consists of unfoliated, medium to coarsely crystalline quartz diorite and granodiorite.

Mineralization

No significant mineralization was encountered. Extensive areas along the projected strike of the favourable mafic gneiss unit, however, are totally concealed by overburden.

Angular, pyritic, quartz float was noted in the immediate vicinity of an old pit near the south end of Fredrikson Lake and quartz float with abundant pyrite and chalcopyrite was noted near the northwest corner of the G.G.4 claim. Samples from these areas returned low gold values.

Silt Geochemistry

In total 30 silt samples were taken during the 1982 program. All samples were analysed for gold by Acme Analytical Laboratories Ltd., located at 852 E. Hastings St., Vancouver, B. C.

Samples were obtained from near the center of stream beds. As fine a material as possible was obtained and placed in waterproof kraft envelopes. The sample number was marked on the envelopes with indelible felt pens.

All samples were first dried and then sieved to obtain a -80 mesh fraction. Prior to determining the gold values by Atomic Absorption, 10 gram samples were heated overnight to 600°C and then digested hot with aqua regia.

Results of the silt analyses are presented in plan map 1020-6 at a scale of 1:15,000.

Discussion of Results

Most creeks draining the survey area show only background values for gold. Two low order anomalies (70 ppb and 95 ppb) were obtained near the southeast corner of the G.G.3 claim.

Soil Geochemistry

During the 1982 program, 66 soil samples were collected along 5 reconnaissance lines. A sample interval of 50 meters generally was maintained.

Samples were obtained by digging holes with a maddock to a depth of 10 cm to 20 cm. The "B" horizon was sampled or in some cases the "B-C" horizon depending on soil development at each sample location. The samples were placed in waterproof kraft envelopes and the grid station was marked on the envelopes with an indelible-ink felt pen.

All samples were analysed for gold (Atomic Absorption) by Acme Analytical Laboratories in Vancouver. Results are presented in map 1020-6.

Discussion of Results

Background values for gold within the area surveyed are low and range from 5 ppb to 30 ppb. Three, isolated, highly anomalous values were obtained. These include: 285 ppb (Line 0, Fredrikson Lake); 580 ppb (Line 1N, Snowslide Creek) and 585 ppb (Line 2N, Snowslide Creek).

The anomalous values, which occur along the projected strike of the mafic gneiss unit, could reflect significant zones of gold mineralization similar to the shear zone - related occurrences to the southeast.

V.L.F. Electromagnetic Survey

Four lines, totalling 2.6 kilometers, were surveyed by V.L.F.-E.M. The station interval was 25 meters.

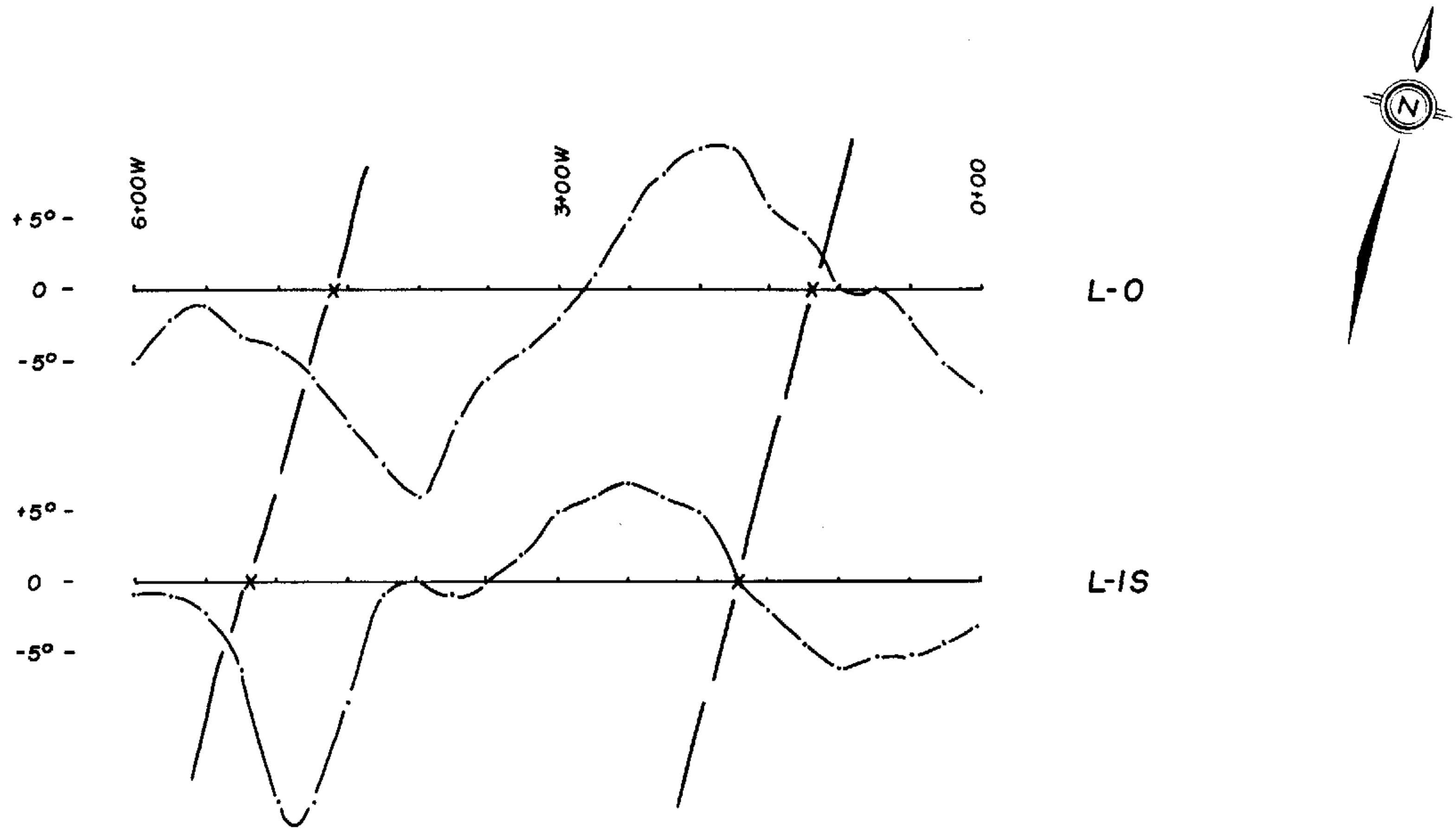
The electromagnetic survey was carried out utilizing a Saber Model 27 VLF-E.M. receiver manufactured by Saber Electronic Instruments Ltd., 4245 East Hastings Street, Vancouver, B. C. The instrument measures the relative strength and dip of electromagnetic fields transmitted by radio stations in the 15-25 kH_z range. These 'primary fields' are horizontal but can be disrupted by the presence of electrical conductors and by local topographic relief. Disruptions caused by conductors are caused by 'secondary fields' which are induced by the primary field. The tilt of the secondary field can be obtained by measuring the angle of null (minimum signal) in a vertical plane, normal to the wave front of the primary field.

