ASSESSMENT REPORT
GEOLOGICAL MAPPING and BIOGEOCHEMICAL SAMPLING
on the DNA 1 & 3 CLAIMS
KEEFER LAKE, LUMBY AREA, B.C.
VERNON MINING DIVISION
82L1W

By

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May 2, 2002

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SUMMARY

The DNA property, consisting of two co-ordinate grid claims totaling 24 units, is located in southern British Columbia approximately 63 kilometres east of Vernon. Locally, it is situated on the eastern end of Monashee Mountain three kilometres west of Keefer Lake. It is readily accessible from a provincial highway by a logging road and a short bush road.

The general claims area has a long, intermittent history of placer gold mining dating from the 1870's to the present. Small quantities of gold were produced from a number of creeks in the district and local streams near the property. Base and precious metal properties are also known in the area.

The DNA claims are relocations of the Dona claims, which were originally staked in 1973 by El Paso Mining and Milling Company to cover a stream silt gold-arsenic geochemical anomaly discovered during a regional stream sediment-prospecting program. Subsequent work on the claims by El Paso during 1973-74 defined an area approximately 700 metres by 215 metres strongly anomalous in gold, silver and arsenic and moderately anomalous in lead. Results from a backhoe trenching program found that the geochemical anomalous zone was due to low grade gold mineralizaton associated with quartz vein stockworks hosted in a dioritic sill-like structure intruded into metasediments and volcanic flows of the Thompson Assemblage.

When El Paso ceased operating in British Columbia they assigned the property to several of its former geologists. They optioned it to a local mining promoter who, after six years, ran into financial problems and let the property lapse. It was promptly re-staked by Jones, one of the original owners and author of this report.

The property has been optioned out to various companies: Keefer Lake Resources Inc. in 1982-88; Phelps Dodge Corporation of Canada in 1992: and Carbon Reef Resources in 1993. The largest program was conducted by Phelps Dodge who gridded and soil sampled a large area which included, but expanded on, that area covered by El Paso. Their results confirmed the large gold-arsenic geochemical anomaly. The above companies filed assessment reports on the work they conducted.

In 1999 a trial biogeochemical survey was conducted on the property financed by the owners. Two areas were selected for this work, the Northwest and Southeast grids. The former covered a part of the large geochemically anomalous area which had been trenched by El Paso, the latter an area near the southern end of same soil sampled area where little work was conducted. The purpose of this work was to test its effectiveness as an exploration tool on this mostly overburdened-covered property.

It was planned to use dry twigs from Lodgepole pine as a sampling medium since past experience by the contractor (Morrison, B.Sc) found that twigs from these trees commonly yielded very high silver values. Silver, associated with gold on this property, can be used as a pathfinder for gold. Unfortunately, these trees were only abundant on the Southeast grid where they were used, with Balsam fir being used on the Northwest grid. Morrison had also found from experience that Balsam fir commonly has a much lower silver background than Lodgepole pine, resulting in a different silver background for each grid. Elements, which appeared to be the

most indicative of the mineralized zone, were silver, arsenic, antimony, cadmium and manganese.

The Northwest grid results indicated that elevated values of silver were coincident with elevated arsenic and manganese and reasonably coincident with cadmium and antimony. These elevated values are coincident with the large anomalous area located during the El Paso and Phelps Dodge soil surveys.

The Southeast grid results showed very high silver values in the southern part of the grid. Most of the grid also returned high values for arsenic and cadmium, indicating significant coincidence of these three elements. Antimony values were low and manganese assays displayed no distribution patterns.

In 2000 the biogeochemical survey on the Southeast grid it was extended to the south using balsam fir as the sample medium so that the sample medium for this area and the 1999 Northwest grid would be the same. Significant values for arsenic, cadmium and manganese were obtained, while silver values were very low. As, Cd and Mn accompanied by weak silver values define a northwest-trending linear zone which may (?) reflect a mineralized intrusive. Some duplicate samples were taken from stations using lodgepole pine. These returned much higher silver values.

In 2001 further sampling was conducted, using lodgepole pine, on the Southeast Grid extending the work further south to the edge of the property. Highly elevated silver assays were obtained defining a northwest-trending zone at least 200 metres long which is coincident with metasediment rubble containing quartz vein stockworks. Both the metasediments and the veinlets are mineralized with pyrite. A second zone of elevated silver values extends 100 metres to the end of the grid and widens out to 175 metres on the last line. Both areas contain scattered sites coincident with elevated arsenic and/or cadmium assays. Planned rock sampling of metasediment rubble containing veinlets had to be deferred due to heavy snow.

Overburden blankets the entire grid, making geological mapping difficult. No true outcrop was located but considerable angular, hornsfeled, metasedimentary rubble containing quartz vein stockworks is present suggesting that, in part, overburden is thin. Pyrite, up to 5%, occurs in both the veinlets and the host rock along the top of a low topographic ridge, which is inferred to be the crest of an anticline.

Each of the past and present biogeochemical surveys show that this type of sampling program is effective in confirming the presence of elevated values of one or more of silver, arsenic, antimony, cadmium and manganese in the areas tested. Since these elements accompany gold values on this property they may be considered as pathfinders for gold.

