

**GEOPHYSICAL
ASSESSMENT REPORT
L CLAIM GROUP
KAMLOOPS & CLINTON MINING DIVISIONS
July 31, 1996** **M. S. Morrison, B.Sc.**

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GEOPHYSICAL
ASSESSMENT REPORT

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORTS

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L CLAIM GROUP
CLINTON AREA

KAMLOOPS AND CLINTON MINING DIVISIONS

by

MURRAY S. MORRISON, B.Sc.

CLAIMS:

L 1-14, J 2-4 (17 units)

LOCATION:

The L Claim Group is situated on Hart Ridge,
12 km southeast of Clinton, B.C.

Lat. 51°00'; Long. 121°30';

N.T.S.: 92-P-3W & 4E

92-I-13E & 14W

OWNER:

M. S. Morrison

OPERATOR:

M. S. Morrison

DATE STARTED:

May 5, 1996

DATE COMPLETED:

May 9, 1996

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

Kelowna, B.C.

July 31, 1996

24,675

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SUMMARY

The L Claim Group, owned by the writer, is located on Hart Ridge, immediately north of Highway 97, 23 km northwest of Cache Creek, B.C. The property, comprised of 17 mineral claims, covers a succession of Premian Age Cache Creek Group metasediments that strike northwest and dip moderately to steeply southwest.

Immediately north of the highway a large (700 metre by 50 metre) interbed of mafic tuff has been selectively replaced by quartz, carbonate and mariposite. Locally, the replacement zone has been disrupted by faulting and mended with late quartz, ankerite and dolomite veinlets. The rock contains anomalous values of arsenic (up to 1155 parts per million) and antimony (up to 16 ppm).

Two kilometres northwest of the Highway Showing a drill hole drilled by Cordilleran Engineering on the Paw/Ranger mineral claims of Peyto Oil Ltd. in 1973 returned 15 grams of gold per ton from a 3 metre intersection of quartz-carbonate replaced rock. A program of follow-up drilling conducted by Cordilleran Engineering in 1974 failed to locate the gold-bearing quartz-carbonate unit in three widely-spaced drill holes drilled between the 1973 discovery hole and the Highway Showing.

A review of the 1973 and 74 data by the writer in 1985 suggested that the 1974 follow-up drill holes may have all been drilled too far to the east to intercept the gold-bearing unit. In February of 1985 a VLF-EM 16 survey was conducted by the writer in an attempt to trace graphitic argillite units of the Cache Creek Group across the drift covered J property in the vicinity of the previous drilling.

Later in 1985, Esso Minerals optioned the property to conduct a diamond drilling program in the immediate vicinity of the 1973 gold discovery (Percussion Drill Hole 73-7). A total of 186.5 metres were drilled in three vertical diamond drill holes and one of the drill holes, DDH 85-1, of 68.3 metres length, "twinned" PDH 73-7.