For this survey the transmitting station utilized is located at Seattle, Washington (24.8 kH_z). The dip angles and relative field strength values obtained during the survey are listed in Appendix III. Drawings 1020-3 and 1020-4 are profiles of the dip angle data.

Discussion of Results

On Line 0 and Line 1S, south of Fredrikson Lake, two parallel northerly-trending conductors have been identified within a large overburden - covered area. These conductors, which occur along the projected strike of the mafic gneiss unit, are of probable bedrock origin and could reflect conductive faults or shear zones. On Line 0 the west conductor correlates with a gold soil anomaly.

On Line 0 and Line 1N, Snowslide Creek area, conductors identified are weak and may be of surficial origin. A bedrock source, however, cannot be ruled out.



1cm, VERTICAL = 5° IN PHASE TILT

X CROSS-OVER

Tx : SEATTLE, WA (24.8 KHz)

–X– CONDUCTOR AXIS

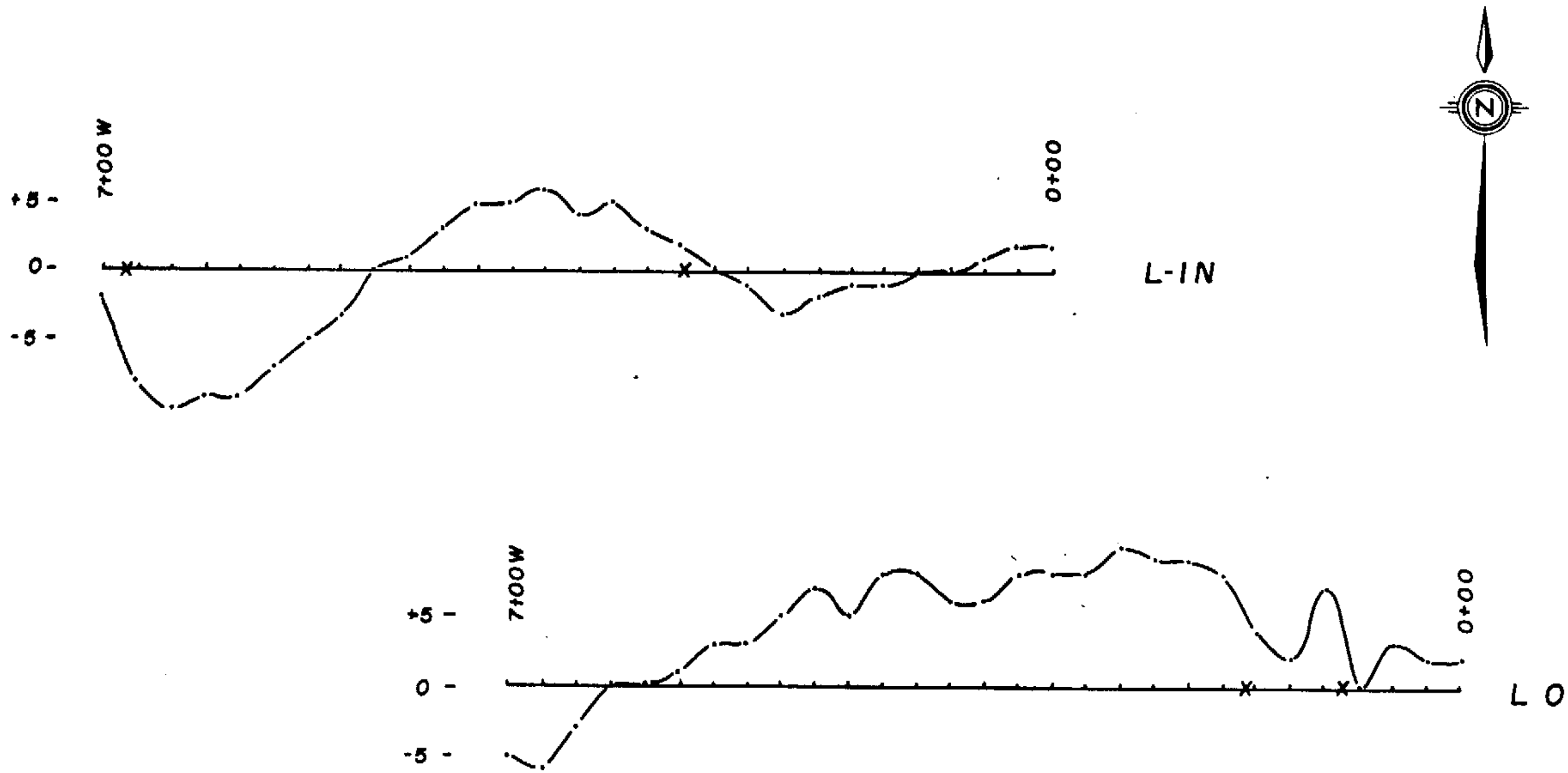
GERLE GOLD LTD.

G. G. CLAIMS

VLF - E.M. PROFILES

FREDRICKSON LAKE

Tech. Work By : G. Belik and Assoc. Ltd.	Scale : 1:5,000
Date : Mar. 1983	Fig. No. 1020 - 3



1cm, VERTICAL = 5° IN PHASE TILT

X CROSS-OVER

Tx : SEATTLE, WA (24.8 KHz)

GERLE GOLD LTD.	
G. G. CLAIMS VLF - E.M. PROFILES SNOWSLIDE CREEK	
Tech. Work By: G. Belik and Assoc. Ltd.	Scale: 1:5,000
Date: Mar. 1983	Fig. No. 1020-4

Conclusions and Recommendations