It was recommended that quartz vein-bearing rubble be sampled and assayed for gold and silver. If significant assays are obtained, then detailed soil sampling should be conducted along trend to the northwest. Lodgepine is not available in this area for additional biogeochemical sampling. Depending on results obtained, percussion drilling should be considered for additional testing.

INTRODUCTION

The DNA property hosts a gold prospect that, from previous exploration program results, is indicated to have the potential for hosting a moderate sized, low grade gold deposit. The following report was prepared as a requirement for filing assessment work conducted on the property during the period between September 30 and November 19, 2001. During this period, additional biogeochemical sampling was conducted as an extension of the "Southeast Grid" over which sampling was initiated in 1999 and continued in 2000. These previous biogeochemical surveys outlined a small area with sample assays elevated in silver, cadmium and arsenic. The 2001 biogeochemical survey was conducted to the south of the above surveys, using the same procedures and sample medium. Since silver, cadmium and arsenic accompany gold values on the property they may be considered as good pathfinders for gold. Other elements also helpful in this regard are antimony and manganese but their values were somewhat erratic and hence were not used in this report.

During the 2001 program limited geological mapping was conducted over parts of DNA 1 and 3. The purpose of the mapping was an attempt to determine the source of the Ag, Cd, and As which occurred in the biogeochemical samples and the source of gold and arsenic, which occurred in the soil samples taken in earlier surveys in 1973.

This report describes the work conducted between September 30 - November 19,2001 and the results obtained. All fieldwork was conducted by Murray Morrison, B Sc., geologist from Kelowna, who was under contract to Harold M. Jones & Associates. Morrison is familiar with the property having conducted the 1999 biogeochemical survey. He also visited the property during El Paso Mining and Milling Company's 1973 – 74 exploration programs on the property when it called the Dona property. Heavy snow interrupted the recent geological mapping but did not hinder the biogeochemical sampling.

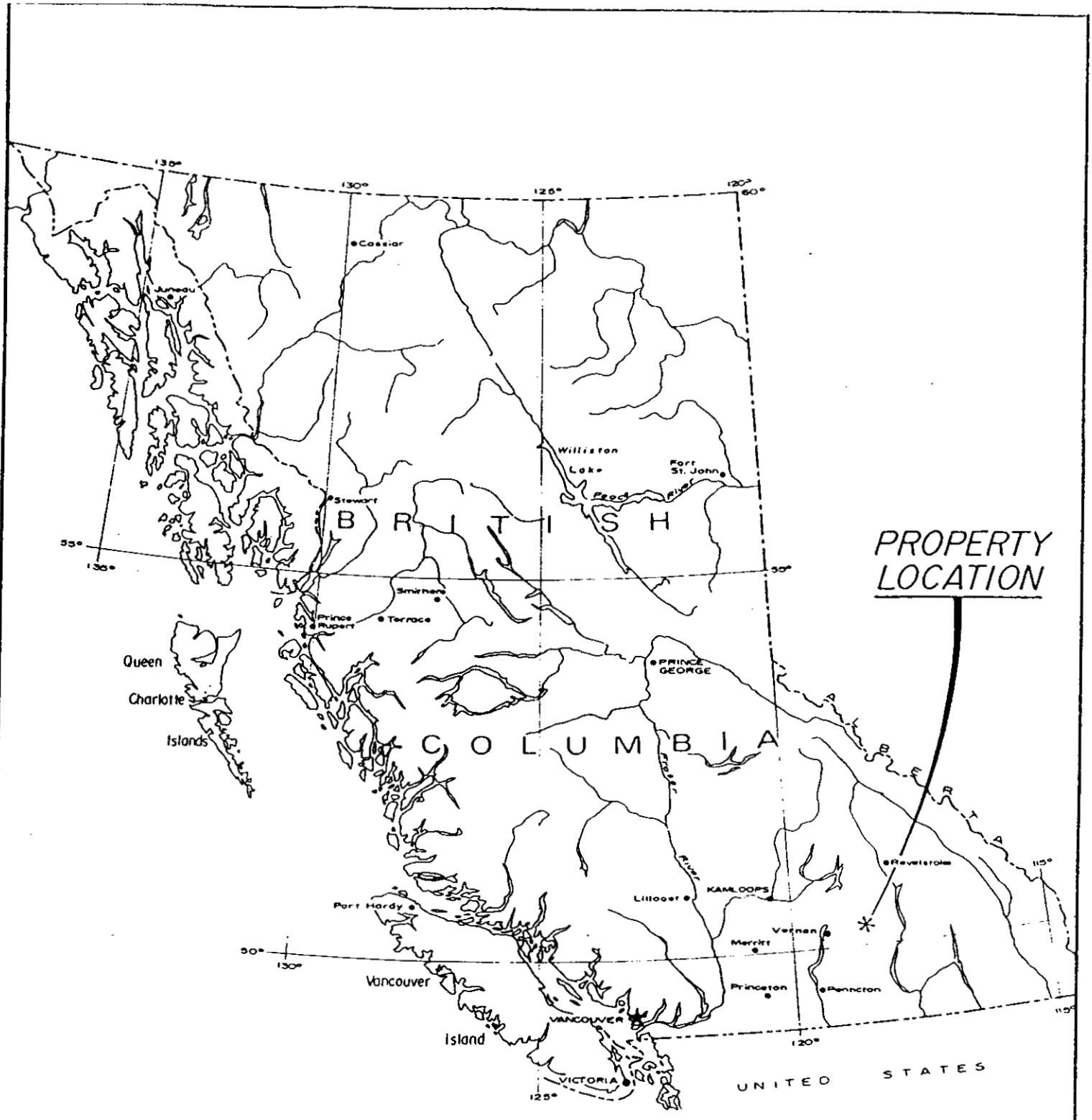
This report also summarizes all previous exploration conducted on the property (Dona, Donna, and DNA claims) and the results obtained.