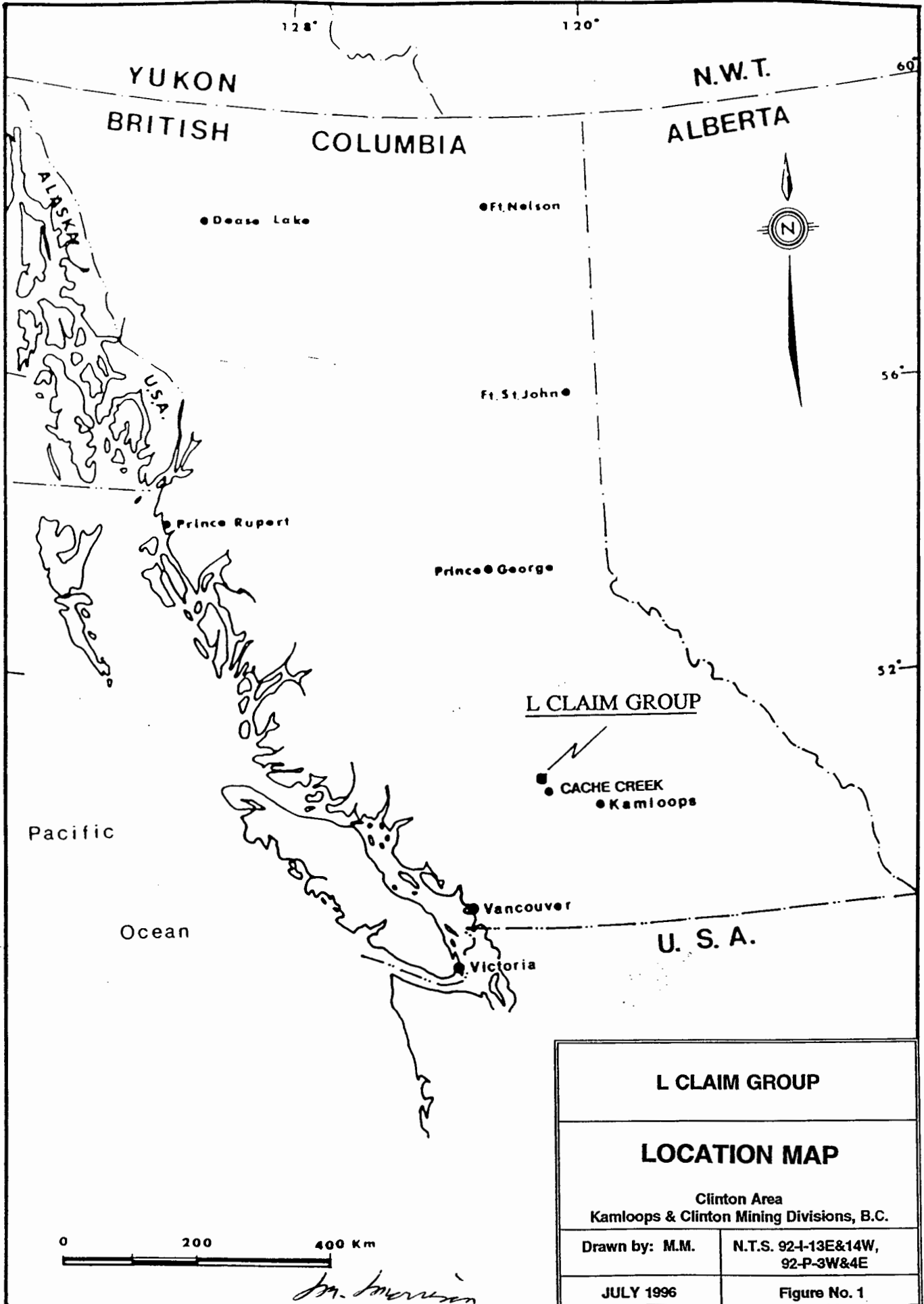
SUMMARY continued

The twinned drill hole, DDH 85-1, returned 430 parts per billion gold over 2.4 metres from 44.8 to 47.2 metres (presumably the same zone intercepted in PDH 73-7). The core recoveries were not good (35%) for DDH 85-1 and no sludge was collected for assaying, and therefore, the test was not conclusive in this writer's opinion. The other two diamond drill holes, DDH 85-2&3, were drilled 50 metres northwest and 50 metres southeast of DDH 85-1, respectively. These two drill holes returned negligible amounts of gold and Esso Minerals terminated their option.

This year's VLF-EM survey, using the moderately weak Annapolis, Maryland signal station, failed to identify any meaningful conductors on the property. However, surveys carried out over much of the property in 1985, and expanded to the northwest in 1995, identified several northwesterly trending conductors that are thought to represent graphitic argillite beds within the Permian metasedimentary sequence. Of the 13 conductors identified in 1985 & 95 one (Conductor G) is believed to represent a graphitic argillite bed which lies immediately below the ankeritic gold zone discovered in 1973.

It is considered important to trace Conductor G across the property and it is recommended that this year's VLF-EM survey be repeated and expanded to the northwest using the strong Seattle signal station.

Once Conductor G is clearly defined then a Reverse Circulation Percussion drilling program is recommended to test for the ankeritic gold zone adjacent to the conductor.



L CLAIM GROUP	
LOCATION MAP	
Clinton Area Kamloops & Clinton Mining Divisions, B.C.	
Drawn by: M.M.	N.T.S. 92-I-13E&14W, 92-P-3W&4E
JULY 1996	Figure No. 1

M. Morrison

INTRODUCTION

This report, written for government assessment work requirements, discusses the results of a ground VLF-EM survey conducted over portions of the L 1-4 mineral claims by the writer during May, 1996.

The L Claim Group is comprised of 17 contiguous 2-post mineral claims owned by the writer, M. Morrison, of Kelowna, B.C.

The property, located 23 km northwest of Cache Creek, B.C., covers a gossanous zone that is clearly visible on bluffs north of Highway #97, 1 1/2 km west of the Loon Lake road junction. The original mineral claims were staked in 1982 to cover the gossanous zone. Further mineral claims have been added to the north over the past 13 years, and the property now extends 4 km to the top of Hart Ridge.

The gossanous zone near the highway, called the Highway Showing throughout this report, is comprised of weathered ankerite. Ankerite, quartz and mariposite replace highly disrupted tuffaceous beds of Permian Age Cache Creek Group rocks at this showing. Similarly replaced rocks were discovered below deep overburden 2 km to the northwest during a 1973 percussion drilling program conducted by Cordilleran Engineering. This second zone returned an impressive assay of 15 g/tonne gold over 3 metres during the 1973 program (Sanguinetti, 1974).

Cordilleran Engineering speculated that the two ankeritic zones might be connected and in 1974 they drilled three percussion drill holes between the two zones. The gold horizon was not found, however, and the property was allowed to lapse. (This writer believes that the 1974 drilling may have been conducted slightly too far to the east to intercept the ankeritic gold zone).

INTRODUCTION continued

In 1985, Esso Minerals "twinned" the successful 1973 percussion drill hole with a diamond drill hole. The 1985 hole returned only 430 parts per billion gold from the same interval that had yielded gold in 1973, but core recovery was poor and no sludge was collected. The test was inconclusive in the writer's opinion.

There remains an intriguing gold target on the property that has not been fully explored, and the heavy cover of till (15 to 30 metres deep) has greatly hampered exploration efforts to date. A ground magnetometer survey over a portion of the property conducted by the writer in 1992 proved to be of little value (Morrison, 1992). However, a ground VLF-EM survey carried out by the writer in 1985 over the southern portion of the property did outline several moderately strong conductors. In 1985, it was interpreted that the conductors might represent graphitic argillite beds of the Cache Creek Group, and therefore outline the strike of subcrop geology. It was recognized that if the subcrop geology was represented by the trend of the conductors then the strike direction of the ankeritic gold zone might also be defined (Morrison, 1985).

The success of the 1985 VLF-EM survey prompted the decision to extend the survey on to the L 9-14 mineral claims to the northwest in 1995.