On the Gerle Gold 1-4 claims a pendant of hornblende-rich gneiss hosts significant zones of gold mineralization within a northwest-trending shear zone. A potential for similar deposits within the area of the G.G.3 - 6 claims is indicated; this area is underlain by the same gneiss unit and preliminary reconnaissance surveys carried out over parts of this area in 1982 have identified several potentially significant conductors and, locally, soils anomalous in gold.

Further work is warranted. The initial phase of this work should include detailed, grid-controlled, soil sampling and V.L.F.-E.M. and magnetic surveys. Grid lines should be spaced at a maximum interval of 200 meters along the entire projected strike of the favourable gneiss unit.

Targets defined by Phase I could be evaluated by trenching (Phase II) and then drilling (Phase III) if warranted.

Respectfully submitted;

G. BELIK AND ASSOCIATES LTD.,

Gary D. Belik, M. Sc.
GEOLOGIST.

Kamloops, B. C.
March 1, 1983

REFERENCES

Annual Minister of Mines Report : 1947 p A109 - A110

Ball, C. W., : 1958 — Report of Work Completed in 1958 (Gerle Gold Claims); -unpublished

Belik, G. D., : 1981 — Geological, Geophysical and Geochemical Report on the Gerle Gold Property; -unpublished

Lord, C.S., : 1948 — McConnell Creek Map-Area; Cassiar District, B.C.; Geol. Surv. Canada, Memoir 251

Payne, J. G., : 1975 — Summary Report on the Gerle Gold Property; -unpublished

Richards, T., et al, : 1975 — McConnell Creek Map-Area, (94D/E); Geol. Surv. Canada, O.F. 342.

APPENDIX I

Assay Certificates

ACME ANALYTICAL LABORATORIES LTD.
Assaying & Trace Analysis
852 E. Hastings St., Vancouver, B.C. V6A 1R6
phone:253 - 3158

To: G. Belik & Associates Ltd.,
#206 - 310 Nicola St.,
Kamloops, B.C.