Location and Access

$50^0$08' north latitude)	to approximate centre of
118^0 24' west longitude)	the claims

The DNA claims are located in the Vernon Mining Division of southern British Columbia approximately 63 km east-southeast of Vernon. Locally, they are situated near the headwaters of the Kettle River, on Monashee Mountain, 3 km west-northwest of Keefer Lake and 2 km southeast of Yeoward Mountain (Figure 1).

The property is readily accessible from B.C. highway No. 6 at a point approximately 85 road kilometres east of Vernon. Here, the Keefer Lake Forest Access Road originates and is followed



Harold M. Jones & Associates Inc.	
DNA CLAIMS **LOCATION MAP** **Keefer Lake Area Vernon M.D., B.C.** **NTS 82-L-1W**	
Drawn By: H.M. Jones **Date: May 2, 2002**	**Figure No.** **1**

northeasterly for 9 km to a bridge crossing Kettle River. Instead of crossing the bridge, one continues straight ahead a few hundred metres on a narrow road, the Yeoward Mountain cattle road, then branch off to the north and follows an old cat road into the property. The latter is a good road but is now partially overgrown by second growth alder and requires brushing out. It provides access to the south and central part of the property.

The property is situated within an active logging area. A new road, originating from the Monashee Creek Forest Access road, follows Yeoward Creek southeasterly to and into the northern part of the DNA claims (see Figure 2).

Topography and Vegetation

The claims lie on the eastern end of Monashee Mountain, which is characterized by relatively steep slopes leading up to a rounded, relatively flat, north northwest-trending ridge top. Elevations range from approximately 1340 metres to 1650 metres. The central part of the property is located within an old burn, which is now covered by thick brush and, locally, very thick second growth fir and hemlock. The northern and northeastern part of the property has stands of commercial-sized fir, hemlock, pine and spruce. Flagging tape observed in these areas suggest that additional logging is planned within the claims area.

Property

The property consists of two coordinate grid claims totaling 24 units covering approximately 600 hectares (Figure 2). They are:

Claim name	Record No.	No. of units	Expiry date
DNA 1	310836	20	June 20, 2003*
DNA 3	310838	4	June 19, 2003*

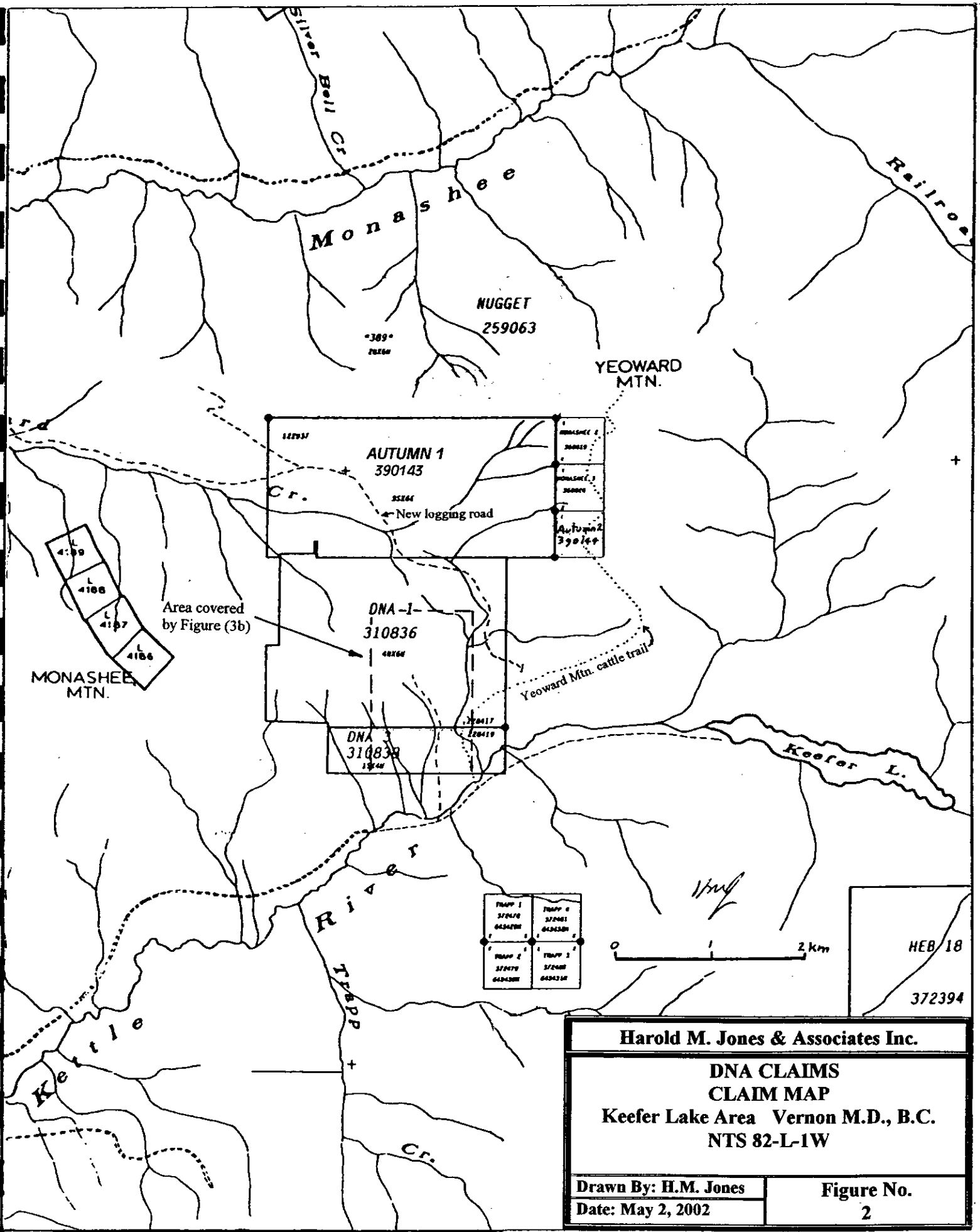
* Based on acceptance of this assessment report.