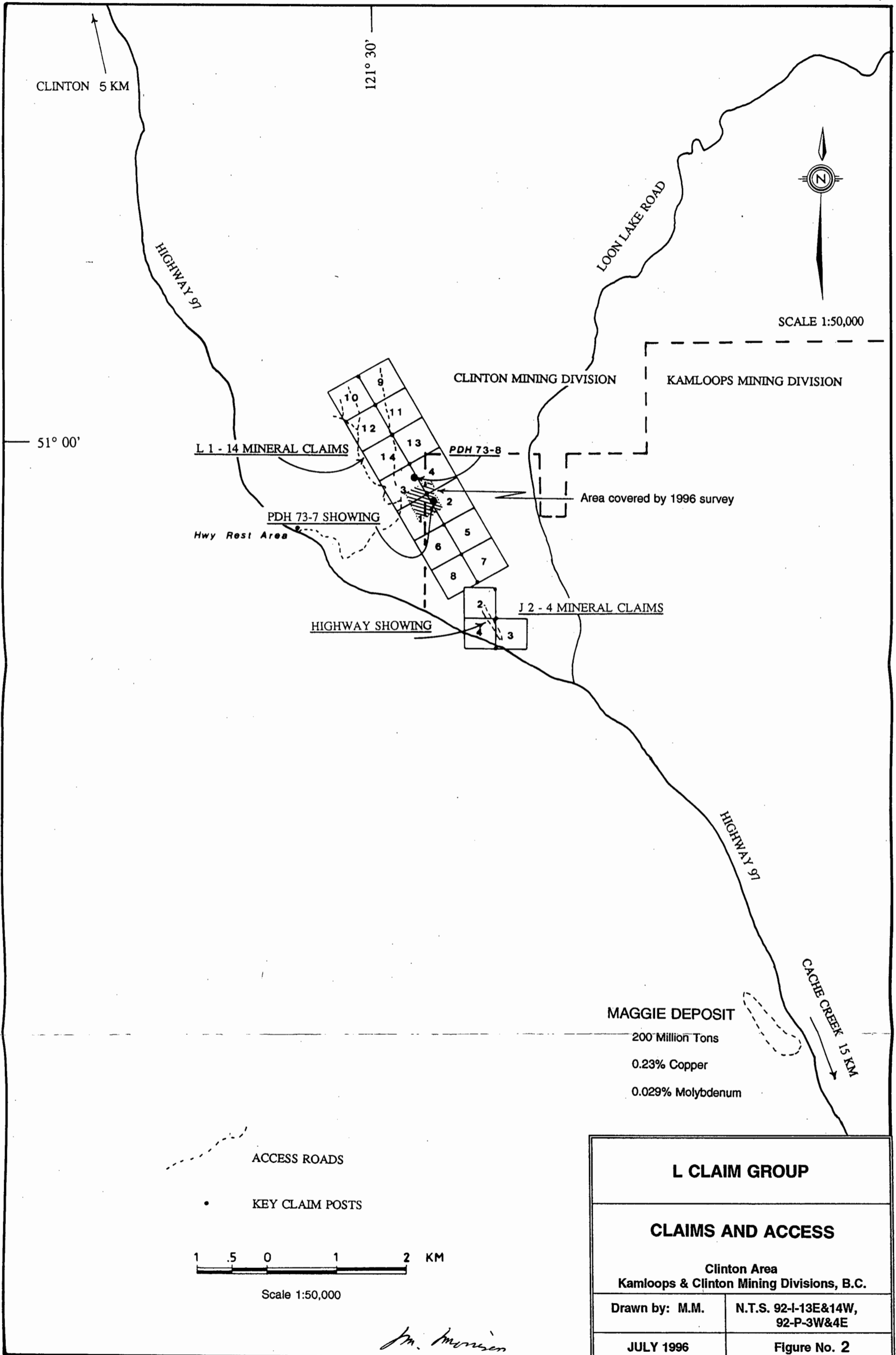
This year's VLF-EM program was carried out in the vicinity of the 1985 diamond drill holes where VLF-EM conductors had been identified (Morrison, 1985). It was hoped that with this year's more closely spaced grid (50 x 25 metres) that the trace of the conductors could be better defined.

Much of the background information of this report has been repeated from the 1995 Assessment Report filed with the government. However, Figures 3 & 4, accompanying this report, illustrate the new data obtained during this year's survey. Figure 3 shows the Dip Angle and Field Strength data, while Figure 4, represents the VLF-EM data in a Fraser Filtered contoured format.

LOCATION AND ACCESS

The L Claim Group lies immediately north of Highway 97, 23 km northwest of Cache Creek, or 15 km southeast of Clinton, B.C. (Lat. 51°00'; Long. 121°30'; N.T.S. Maps 92-I-13E & 14W and 92-P-3W & 4E).

Access to the L 1-14 mineral claims is via a dirt logging road which leaves Highway 97 at a Tourist Rest Area 3.8 km west of the Loon Lake road turn-off (please see Figure 2).



PHYSICAL FEATURES AND CLIMATE

The L Claim Group straddles the southern end of Hart Ridge - a spur of land that separates the Bonaparte River Valley on the east from the valley of Maiden Creek on the southwest.

The upland surface of Hart Ridge is covered with deep glacial drift and most of the rock exposures on the L Claim Group are restricted to the flanks of the ridge adjacent the two main valleys.

The L Claim Group lies near the northern end of the Cache Creek - Ashcroft desert. The sagebrush of the Bonaparte River Valley at 580 metres elevation gives way to a forest of Douglas fir along Highway 97 as it climbs away from the valley towards Clinton. The L property lying just north of the highway is forested with Douglas fir. (The mean elevation of the property is 900 metres above sea level).

The Douglas fir has been selectively logged from portions of the property. Elsewhere, a severe caterpillar infestation of several years ago has killed half of the forest. Some of the dead forest still stands, but much of it has fallen in recent years to rot on the forest floor.

The property receives approximately 40 cm of precipitation annually. Winter snow generally covers the property from early November until mid-March and can reach up to 70 cm in depth.

CLAIM STATUS

The L Claim Group is comprised of 17, 2-post mineral claims all staked and owned by the writer, M. Morrison of Kelowna, B.C. The Claim Group straddles the boundary of the Clinton and Kamloops Mining Divisions. Particulars of the 17 mineral claims are listed below:

<u>CLAIM NAME</u>	<u>UNITS</u>	<u>DATE OF RECORD</u>	<u>TENURE NUMBER</u>	<u>MINING DIVISION</u>	<u>EXPIRY* DATE</u>
J2	1	May 11/82	217044	Kamloops	May 11/97
J3	1	May 11/82	217045	Kamloops	May 11/97
J4	1	May 11/82	217046	Kamloops	May 11/97
L1	1	May 12/94	325709	Kamloops	May 12/98
L2	1	May 12/94	325710	Kamloops	May 12/98
L3	1	May 12/94	325711	Kamloops	May 12/98
L4	1	May 12/94	325712	Kamloops	May 12/98
L5	1	May 14/94	325713	Kamloops	May 14/97
L6	1	May 14/94	325714	Kamloops	May 14/97
L7	1	May 14/94	325715	Kamloops	May 14/97
L8	1	May 14/95	325716	Kamloops	May 14/97
L9	1	Mar 29/95	334809	Clinton	Mar 29/97
L10	1	Mar 29/95	334810	Clinton	Mar 29/97
L11	1	Mar 29/95	334811	Clinton	Mar 29/97
L12	1	Mar 29/95	334812	Clinton	Mar 29/97
L13	1	Mar 29/95	334813	Clinton	Mar 29/97
L14	1	Mar 29/95	334814	Clinton	Mar 29/97

Note: the new Expiry Date is based on the acceptance of this report for Assessment Work C Credits.