File No. 82-0765
Type of Samples Soils
Disposition

GEOCHEMICAL ASSAY CERTIFICATE

Gerle Gold

SAMPLE No.				PPb Au	
SN	0	0	W	5	1
		0+50		25	2
		1		5	3
		1+50		30	4
		2		5	5
		2+50		5	6
		3		5	7
		3+50		15	8
		4		5	9
		4+50		5	10
		5		10	11
		5+50		5	12
		6		5	13
		6+50		5	14
SN	0	7	W	5	15
					16
SN	1N	0	W	5	17
		0+50		5	18
		1		5	19
		1+50		15	20
		2		15	21
		2+50	miss		22
		3		10	23
		3+50		5	24
		4		10	25
		4+50		10	26
		5		5	27
		5+50		580	28
		6		5	29
SN	1N	6+50W		5	30
					31
SN	2N	0	W	10	32
		0+50		5	33
		1		5	34
		1+50		15	35
		2	miss		36
		2+50	miss		37
		3		15	38
		3+50		10	39
SN	2N	4	W	585	40

All reports are the confidencial property of clients
All results are in PPM.
DIGESTION:
DETERMINATION:

DATE SAMPLES RECEIVED Aug. 6, 1982
DATE REPORTS MAILED Aug. 12, 1982
ASSAYER D. Toye

DEAN TOYE, B.Sc.
CHIEF CHEMIST
CERTIFIED B.C. ASSAYER

ACME ANALYTICAL LABORATORIES LTD.
Assaying & Trace Analysis
852 E. Hastings St., Vancouver, B.C. V6A 1R6
phone:253 - 3158

To: G. Belik & Associates Ltd.,

File No. 82-0765
Type of Samples Soils
Disposition

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE No.				PPb Au
SN	2N	4+50W		5
		5		5
		5+50		25
		6		5
		6+50		5
		7	miss	
		7+50	miss	
SN	2N	8 W		5
FL	0	0 W		5
		0+50		5
		1		5
		1+50		5
		2		5
		2+50		5
		3		5
		3+50		5
		4		5
		4+50		285
		5		5
		5+50		5
FL	0	6 W		5
FL	1S	0 W		5
		0+50		10
		1		5
		1+50		5
		2		5
		2+50		5
		3		5
		3+50		5
		4		30
		4+50	miss	
		5		5
		5+50		10
FL	1S	6 W		5

All reports are the confidencial property of clients
All results are in PPM.

DIGESTION:

DETERMINATION:

DATE SAMPLES RECEIVED Aug. 6, 1982
DATE REPORTS MAILED Aug. 12, 1982
ASSAYER D. Toye

DEAN TOYE, B.Sc.
CHIEF CHEMIST
CERTIFIED B.C. ASSAYER

ACME ANALYTICAL LABORATORIES LTD.
Assaying & Trace Analysis
852 E. Hastings St., Vancouver, B.C. V6A 1R6
phone: 253 - 3158

To: G. Belik & Associates Ltd.,

File No. 82-0765
Type of Samples Silts & Rocks
Disposition

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE No.		PPb Au
82 BG-SL- 1		5
2		5
3		5
4		25
5		5
6		5
7		10
8		5
9		95
10		5
11		5
12		5
13		70
14		5
15		5
16		5
17		5
18		5
19		5
20		5
21		10
22		5
23		5
24		15
25		5
26		5
27		5
28		5
29		5
82 BG-SL-30		5
82 GB- 1	R	5
2	R	45
82 GB- 3	R	5
82 BG- 4	R	85
5	R	300
82 BG- 6	R	5

All reports are the confidencial property of clients
All results are in PPM.
DIGESTION:......
DETERMINATION:......

DATE SAMPLES RECEIVED Aug. 6, 1982
DATE REPORTS MAILED Aug. 12, 1982
ASSAYER [signature]

DEAN TOYE, B.Sc.
CHIEF CHEMIST
CERTIFIED B.C. ASSAYER

APPENDIX II

Rock Sample Descriptions

Rock Sample Descriptions

82BG-1	-40 kgm float boulder of milky white quartz with traces of pyrite; angular to subrounded; locally chloritic.
82BG-2	-8 kgm subangular float boulder of rusty quartz; pyritic with 1% chalcopyrite; a few vugs.
82BG-3	-Milky white quartz vein 5 cm - 15 cm wide; oriented $13^{o}/74^{o}E$
82BG-4	-Narrow quartz vein with traces of pyrite.
82BG-5	-Angular quartz float with abundant pyrite and arsenopyrite (?).
82BG-6	-Angular float boulder of white quartz.