The claims are owned by Harold M. Jones, #86-5531 Cornwall Drive, Richmond, B.C. (90%) and Robert W. Yorke-Hardy, Box 298, Vernon, B.C. (10%).

History

The general area east of Vernon has a gold placer history dating from the 1870's to the present. Limited production came from a number of streams in the district. In proximity to the DNA claims placer mining was conducted on Monashee and Cherry Creeks, 14 km and 7 km respectively to the northwest; Barnes Creek 10 km to the southeast and Marsh Creek 5 km to the southwest of the property.

Veins mineralized with pyrite, chalcopyrite, galena and sphalerite with significant values in gold and silver were explored on the St. Paul Group, located on Monashee Mountain approximately 1.5 km to the west of the DNA claims. Intermittent mining from this property produced a small



Harold M. Jones & Associates Inc.	
DNA CLAIMS **CLAIM MAP** **Keefer Lake Area Vernon M.D., B.C.** **NTS 82-L-1W**	
Drawn By: H.M. Jones	**Figure No.**
Date: May 2, 2002	**2**

tonnage of both direct shipping and milling ores. The last production was in the mid 1970's. A site inspection by the writer (Jones) in 1973 noted the remains of a set of shaking tables (an attempt to recover free gold?)

Mineralization on the original Dona claims was located as a result of a district stream sediment sampling-prospecting program conducted in 1973 by El Paso Mining and Milling Company. A sediment sample taken from a small tributary of the upper Kettle River, near Keefer Lake, returned anomalous values in gold and arsenic. After follow-up sampling and prospecting confirmed the validity of the anomalous stream sample, El Paso staked the original Dona claims, then conducted a detailed soil survey over a part of the claims, the area of which now is mostly covered by the southeastern part of DNA 1 claim. The survey was successful in locating a large area anomalous in Au, Ag, As, and Pb. Assay values ranged up to 4.2 ppm Au, 6.2 ppm Ag, 2300 ppm As and 770 ppm Pb. The Au and As anomalies were respectively 670 m and 850 m long, while the Ag and Pb anomalies were 520 m and 365 m long, all of which were coincident. All were approximately elongate with the widest parts up to 200 – 215 m wide. Each element had smaller satellite anomalies on trend to the northwest and southeast of the main anomaly. The southeast end of the anomalous area terminated at the base of the ridge where deep glacial till fills the valley floor, the northwest end was open.

Background values were low for all elements except silver, which was unusually high at 1.5 ppm Ag. Figure 3(b) is a composite map showing the geochemical anomalous zone correlated with the surface geology and workings. The contours are 0.04 ppm Au and 150 ppm As. These values clearly defined the zone of interest and encompassed all of the highly anomalous assays.

In 1974 El Paso conducted a backhoe-trenching program accompanied by geological mapping and rock sampling to test the anomalous area. It was followed by airtrack-type percussion drilling which intersected a number of gold-bearing quartz stockwork zones. In 1975 El Paso ceased operating in British Columbia due to the political climate and transferred the claims to their former geologists.

Between 1982 and 1988 Keefer Lake Resources held the property under option and conducted intermittent exploration consisting of limited trenching, trench mapping and sampling, and soil sampling. Keefer Lake allowed the claims to lapse and they were immediately re-staked by the writer as the Donna 1-17 two-post claims.

In 1992 they were optioned to Phelps Dodge Corporation of Canada. They conducted a detailed geochemical survey over most of the property, duplicating much of that previously done by El Paso. Their results confirmed the presence of a large, coincident gold-silver-arsenic anomaly approximately 700 metres long by up to 215 metres wide. Limited trenching at the southern end of the claims by Phelps Dodge did not locate other zones of mineralization.