HISTORY

The discovery of the Maggie Mine copper-molybdenum porphyry deposit by Bethlehem Copper Corporation in 1970, 15 km northwest of Cache Creek, B.C., sparked a staking rush that extended for several kilometers north and south of the discovery. The southern spur of Hart Ridge, now covered by the L Claim Group was covered during the Maggie staking rush by the Ranger and Paw mineral claims owned by Calgary-based Peyto Oil Ltd.

The large Ranger-Paw property, consisting of 159, 2-post mineral claims, was explored for its porphyry copper-molybdenum potential from 1970 until 1973 in the wake of the Maggie discovery. Exploration surveys included: geological mapping, geochemical soil sampling (for copper and molybdenum only), magnetometer surveying and induced polarization surveying carried out under the direction of Cordilleran Engineering and others. The geochemical results were negligible, but in 1973, fifteen percussion drill holes were drilled to test several of the induced polarization survey anomalies. No significant copper-molybdenum mineralization was discovered, but percussion drill hole 73-7 did intercept 3 metres of 15 grams of gold per tonne from 42.7 to 45.7 metres. The gold occurred with pyritic, quartz-carbonate material.

In 1974 the original 159 claim property was reduced to 17 claims (covering much of the same country that is now covered by the L Claim Group). Four widely separated percussion drill holes were drilled in an attempt to extend the gold zone discovered in PDH 73-7. No gold was found the property was allowed to lapse (Sanguinetti, 1974).

The ground remained open until 1982 when the J 1-4 mineral claims were staked by the writer. A prospecting survey accompanied by some litho-geochemical sampling was carried out on the J 1-4 mineral claims in 1983 (Morrison, 1983). In 1984 the J 5 mineral claim was added to the property.

HISTORY continued

A VLF-EM ground survey was conducted over the central portion of the J 5 mineral claim in early 1985 (Morrison, 1985) and later the same year Esso Minerals drilled 3 diamond drill holes, totalling 186.5 metres, in the vicinity of PDH-73-7 (with one of the diamond drill holes "twinning" the 1973 drill hole). The best intercept was only 430 parts per billion gold over 2.4 metres from the "twinned" drill hole. Core recoveries were poor and no sludge was collected, but the drill test was considered negative by Esso Minerals and they returned the property to the writer (Melnyk, 1985).

A ground magnetometer survey was conducted over the central portion of the J 5 mineral claim by the writer in 1992. The magnetic character of the property, however, proved to be weak.

The J 5 mineral claim subsequently lapsed and the L 1-14 mineral claims were staked by the writer in 1994 & 95 to cover some of the area previously covered by the J 5 mineral claim.

In 1995, a VLF-EM ground survey was conducted on the L 9-14 mineral claims northwest of the 1985 survey.

REGIONAL GEOLOGY

The Geological Survey of Canada, 1"=4 mile scale geological maps, 1010A - Ashcroft Area and 1278A - Bonaparte Area by Duffell and McTaggart (1952) and Campbell and Tipper (1971), respectively, outline a 10 by 75 km belt of Permian Cache Creek Group rock which is centered at Cache Creek and extends south to Martel and north to Clinton. The sedimentary and volcanic rocks of the Cache Creek Group are highly faulted and generally disrupted throughout much of the belt, and they are locally intruded by small bodies of ultrabasic intrusions which are serpentized.

The L Claim Group, located near the northern end of the belt, covers highly disrupted Cache Creek Group sediments and meta-volcanics 7 km northwest of the well-known Maggie copper-molybdenum deposit.

The Maggie deposit, with published reserves of 200 million Tons of 0.23% copper and 0.029% molybdenum, is associated with an elongate Tertiary intrusive of biotite-quartz monzonite porphyry which strikes 143 degrees and intrudes the Cache Creek Group rocks.

The quartz-carbonate replacement zone at the L Claim Group Highway Showing strikes 150 degrees; semi-conformable with the general shearing/bedding in the district.

PROPERTY GEOLOGY

The L Claim Group is believed to be underlain by a succession of Permian Cache Creek Group sedimentary rocks which include interbedded pyroclastic rocks. The general bedding appears to strike at 150 degrees and dip 60 to 70 degrees southwest although on the bluffs north of Highway 97 (on the J 1-4 mineral claims) the rocks are locally warped, drag-folded and generally dislocated by strong faulting and a wide range of bedding attitudes are displayed.

The dominant rock unit north of the highway is a black, thin-bedded argillite which is sometimes cherty and often graphitic. The argillite is highly foliated and erodes easily. Limestone is known to be interbedded with the argillites and at grid 26+50N, 17+65W (1992 survey) a mass of limestone 30 metres thick is exposed.

Dacitic to andesitic tuff is locally interbedded with the argillites also, and at the Highway Showing these tuffs have been selectively replaced with quartz, carbonate and mariposite.

The main carbonate replacement zone north of the highway was traced for 700 metres during a 1983 prospecting program (Morrison, 1983). The central part of the lense-shaped zone has been particularly disrupted by drag-folding and over a distance of a few metres the original rock is brecciated and entirely replaced with ankerite/dolomite (65%), quartz (30%) and mariposite (5%). A sample of this rock was found to contain 1155 parts per million arsenic in 1983.