APPENDIX III

V.L.F. - E.M. Data

VLF – EM SURVEY

PROJECT GERLE GOLD PAGE 1
GRID FREDRICKSON LAKE DATE JULY 27/82
LINE L0 OPERATOR G. BELIK
SOURCE STATION

STATION	~~OUT OF PHASE~~ FIELD STRENGTH	IN PHASE	FRASER FILTER		REMARKS
6+00W	55	-5°			FLAT AREA
	55	-2	-7		"
	56	-1	-3	-	"
	53	-3	-4	4	"
5+00W	60	-4	-7	6	"
	62	-6	-10	8	"
	61	-9	-15	11	"
	53	-12	-21	11	"
4+00W	51	-14	-26	2	"
	49	-9	-23	-	"
	48	-6	-15	-	DRUMLIN
	48	-4	-10	-	CREEK
3+00W	48	-2	-6	-	FLAT AREA
	47	+1	-1	0	"
	50	+5	+6	-	"
	51	+8	+13	-	"
2+00W	54	+10	+18	-	GENTLE WEST SLOPE
	56	+10	+20	2	"
	61	+6	+16	10	"
	65	+4	+10	12	FLAT
			+4	10	

VLF – EM SURVEY

PROJECT GERLE GOLD PAGE 3
GRID FREDRICKSON LAKE DATE JULY 27/82
LINE 1+00 S OPERATOR G. BELIK
SOURCE STATION SEATTLE

STATION	~~OUT OF PHASE~~ FIELD STRENGTH	IN PHASE	FRASER FILTER		REMARKS
6+00W	56	-1			FLAT
	57	-1	-2		"
	60	-2	-3	6	"
	64	-6	-8	18	"
5+00W	62	-15	-21	22	SWAMP
	53	-15	-30	2	DRUMLIN
	46	-8	-23	-	SWAMP
	46	-1	-8	-	"
4+00W	48	0	-1	-	FLAT
	48	-1	-1	0	"
	43	0	-1	-	"
	41	+2	+2	-	"
3+00W	42	+5	+7	-	"
	43	+6	+11	-	"
	44	+7	+13	-	"
	48	+6	+13	2	"
2+00W	50	+5	+11	8	"
	53	0	+5	13	"
	53	-2	-2	11	"
	50	-4	-6	8	"
			-10	5	

VLF – EM SURVEY

PROJECT GERLE GOLD PAGE 5
GRID SNOWSLIDE CK DATE JULY 28/82
LINE L 0+00 OPERATOR G. BELIK
SOURCE STATION SEATTLE

STATION	~~OUT OF PHASE~~ FIELD STRENGTH	IN PHASE	FRASER FILTER		REMARKS
			-		
7+00W	37	-5			
	34	-6	-2		
	32	-3	-6	1	
	31	0	-3	-	
6+00W	31	0	0	-	
	31	+1	+1	-	
	32	+2	+4	-	
	33	+3	+6	-	
5+00W	33	+5	+8	-	
	34	+7	+12	-	
	35	+5	+12	-	
	36	+8	+13	-	
4+00W	37	+8	+16	-	
	37	+6	+14	4	
	38	+6	+12	0	
	40	+8	+14	-	
3+00W	40	+8	+16	-	
	40	+8	+16	-	
	42	+10	+18	-	
	42	+9	+19	0	
			+18	2	

VLF – EM SURVEY

PROJECT GERLE GOLD PAGE 7
GRID SNOWSLIDE CK DATE JULY 28/82
LINE L 11+00W OPERATOR G. BELIK
SOURCE STATION SEATTLE

STATION	~~OUT OF PHASE~~ FIELD STRENGTH	IN PHASE	FRASER FILTER		REMARKS
7+00W	50	-2			SWAMP
	50	-8	-10		"
	44	-10	-18	1	"
	42	-9	-19	0	
6+00W	40	-9	-18	-	
	38	-7	-16	-	
	38	-5	-12	-	
	37	-3	-8	-	
5+00W	37	0	-3	-	
	37	+1	1	-	LULAR FLOAT (GNEISS)
	36	+3	4	-	
	36	+5	8	-	
4+00W	37	+5	10	-	
	37	+6	11	0	OUTCROP (GNEISS)
	39	+4	10	2	
	39	+5	9	2	
3+00W	38	+3	8	4	
	40	+2	5	6	
	40	0	2	6	
	40	-1	-1	6	
			-4	4	

VLF – EM SURVEY

PROJECT ______ PAGE *2*

GRID *Fredrickson Lake* DATE ______

LINE *L0* OPERATOR ______

SOURCE STATION ______

STATION	OUT OF PHASE	IN PHASE	FRASER FILTER		REMARKS
1+00W	66	0°			FLAT
	64	0	0	6	"
	62	-2	-2	7	"
	64	-5	-7	10	"
0+00	64	-7	-12		"

VLF – EM SURVEY

PROJECT ______ PAGE *4*

GRID *Fredrickson Lake* DATE ______

LINE *1+00 S* OPERATOR ______

SOURCE STATION ______

STATION	OUT OF PHASE	IN PHASE	FRASER FILTER		REMARKS
1+00W	50	-6			FLAT
	48	-5	-11	0	"
	46	-5	-10	–	"
	46	-4	-9	–	"
0+00	47	-3	-7		"