In 1993 Carbon Reef Resources Ltd. optioned the property and conducted a limited AQ diamond drilling program consisting of three holes totaling 177.44 metres. Very few sections of core were assayed. A more detailed drilling program could not be conducted due to lack of funds. Their report recognized the limited scope of their work and recommended that additional drilling was required.

During 1999 to 2001 the property owners conducted biogeochemical surveys primarily to test its effectiveness locating possible mineralized zones in mostly overburden-covered areas. The surveys to date have been encouraging and are reviewed in this report. For a full description of the 1999 and 2000 surveys, see References, which accompanies this report.

GEOLOGY

Regional Geology

The Monashee Mountain area is underlain by a northwest trending belt of Paleozoic sedimentary and volcanic rocks overlain to the north by Triassic sediments and volcanics, and intruded to the south by plutonic rocks of Jurassic age (Figure 3(a)).

The oldest rock unit in the area is the Carboniferous to Permian Thompson Assemblage (formerly Cache Creek Group). It includes sediments, volcaniclastic rocks and limestone pods, the individual members of which are interdigitated on a relatively fine scale. The sequence is believed to have undergone sub-greenschist facies metamorphism coeval with Jurassic-Cretaceous orogenic events, although some deformation may have preceded deposition of the Upper Triassic sediments.

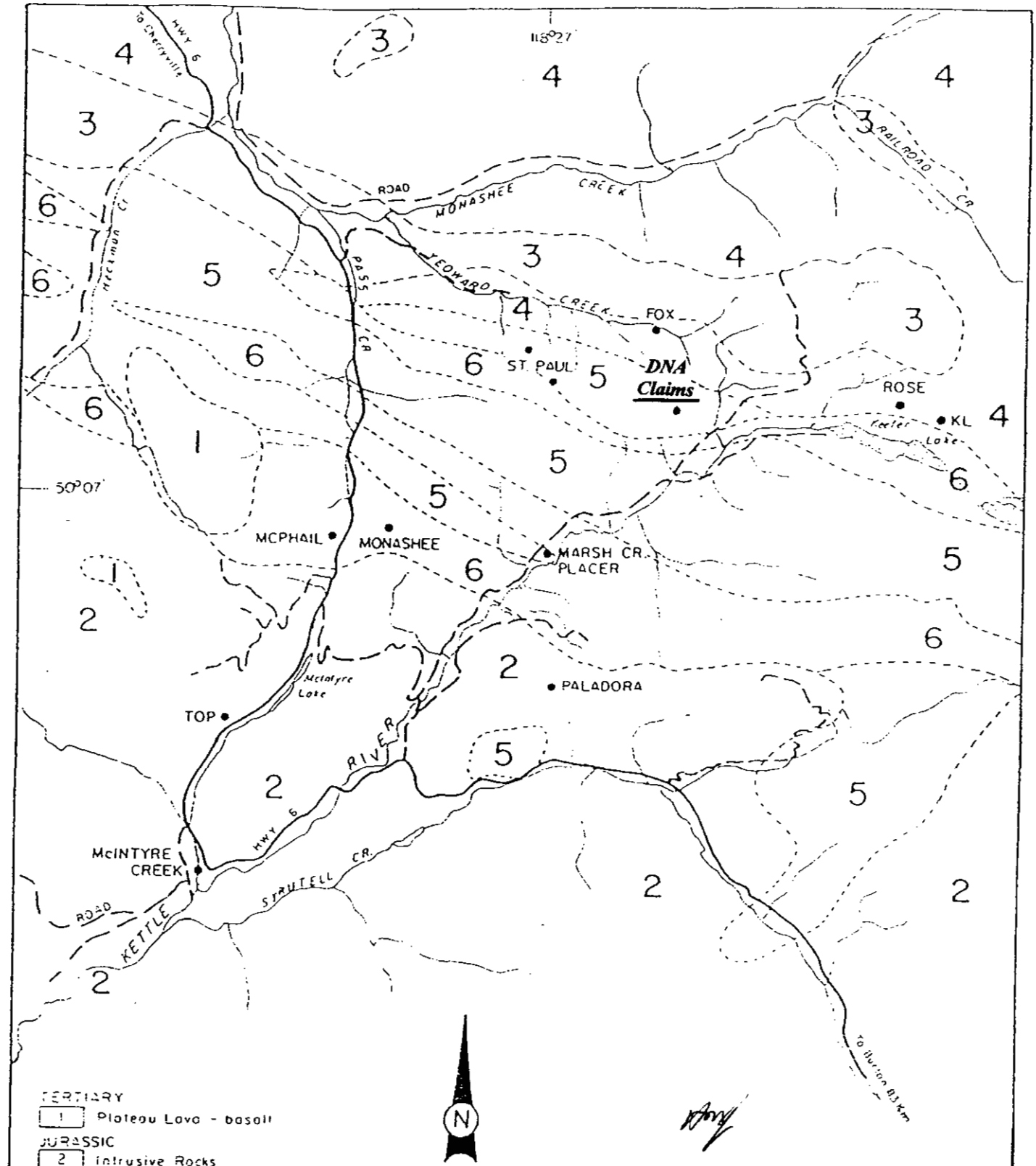
The Thompson Assemblage rocks are unconformably overlain to the north by a sedimentary formation belonging to the Slocan Group, as well as volcano-sedimentary rocks belonging to the Nicola Group. Metamorphism of these rocks is relatively low grade and, like in the assemblage to the south, is believed to be related to Mesozioc orogenic events.