Two kilometers northwest of the Highway Showing a second quartz-carbonate replacement zone was found within Cache Creek Group argillites at a depth of 42.7 metres in a percussion drill hole drilled in 1973. PDH 73-7, drilled by Cordilleran Engineering, returned 15 grams of gold per tonne from the 3 metre quartz-carbonate zone.

Attempts by Cordilleran Engineering to trace the PDH 73-7 gold-bearing replacement zone back towards the Highway Showing with a series of three widely spaced drill holes along Hart Ridge in 1974 failed. The 1974 drill program was hampered by overburden and this

PROPERTY GEOLOGY continued

writer believes that the follow-up drill holes were all drilled too far east of the projected strike of the replacement zone. The 1974 drill holes intercepted interbedded argillites and cherts of the Cache Creek Group.

Another drill hole of the 1973 program, PDH 73-8, located 435 meters northwest of PDH 73-7, returned an average of 23 parts per billion gold over the 76 metre bedrock interval of the drill hole. None of the 1974 follow-up drilling was conducted in the vicinity of PDH 73-8 by Cordilleran Engineering.

The thick cover of drift continues to impede exploration on the central portion of the property. Geology can be mapped on the flanks of Hart Ridge, but due to the high degree of faulting cannot with any certainty be projected to the centre of the property. As an example, a large outcrop of Limestone mapped at grid 26+50N, 17+65W has a 010/vertical foliation, which is at odds with other bedding/foliation measurements on the property.

An attempt to geophysically trace the Cache Creek Group geology across the drift covered J 5 mineral claim was made in 1985 by the writer (Morrison, 1985). A VLF-EM survey was carried out to trace conductive graphitic argillite units. The survey did identify several conductors crossing the property at 150 to 160 degrees - a direction that could represent the strike of the underlying Cache Creek Group rocks. The success of the 1985 survey prompted the decision to conduct the 1995 VLF-EM survey over the L 9-14 mineral claims located immediately northwest of the 1985 survey area.

Mapping on the bluffs north of Highway 97 reveals that late northeast and northwest transverse faults offset beds of the Cache Creek Group a few metres here and there across the property.

Badly broken, thin-bedded, sandstones and grits of Jurassic (?) Age are in fault contact with Cache Creek Group rocks on the western side of the L Claim Group.

VLF-EM SURVEY - 1996

Grid

The L 1 - 4 mineral claim's Location Line at a bearing of 330 degrees was used as a Baseline for this year's survey. Ten grid lines, spaced 50 metres apart, were then run perpendicular to the Baseline for 75 to 150 metres to the northeast and for 275 metres to the southwest as illustrated on Figures 3 & 4. In all, 3.6 metres of grid line were flagged across the property and stations for the VLF-EM survey were marked at 25 metre intervals. A Topolite belt chain and a Silva Ranger compass were used to establish the grid lines in conjunction with the survey. The grid coordinates of the 1985 VLF-EM survey were used for this year's detailed survey.

Program

The VLF (very low frequency) exploration method makes use of high-powered electromagnetic transmissions broadcast by naval radio communication stations distributed around the world. These transmissions induce electric currents in conductive bodies. The induced current produces secondary magnetic fields which can be detected by measuring deviations in the normal VLF fields. VLF-EM instruments are designed to detect these deviations.

A Sabre, Model 27, VLF-EM instrument made by Scintrex was used to conduct the survey over 3.6 km of grid on the L property. The Annapolis, Maryland, VLF signal (21.4 kHz) was received from a direction of 125 degrees, azimuth, and was used for the entire survey.

In-Phase Tilt Angle readings were taken facing a direction of 125 degrees at each survey station. Northeast tilts were recorded as positive (+) and southwest tilts were recorded as negative (-). Field Strength readings were also recorded at each survey station with the instrument facing 035 degrees, azimuth, perpendicular to the Signal Station.

VLF-EM SURVEY - 1996 continued**Program** continued

Field Strength readings were taken along the Baseline and all grid station readings were then corrected for diurnal variation using the Base Stations along the Baseline in much the same manner as is used for magnetometer surveys. The corrected Field Strength values have been contoured on Figure 3, which also displays the In-Phase Tilt Angles.

The In-Phase Tilt Angle values have been Fraser Filtered and contoured on Figure 4. The Fraser Filtering of VLF-EM data has had widespread use for several years, and a full explanation of the technique is given in the geophysical paper by Peterson and Ronka that is listed with the references at the end of this report.

The Fraser filtering technique may be briefly summarized as follows: by means of simple mathematical operations the tilt data can be transformed into contourable form, and the effects of noise and topography can be filtered from data. By averaging pairs of stations and taking differences between pairs separated by the appropriate distance, values may be plotted and contoured in plan that transform cross-overs into peaks, and a low-pass smoothing mathematical operator reduces noise.

Results**General Comment**

This year's grid was established with the intention of using the same strong Seattle VLF signal that had been used during the 1985 & 95 surveys. However, once the grid was established, it was found that the Seattle station was not transmitting, and a decision was made to conduct the survey using the Annapolis, Maryland VLF signal even though the signal was moderately weak and the direction of the signal was not well suited for the geology of the property.

VLF-EM SURVEY - 1996 continued**Results** continued**Field Strength Data**

The Field Strength data collected this year is illustrated on Figure 3. It was hoped that the Field Strength readings would yield meaningful data even though it was recognized that the Annapolis signal would not be a good signal for defining northwest trending conductors. The results of the survey (see Figure 3) show that all of the Field Strength values fall within a very narrow range (46 to 70) and that most of the values are in the 50's. The contouring of the 50, 60 and 70 values on Figure 3 has not developed any patterns which are correlative with the conductors described under the next title.

Fraser Filtered In-Phase Data

Four weak northeasterly trending VLF-EM conductors have been denoted with the letters R, S, T & U on Figure 4 which illustrates the contoured Fraser Filtered In-Phase data of this year's survey.

Conductor R extends for only 100 metres from L24N to L25N on the southwestern edge of the survey area. It is a weak conductor that is coincident with a broad morainal ridge.