VLF – EM SURVEY

PROJECT ______ PAGE *6*

GRID *Snowslide Ck* DATE ______

LINE *0+00* OPERATOR ______

SOURCE STATION ______

STATION	OUT OF PHASE	IN PHASE	FRASER FILTER		REMARKS
2+00W	45	+9			
	48	+8	+17	6	
	52	+4	+12	11	
	53	+2	+6	3	
1+00W	50	+7	+9	–	
	54	0	+7	6	
	56	+3	+3	2	
	53	+2	+5	–	
0+00	58	+2	+4		

VLF – EM SURVEY

PROJECT ______ PAGE *8*

GRID *Snowslide* DATE ______

LINE *1+00N* OPERATOR ______

SOURCE STATION ______

STATION	OUT OF PHASE	IN PHASE	FRASER FILTER		REMARKS
2+00W	38	-3			
	37	-2	-5	–	
	37	-1	-3	–	
	36	-1	-2	–	
1+00W	35	0	-1	–	
	36	0	0	–	
	35	+1	1	–	
	35	+2	3	–	
0+00	35	+2	4	–	

APPENDIX IV

Sabre Model 27 V.L.F.-E.M. Receiver

SABRE ELECTRONIC
INSTRUMENTS LTD.

4245 EAST HASTINGS STREET • BURNABY, B.C. V5C 2J5 • TELEPHONE: 291-1617

SABRE MODEL 27 VLF-EM RECEIVER

The model 27 EM unit was designed originally for a large Canadian mining company to overcome the deficiencies inherent in existing units.

The instrument is so stable and selective that completely reliable measurements can be made on distant stations without interference from nearby powerful transmitters. Stability and selectivity are especially important when making field-strength measurements, which are now being emphasized as a means of locating conductors.

This EM receiver is very compact, requires no earphones or loudspeakers and is housed in a heavy scotch saddle leather case. All of these features add up to make an ideal one-man EM unit of unexcelled electrical performance and mechanical ruggedness.

SPECIFICATIONS -

Source of Primary Field - VLF radio stations (12 to 24 KHz.)

Number of Stations - 4, selected by switch; Cutler, Main on 17.8 KHz. and Seattle, Washington on 18.6 KHz. are standard, leaving 2 other stations that can be selected by the user.

Types of Measurement

1. Dip angle in degrees, read on a meter-type inclinometer with a range of $\pm 60^{o}$ and an accuracy of $\pm \frac{1}{2}^{o}$.
2. Field strength, read on a meter and a precision digital dial with an accuracy exceeding 1%.
3. Out of phase component, read on the field strength meter as a residual reading when measuring the dip angle.

VLF-EM OPERATING INSTRUCTIONS

The equipment is operated in the usual way as follows:

1. With the instrument held horizontal in front of you, turn around until a null appears on the field strength meter. You should now be facing the station.

2. With the receiver still facing the station, lift it to the vertical position and rotate it slightly in the vertical plane to your right or left until the best null appears on the field strength meter. Record the angle on the inclinometer at which the null appears. This is the DIP ANGLE (Positive or negative).

3. Return the instrument to the horizontal plane and turn around until the field strength meter is at its maximum reading. Set this maximum reading at 100 on the meter and record the reading on the gain control dial. This is the Field Strength Reading.

4. Repeat steps 1, 2 and 3 at each station.

5. To test the batteries turn the power switch on and push the test button. The field strength meter should read above the red mark. Battery life is approximately 200 hours and if the instrument is turned off between readings, the batteries should last for an entire season.

NOTE: An alternative way of measuring field strength is as follows:

Proceed as in step 3, setting the meter to 100. Now push the field strength button (marked FS) and the meter will read 50. (If it doesn't, adjust the gain control slightly). Leave the Gain Control setting where it is and take comparative Field Strength readings at each station by pressing the Field Strength button and recording the meter reading, which will vary from its Base Station Reading as you pass over conductive zones.

Dimensions and Weight

Approx. 9½" x 2½" x 8½"; Weighs 5 lbs.

Batteries

8 alkaline penlite cells. The instrument will run continuously on 1 set of batteries for over 200 hours; So that in normal on-off use, the batteries will last all season. The battery condition under load is shown by pushing a button and reading voltage on the field strength meter.

SELECTION OF STATIONS:

The stations are selected by the switch on the control panel, with the following abbreviations being used;

C = Cutler, Maine. Frequency = 17.8 Khz.
S = Seattle, Wash. Frequency = 18.6 Khz.
A = Annapolis, Md. Frequency = 21.4 Khz.
H = Hawaii. Frequency = 23.4 Khz.

The two most useful stations are Cutler and Seattle and these will be used almost exclusively. Note that Seattle is off the air for several hours on Thursdays for maintenance (between 10 A.M. and 2 P.M. usually). Cutler is off the air for the same length of time every Friday.

If Equipment fails to operate:

(a) Check that station is transmitting (see above). If one station appears to be dead, check another one to see if it is operating normally.