To the south, the Thompson Assemblage has been intruded by plutonic rocks belonging to the Late Jurassic Valhalla Complex. These are predominantly granodiorites but their composition varies widely.

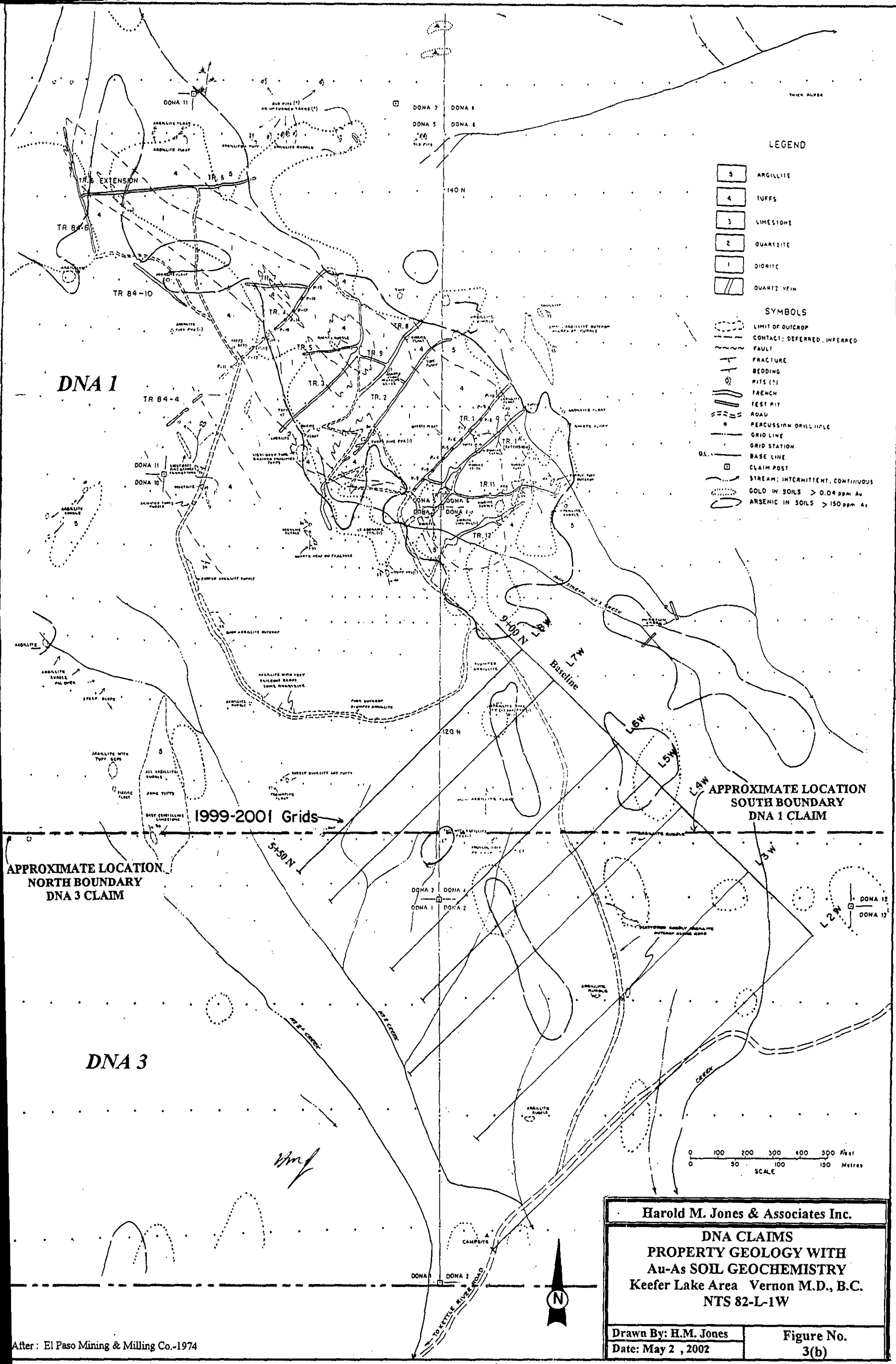
Locally, Tertiary plateau basalts overlie the above geology.

Property Geology

Outcrop is sparse on the property, consequently most of the geological information was obtained from the El Paso trenches (Figure 3b). The initial mapping by El Paso indicated that the property was underlain by northwest trending, interbedded limy argillites and tuffs, which were intruded by a sill-like dioritic unit. Due to variations in the diorite – colour, grain size, texture and alteration – it was difficult in the field, in places, to distinguish it from some of the volcanic (crystal tuff) units. Detail work by Smith (1986) identified quartz latite to dacite flows with interbedded calcareous sediments and tuffs, confirming that the dioritic body, in places, was actually flows which formed a part of a complex unit of flows, pyroclastics, and dioritic intrusives.