Conductor S is a little stronger than Conductor R and it extends for 400 metres from L22+50N, 20+40W to L26+00N, 19+20W. Conductor S is entirely coincident with a ravine.

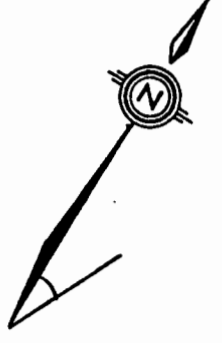
Conductor T is also entirely coincident with a ravine. The conductor is weak, but it crosses the entire survey area for 500 metres from L22+00N, 19+65W to L26+50N, 17+65W.

VLf-EM SURVEY - 1996 continued**Results** continued**Fraser Filtered In-Phase Data** continued

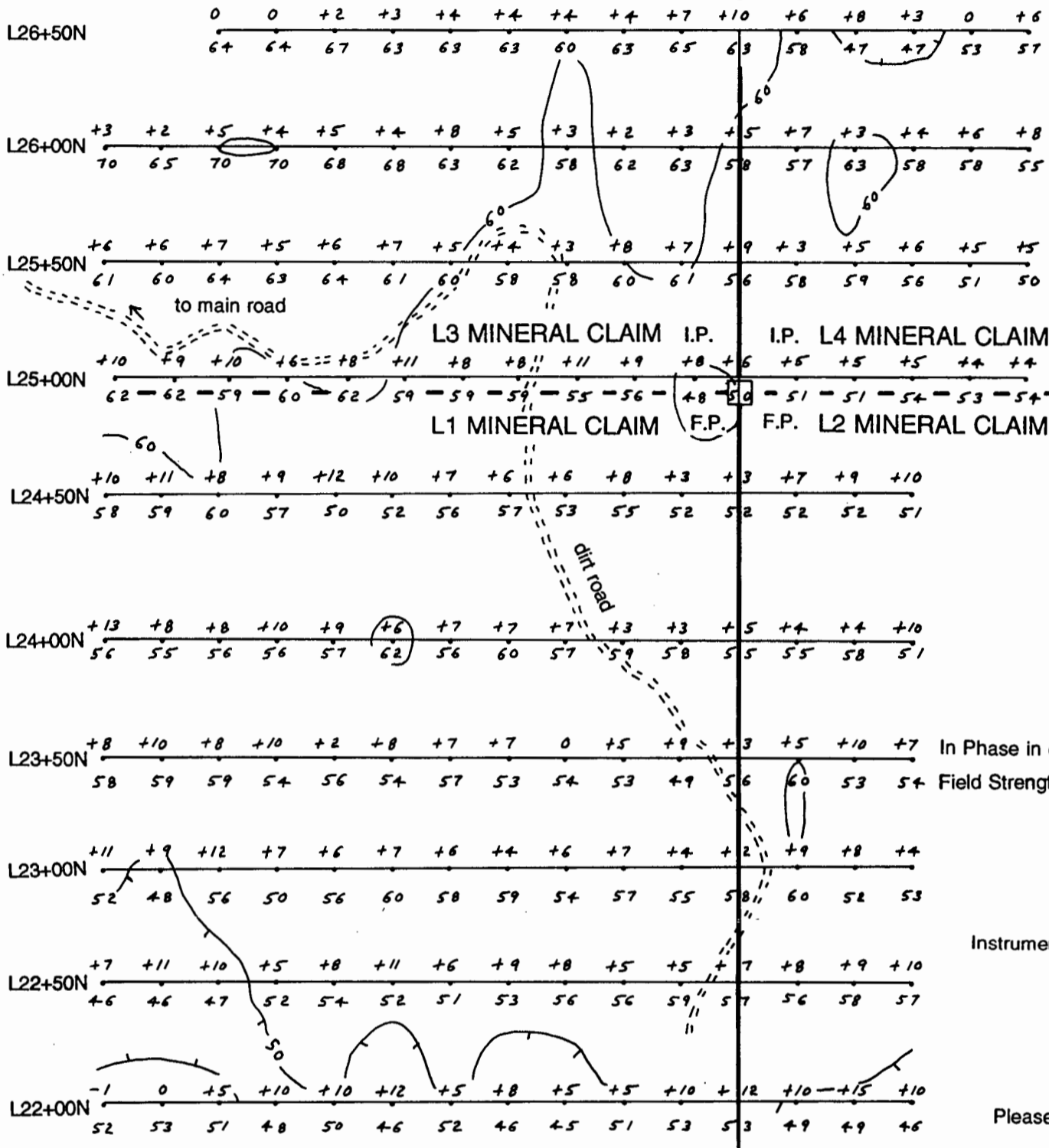
Conductor U is weak, but distinct over a distance of 150 metres from L22+00N, 19+15W to L23+50N, 18+40W. Conductor U, like Conductor R, is coincident with a broad morainal ridge.

21+00W 20+00W 19+00W 18+00W 17+00W

250 metres to Final Post



23°00' magnetic declination



In Phase in degrees
Field Strength

Instrument: Sabre, Model 27, by Scintrex

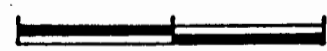
Please see Figure 4 for Fraser Filtered Data

Signal Station: Annapolis, Maryland

BASELINE

I.P. I.P.