(b) Check batteries. If they read low or the reading begins to drop after the test button is held down for a few seconds, replace them. Note also that there are 8 batteries in the instrument and they cannot be individually checked by the test button. If the batteries have been in the unit for a long time it is possible that one is dead or very weak but that the total voltage indicated by the test button is near normal. It is cheap insurance to instal new batteries before starting a big survey.

(c) If unit still fails to operate check that battery connectors are tight, then check wiring of battery connectors for breaks or damage.

DETAILED

OPERATING INSTRUCTIONS
SABRE VLF-EM RECEIVER

INTRODUCTION:

The VLF-EM method utilizes electromagnet field transmitted from radio stations in the 15-25 K Hz range. The signals are propagated with the magnetic component of the field being horizontal in undisturbed areas.

Conductivity contrasts in the earth create secondary fields, producing a vertical component and changes in the field strength or amplitude. These conductive areas may be located, and to a degree, evaluated by measuring the various parameters of this electromagnetic field.

The Sabre VLF-EM receiver is tuned to receive any 4 transmitter stations: usually C-Cutler Maine, S-Seattle, H-Hawaii and P-Panama.

The station used in the survey should be selected so that the direction of the signal is roughly perpendicular to the direction of the grid lines which, in turn, should be laid out perpendicular to the regional strike.

MEASUREMENTS:

The Sabre VLF-EM receiver can be used to measure the following characteristics of the VLF field.

(a) Tilt angle of resultant field;

(b) Field strength of (a) horizontal component of field
(b) vertical component of field

Field Procedure

The following procedure should be followed to measure the dip angle of null and the field strength of the horizontal component of the VLF field.

Initial Field Strength Adjustment

Adjust the gain control to provide a suitable relative field strength measurement, as follows:-

(a) hold receiver in horizontal position (meter faces horizontal) and rotate in a horizontal plane until a null is indicated on the F.S. meter; rotate 90° in this horizontal plane (F.S. meter reads maximum)

(b) adjust fain control so that the F.S. meter reads 100

(c) record gain control setting (000 to 999). Close guard over gain control and do not readjust unless a major field strength occurs.

The above procedure should be carried out at the beginning of each day's survey and checked during the day.

Dip Angle Measurement Procedure

1. Hold receiver in horizontal position and rotate in the horizontal plane until a null is observed. This aligns receiver in the field and the operator should be facing southerly or easterly depending on transmitter location.

2. Bring receiver up to the vertical position (meter faces vertical) and rotate the receiver in the vertical plane perpendicular to the transmitter direction until a null or minimum reading is observed on the field strength meter.

3. Hold the receiver in this field strength null position and read the inclinometer in degrees. Record this dip angle of null along with sign (+ or -).

Horizontal Field Strength Measurement Procedure

1. Return receiver to the horizontal position.
2. Reestablish null bearing in horizontal plane.
3. Rotate receiver 90° in the horizontal plane.
4. Depress ~~damp~~ F.S. push button switch and observe field strength meter reading for sufficient time to obtain an average F.S. meter reading. (depressed ~~damp~~ F.S. switch slows needle action and reduces meter reading by half. The reading will normally range around 50).
5. Record F.S. reading.

APPENDIX V

Statement of Expenditures

Statement of Expenditures

A.	LABOUR:		
	G. Belik, M. Sc., -9.0 days (July 22 - 30) @ $250./day	$2,250.	
	R. Henderson, assistant; -9.0 days (July 22 - 30) @ $140./day	1,260.	
			$3,510.00
B.	SUPPORT AIRCRAFT:		
	-helicopter transportation;		3,516.83
C.	TRUCK RENTAL:		
	-1915 kms at .35¢/km.		670.25
D.	FOOD AND ACCOMMODATION:		450.52
E.	GEOCHEMICAL ANALYSES:		445.50
F.	EQUIPMENT RENTAL:		
	-V.L.F. E.M. Unit		90.00
G.	FREIGHT:		11.85
H.	REPORT PREPARATION:		1,400.00
		TOTAL	$10,094.95

APPENDIX VI

Statement of Qualifications; G. D. Belik

GARY D. BELIK, M.Sc.
Consulting Geologist
Mineral Exploration

664 SUNVALLEY DRIVE, KAMLOOPS ,B.C. V2B 6S4 V2C 2P5 • PHONE (604) 374-4247

CERTIFICATE

I, GARY D. BELIK, OF THE CITY OF KAMLOOPS, BRITISH COLUMBIA, DO HEREBY CERTIFY THAT:

(1). I am a member of the Canadian Institute of Mining and Metallurgy, and a fellow of the Geological Association of Canada

(2). I am employed by G. Belik and Associates Ltd., with my office at 664 Sunvalley Drive, Kamloops, B. C.

(3). I am a graduate of the Universtiy of British Columbia, with a B.Sc. in Honors Geology and a M. Sc. in Geology.