Harold M. Jones & Associates Inc.	
DNA CLAIMS **REGIONAL GEOLOGY** **Keefer Lake Area Vernon M.D., B.C.** **NTS 82-L-1W**	
Drawn By: H.M. Jones **Date: May 2, 2002**	**Figure No.** **3(a)**



Harold M. Jones & Associates Inc.

DNA CLAIMS
PROPERTY GEOLOGY WITH
Au-As SOIL GEOCHEMISTRY
Keefer Lake Area Vernon M.D., B.C.
NTS 82-L-1W

Drawn By: H.M. Jones	Figure No.
Date: May 2 , 2002	3(b)

After : El Paso Mining & Milling Co.-1974

Bedding attitudes are variable. In the southern trenches the strike varies from N10^0 - 60^{0}W, averaging about N30 ^{0}W, dipping 15^0-20^0 W. In the northern trenches the attitudes are similar, trending N30^{0}W and dipping at low angles to both the east and west.

All rocks in the district are partially skarnified with actinolite and clinozoisite the commonest alteration minerals in the sediments and limy tuffs. The alteration does not appear to be caused solely by the flows as these limy rocks are in themselves altered with epidote, clinozoisite, and lesser muscovite above and below the latites (Smith 1986).

Numerous quartz veins are present within the flows and dioritic units. The veins are commonly 2-75 mm in width with a few ranging from 15-30 cm in width. All veins are composed of massive white quartz, completely shattered, and bordered by hematite margins up to 4 cm wide for the wider veins. At the base of the hill, a highly fractured, hematitic vein up to 90 cm wide was exposed in trench 1A.

Smith (1986) noted "the sediments immediately below each flow (i.e. the original tops of each) tend to be rubble of tuffaceous material rich in lime with varying amounts of sulphides and quartz. The sulphides occur both as finely disseminated grains and in pods or masses parallel to the bedding. The sulphide pods consist of arsenopyrite with minor galena and pyrite with rare sphalerite and chalcopyrite".

Whether the mineralized zones are veins forming a stockwork or siliceous alteration zones related to flows is not clear. However, the end product is distinctive hematite-rich, stacked, stockwork-like zones within the intrusive/extrusive units. The veins (or silicified zones) are randomly oriented but the majority strikes between N20^{0}E and N45^{0}W and dip 20^0- 45^{0}W or SW. A small number of veins have a very low dip angle. Many veins appear to be following bedding (or shearing parallel to bedding) but some are related to crosscutting fractures or faults. The veins are very irregular in width and vary along strike from hairline fractures to commonly 6 cm in width, then horsetailing out into hairline fractures again. They often show offsets of 6-60 cm on crosscutting fractures.

MINERALIZATION

There are very limited surface indications of mineralization on the property. Very few, widely scattered outcrops of quartz and sparse quartz float were located during the original El Paso fieldwork. When the geochemical anomalies were trenched, it was noted that the underlying soil and rock, in the mineralized areas, were red-brown due to the abundant hematite alteration. Sections of the trenches devoid or very low in hematite were characteristically unmineralized.

A number of mineralized zones were exposed in the El Paso trenching program, with lesser in those by Keefer Resources and Phelps Dodge. Trenches by the latter companies were mostly located in fringe areas to the known, large, geochemicaly anomalous area. Mineralization consists of arsenopyrite, pyrite, and much less stibnite, galena, chalcopyrite, tetrahedrite-tennantite and sphalerite, occurring in quartz veins and silicified zones and occasionally in pods or irregular masses of the above sulphides. A mineralized zone consists of a number of parallel

veins or siliceous zones concentrated within a sill-like dioritic body, and commonly dipping at a low angle to the west. Many of these zones are exposed in the El Paso trenching. Channel sampling of the trenches returned values ranging from trace to 29.5 gpt Au and trace to 90 gpt Ag. Grab samples from some veins assayed higher.

In 1974 El Paso drilled 19 airtrack percussion holes totaling 980 metres. They were drilled along trenches 1 and 4, at 15 metre centers, as two fences 225 metres apart. They were planned to be drilled dry to a depth of 60 metres but approximately half of them had to be stopped due to excess moisture in these holes. All holes were sampled in 0.60 metre intervals and fire assayed for gold and silver. A number of sections in various holes assayed between 0.69 – 2.1 gpt Au. These were correlated between holes into west dipping, siliceous, mineralized zones. While most assays were low some of the higher trench values, over 60 cm lengths, were 35, 8.9 and 5.1 gpt Au.

While the drilling confirmed the stockwork nature of the mineralized zones, the drill assays did not repeat some of the significant values obtained from trench samples taken from the same zone. It was concluded that the airtrack drilling was not suitable for sampling the low grade mineralization discovered on the property and that any future sampling should be by diamond drilling.