0m 50m 100 metres

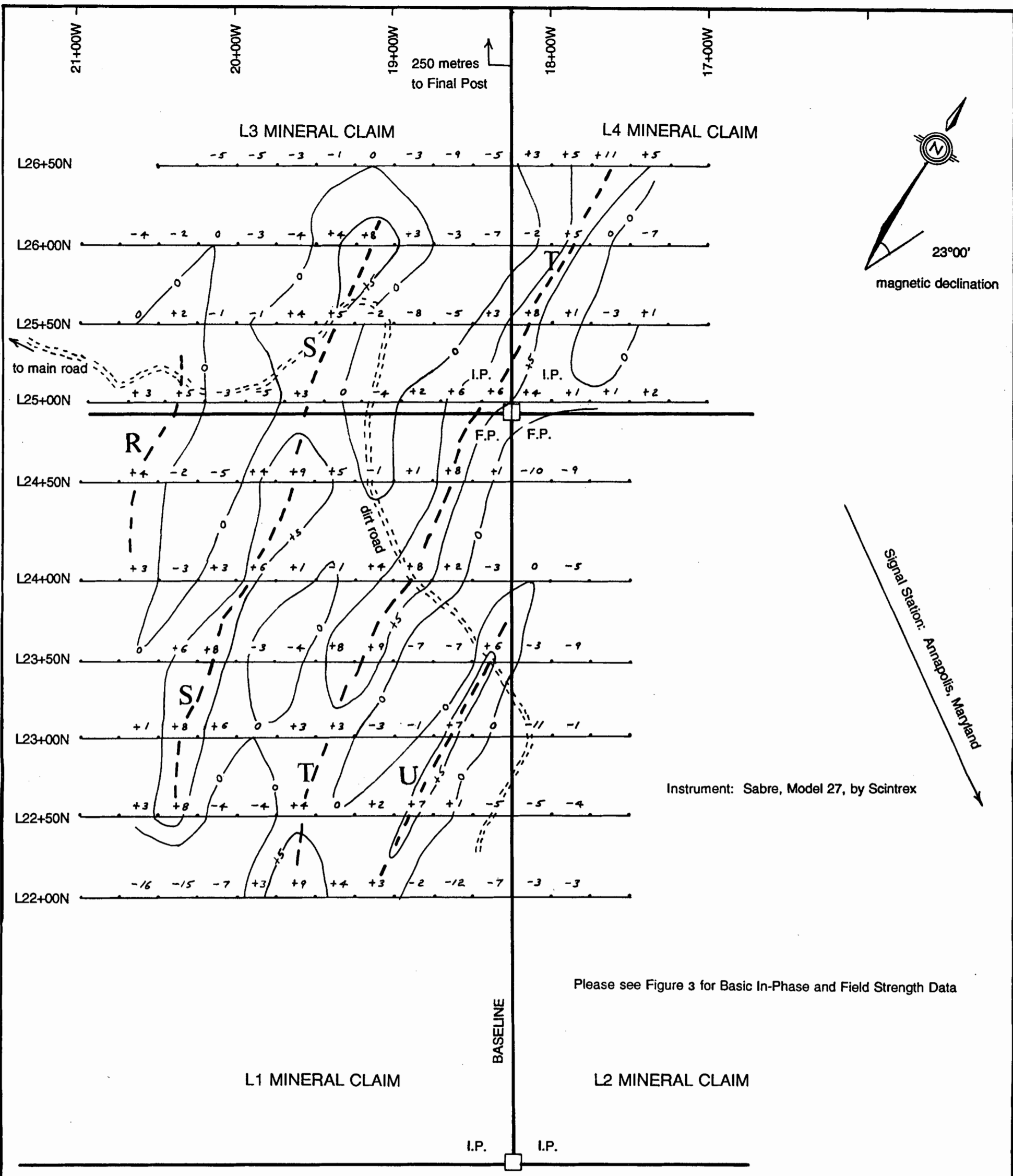


Scale 1:2500

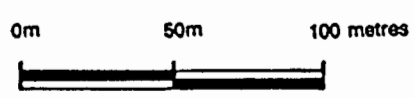
Claim Posts tied-in with Compass and Belt Chain

Signature

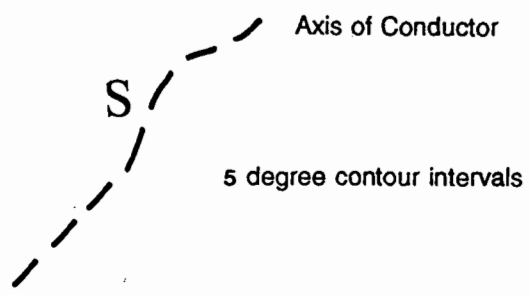
L CLAIM GROUP	
VLF-EM GROUND SURVEY IN-PHASE & FIELD STRENGTH BASIC DATA L 1 - 4 MINERAL CLAIMS Clinton Area Kamloops & Clinton Mining Divisions, B.C.	
Drawn by: M.M.	N.T.S. 92-I-13E&14W, 92-P-3W&4E
JULY 1996	Figure No. 3



Please see Figure 3 for Basic In-Phase and Field Strength Data



Scale 1:2500



Claim Posts tied-in with Compass and Belt Chain

John Morrison

L CLAIM GROUP	
VLF-EM GROUND SURVEY FRASER FILTERED DATA L 1 - 4 MINERAL CLAIMS Clinton Area Kamloops & Clinton Mining Divisions, B.C.	
Drawn by: M.M.	N.T.S. 92-I-13E&14W, 92-P-3W&4E
JULY 1996	Figure No. 4

DISCUSSION

The four conductors of Figure 4 represent surficial features on the property. Two of the weak conductors (R & U) are coincident with broad morainal ridges and the other two (S & T) are coincident with ravines. It appears that the Fraser filtering of the data has not entirely eliminated the effects of topography on the survey. The fact that the Field Strength data (Figure 3) does not show any correlation with the Fraser Filtered data confirms that the conductors plotted on Figure 4 are not true conductors.

It is now apparent that the weak Annapolis VLF signal did not allow for the VLF-EM instrument to pick up the effects of the subcrop conductors that are known to be buried below 30 metres of overburden on the property. Previous surveys using the stronger Seattle VLF signal were very effective in outlining several conductors trending northwest across the property (Morrison, 1985 & 95). It is now obvious that the Seattle signal should be used for any future surveys.

A total of 13 conductors were identified during the 1985 & 95 surveys, and these were lettered A to M on maps submitted with the 1985 & 95 Assessment Reports (see References). Conductor G, which was identified during both surveys, crosses the property for 1500 metres from L20N to L35N.

The axis of Conductor G (1985 survey) passes within 15 metres of PDH 73-7 (see History) and it is thought that the conductor may represent a graphitic argillite that forms the footwall of the ankeritic gold zone encountered in that the hole (15 g/tonne gold over 3m). If the Conductor G does represent the footwall of the gold zone then it is suggested that defining the trace of the conductor across the property is very important.