(4). I have practised continuously as a geologist since May, 1970.

(5). This report is based on a study of all available data, published and unpublished reports, and my examination of the G.G. 3 - 6 claims from July 22 - July 30, 1982.

(6). Permission is hereby granted to Gerle Gold Ltd. to use this report for financing purposes, and to satisfy requirements of the Securities Commission, the Stock Exchange, and the B. C. Ministry of Mines.

Gary D. Belik, M. Sc.
GEOLOGIST.

KAMLOOPS, B. C.

March 1, 1983


Fredrickson Lake
GG 6
LINE 0
LINE 1S
Mc Connell Lake
SL 25(5)
SL 26(5)
SL 24(5)
SL 27(5)
SL 28(5)
GG 5
SL 23(5)
SL 22(5)
SL 18(5)
SL 21(10)
SL 19(5)
SL 20(5)
SL 29(5)
GG 4
SL 2(5)
SL 1(5)
LINE 2N
SL 17(5)
GG 3
LINE 1N
SL 3(5)
SL 30(5)
SL 16(5)
SL 15(5)
SL 14(5)
LINE 0
SL 13(70)
SL 4(20)
SL 12(5)
SL 11(5)
SL 5(5)
SL 6(5)
SNOWSLIDE
CREEK
GERLE GOLD 1
GERLE GOLD 2
GG 1
GERLE GOLD 3
GERLE GOLD 4
Mc Connell Cr.
GG 2
SYMBOLS
CREEK
LAKE
CLAIM BOUNDARY
GRID LINE
SILT SAMPLE LOCATION WITH SAMPLE NO. AND GEOCHEMICAL VALUE FOR GOLD IN PARTS PER BILLION (PPB).
SOIL SAMPLE LOCATION WITH GEOCHEMICAL VALUE FOR GOLD IN PPB.
SOIL SAMPLE WITH ANOMALOUS GOLD
SILT SAMPLE WITH ANOMALOUS GOLD
GEOLOGICAL BRANCH
ASSESSMENT REPORT
11,092
GERLE GOLD LTD.
SILT & SOIL SAMPLE LOCATIONS
1982 PROGRAMME
OMINECA MINING DIVISION, B.C.
TECH. WORK BY: G. BELIK AND ASSOC. LTD.
SCALE: 1:15,000 (APPROX.)
DRAWN BY:
DATE: MARCH, 1983.
APPROVED BY: G. BELIK, M.Sc.
FIG. NO. 1020-6
To accompany a report by G. Belik, M.Sc.

Fredrickson Lake
PYRITIC QUARTZ FLOAT WITH ARSENOPYRITE 82 BG-5(300)
Deep Drift
Sparse Outcrop
McConnell Lake
GRAVEL WASH
PROBABLE MAJOR FAULT
Broad Low
HANGING VALLEY
Sparse Outcrop
82 BG-6(5)
82 BG-1(5)
82 BG-2(45)
Sparse Outcrop
THICK DRIFT - PRINCIPALLY GRAVEL WASH AND ESKERS
CANYON WITH OUTCROP
82 BG-3(5)
THICK DRIFT ABUNDANT ESKERS
FAN
THICK DRIFT ABUNDANT ESKERS
CABIN
FAN
Trace of Main Shear Zone
Sparse Outcrop
THICK GRAVEL TERRACE
McConnell Cr.
Sparse Outcrop
THICK GRAVEL TERRACE
Sparse Outcrop
POSSIBLE OUTCROP
Ingenika River
GEOLOGICAL BRANCH ASSESSMENT REPORT
11,092
SYMBOLS
CREEK
LAKE
MAJOR LINEAMENT (PROBABLE FAULT)
SIGNIFICANT LINEAMENT (POSSIBLE MINOR FAULT OR ZONE OF PROMINENT FRACTURING)
MINOR LINEAMENT (FRACTURES, JOINTS ETC.)
AREA WITH ABUNDANT OUTCROP
AREA OF THICK DRIFT
ESKER
SCARP
INTERPRETED GEOLOGICAL CONTACT
FOLIATION; INCLINED, VERTICAL
QUARTZ FLOAT
82 BG-5 ROCK SAMPLE LOCATION
(300) PPB Au
LITHOLOGIES
A QUARTZ DIORITE, GRANODIORITE, MINOR DIORITE
B HORNBLENDE GNEISS, BIOTITE-HORNBLENDE GNEISS; MINOR BIOTITE-MUSCOVITE SCHIST.
GERLE GOLD LTD.
GERLE GOLD PROPERTY
GENERALIZED GEOLOGICAL PLAN
OMINECA MINING DIVISION, B.C.
TECH. WORK BY: G. BELIK AND ASSOC. LTD.
SCALE: 1:15,000 (APPROX.)
DRAWN BY:
DATE: MARCH, 1983.
APPROVED BY: G. BELIK, M.Sc.
FIG. NO. 1020-5
To accompany a report by G. Belik, M.Sc.