Conductor G shows up strongly on the 1985 VLF-EM survey map from L24N to 30N. Conductor G was also identified on L31N at 17+90W during the 1995 survey. North of L31N the conductor fades (presumably below thick overburden) and then reappears strongly 300 metres to the northwest on L35N at 16+20W.

DISCUSSION continued

The 700 metre segment of Conductor G, lying between L24N and 31N, in the vicinity of 1973 drill holes PDH 73-7 & 8 is considered the best exploration target on the property, and it was this segment of the conductor that was surveyed in detail this year. Unfortunately, as already stated, the Annapolis, Maryland VLF-EM signal was not of sufficient strength to identify conductors below the deep overburden, and it is recommended that the survey be repeated using the much stronger Seattle VLF signal.

Once Conductor G is well defined, it is proposed that a series of low-cost Reverse Circulation Percussion drill holes be drilled from southwest to northeast across the conductor to at least the 60 metre depth to test for the ankeritic gold zone. It is recommended that the drilling program be initiated on L28N where PDH 73-8 demonstrated that the overburden was relatively shallow (15 metres).

The chip samples from the drilling program should be analyzed for gold, silver, mercury, antimony and arsenic.

CONCLUSIONS AND RECOMMENDATIONS

This year's VLF-EM ground survey over portions of the L 1-4 mineral claims failed to identify any conductors that are thought to represent bedrock features. The moderately weak Annapolis, Maryland VLF signal was not well suited for the property which is known to have extensive overburden (up to 30 metres). However, the Seattle, Washington VLF signal was not available during the survey period and a decision was made to proceed using the Annapolis signal.

Previous surveys using the Seattle VLF signal (Morrison, 1985 & 95) had been very effective in identifying several good conductors which cross the property in a northwest direction conformable with that of the underlying Permian Age Cache Creek Group metasediment (i.e. 150 degrees). It is thought that these conductors could represent the northwestern extensions of graphitic argillite beds that outcrop on bluffs near the southeastern end of the property.

One conductor in particular, Conductor G, is considered of significance, because it appears to represent a graphitic argillite bed that occurs at the footwall of an ankeritic gold zone (15 g/tonne gold over 3 m) first discovered by Cordilleran Engineering in percussion drill hole PDH 73-7 in 1973. It was recognized in 1985 that Conductor G might be used as a guide to trace the ankeritic gold zone across the property. Limited diamond drilling by Esso Minerals in 1985 found the ankeritic and graphitic zones, but failed to find significant gold (i.e. 430 parts per billion over 2.4 metres; see History).

In this writer's opinion the 1985 drilling program was inconclusive due to poor core recoveries, and the ankeritic gold zone is still a valid exploration target.

Further exploration of Conductor G is warranted, particularly along the 700 metre segment of the conductor from L24N to L31N, in the vicinity of 1973 drill holes PDH 73-7 & 8.

This year's VLF-EM survey should be repeated using the strong Seattle VLF signal and the grid should be extended north to L31N. Once Conductor G is well defined, a Reverse

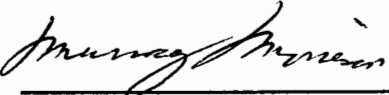
CONCLUSIONS AND RECOMMENDATIONS continued

Circulation Percussion drill should be used to test for the ankeritic gold zone (see Discussion).

The drill chips should be analyzed for gold, silver, mercury, antimony and arsenic.

The proposed target area is readily accessible.

July 31, 1996
Kelowna, B.C.



Murray Morrison, B.Sc.

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G.S.C. = Geological Survey of Canada.

APPENDIX ASTATEMENT OF QUALIFICATIONS

I, Murray Morrison, of the City of Kelowna, in the Province of British Columbia, do hereby state that:

1. I graduated from the University of British Columbia in 1969 with a B.Sc. Degree in Geology.
2. I have been working in all phases of mining exploration in Canada for the past twenty-five years.
3. During the past twenty-five years, I have intermittently held responsible positions as a geologist with various mineral exploration companies in Canada.
4. I have conducted several geological, geochemical, and geophysical surveys on mineral properties in Southern British Columbia during the past twenty-five years.
5. I conducted the VLF-EM survey on the L 1 - 4 mineral claims.
6. I own a 100% interest in the J 2-4 and L 1-14 mineral claims.

July 31, 1996
Kelowna, B.C.


Murray Morrison - B.Sc.

APPENDIX B**STATEMENT OF EXPENDITURES - ON THE L CLAIM GROUP**

Statement of Expenditures in connection with a VLF-EM Survey carried out on the L Claim Group, located 12 km southeast of Clinton, B.C. (N.T.S. Maps 92-P-3W, 4E and 92-I-13E & 14W) for the year 1996.

VLF-EM SURVEY (3.6 km)

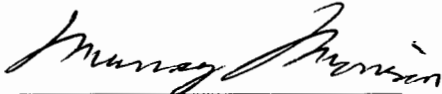
M. Morrison, geologist	3 days @ \$300.00/day	\$ 900
Truck, 4 x 4 (including gasoline and insurance)	3 days @ \$75.00/day	225
Meals and Lodging	3 days @ \$70.00/day	210
Flagging and belt chain thread		30
VLF-EM instrument rental	3 days @ \$25.00/day	<u>75</u>
	Sub-total:	\$ 1,440

REPORT PREPARATION COSTS

M. Morrison, geologist (Fraser Filter calculations; plotting and contouring results; analyzing data and writing report)	1 day @ \$300.00/day	\$ 300
Drafting		53
Typing		83
Copying reports		<u>20</u>
	Sub-total:	\$ 456
	Grand Total:	\$ <u>1,896</u>

I hereby certify that the preceding statement is a true statement of monies expended in connection with the VLF-EM Survey carried out May 5-9, 1996.

July 31, 1996
Kelowna, B.C.


Murray Morrison - Geologist