2001 EXPLORATION PROGRAM

Procedure and Background Data

The grid used for the1999 and 2000 surveys was expanded to cover the southern portion of the DNA 3 claim. Grid lines 7W and 4W were extended southwest to near the property boundary and grid lines 3W and 2W were added to the southeast of the previous grid (see Figure 4). A total of 1900 metres of new grid lines were laid out using a Silva compass and hip chain. All lines were flagged with stations marked at 25 metre intervals. The previous years grids and the new lines were used for geological mapping, while the new lines were used for biogeochemical sampling. An error was noted in the 2000 grid. Line 8W should have been 50 metres grid west of 7W and 5W and 4W should have been 50 and 100 metres grid east of 6W. These line locations are now correctly plotted on the maps which accompany this report.

1. Geological Mapping

The intent of the mapping program was to attempt to determine the source of the silver, cadmium and arsenic which returned elevated assays in the 1999 and 2000 biogeochemical samples. It was also hoped that the source of gold and arsenic found in the El Paso soil samples previously taken in this area would be determined by the mapping.

As mentioned earlier, glacial till covers much of the property, particularly on the southern slopes where the grid is located. This made the search for outcrop very difficult. Most of the geology mapped occurs as angular rubble but is believed to represent bedrock at a very shallow depth. Unseasonable heavy snow with accumulations to one metre forced the termination of mapping

B.L. 9+00N (N 45° W)

L8 W

L7 W

L6 W

L5 W

L4 W

L3 W

L2W

8+00N

7+00N

6+00N

5+00N

4+00N

O.B.

hsf(+), 1 cm. qtz vnlets with 5% py, 1-2% py in hsf

+hsf(+), thin bedded

Old road

Till

Old trench hsf, thin bedded, vuggy qtz vnlets to 10 cm. FeO_x also 5% white aplite dykes parallel later qtz vnlets, py to 2%

shallow O.B.

LOW GLACIAL RIDGE

hsf +

hsf + 2% qtz vnlets

PDH

light green latite alt'd to chl. schist

Poor outcrop greywacke $FeO_x^{(+)}$, $MnO^{(+)}$

White latite

5% irregular qtz vnlets

Till

PDH

+5% vuggy qtz vnlets to 1.5cm.

aplitic layers 5% vuggy qtz vnlets to 1.5cm.

2-4% qtz vnlets $FeO_x^{(+)}$, $MnO^{(+)}$

Trace qtz vnlets

hsf

+5% qtz vnlets to 2cm.

Drift

Drift & till

O.B.

Deep O.B.

moraine

Poor outcrop hsf, 2% qtz vnlets, FeO_x

To Yeoward Mtn.

Argillite trace qtz vnlets

Drift & till

+hsf(+) +2% vnlets

Old cattle road

DNA Claims access road

PDH

+ Trace qtz vnlets

O.B.

O.B.

Shallow O.B.

Drift

O.B.

O.B.

1 Km. to Keefer Lake forest access road.

LEGEND

- Outcrop
- \+ Argillite, siltstone, sandstone rubble - near bedrock
- △ Latite rubble
- —O Proposed percussion drill hole
- Inferred anticline axis
- Road
- Creek

- O.B. Overburden
- qtz vnlets Quartz veinlets
- hsf Hornfelsed alteration
- $Fe\,O_x$ Limonite stain
- MnO Manganese stain

N

12°40'

0 50 100 METRES

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DNA CLAIMS GEOLOGY, GRID AREA Keefer Lake Area Vernon M.D., B.C. NTS 82-L-1W	
Drawn By: H.M. Jones Date: May 2, 2002	Figure No. 4

CHONG

on October 9, 2001. The geology observed in the grid area is described in the following sections and is shown on Figure 4.

(a) **Pleistocene Deposits**

Pleistocene till and/or drift cover much of the survey area. Most of the geology observed and noted on Figure 4 is located on the crest of a rounded ridge top where it is estimated till varies from one to two metres in depth. Till is thought to be much deeper on the flanks of the ridge, especially from grid 5+00 N to 0+00 N.

Deep moraine deposits underlie the northeast end of L3W and forms a broad ridge which trends southerly but swings westerly crossing Line 2W from 7+50W to 10+00W.

(b) **Carboniferous and Permian Thompson Assemblage**

The rocks underlying the survey area are predominantly metasediments and possibly minor latite flows of the Thompson Assemblage. They consist primarily of strongly hornsfelsed, thin bedded greywackes, siltstones and argillites, which beyond the immediate area of the grid show considerably weaker alteration. The strongly hornsfelsed rocks are hard and blocky as compared with the less altered ones which are friable and platy. Similar hornsfelsed metasediments are present in the mineralized sections of the old El Paso trenches.

(c) **Mineralization and Alteration**

The hornsfelsed metasediments are cut by quartz vein stockworks, occasional aplite veinlets paralleling those of quartz, as well as a number of open fractures, the latter of which may be the result of weathering out of calcite veinlets. Both the stockworks and the open fractures each represent up to 5% of the rock. These features appear to have been an early event since many are offset by later fracturing.

The metasediments are mineralized with 0.5 % up to 2% pyrite but it increases in these rocks in areas where quartz vein stockworks are most numerous. Pyrite is also present in the veinlets. Limonite and manganese staining are present in varying amounts and also increase in or near the stockwork zones. Orange limonitic soil forms a 100 to 200 metre colour zone over the length of the grid coincident with the crest of the ridge. This probably reflects the mineralized stockwork zone (see Figure 4).

An old trench, located at Line 8W, 6+90 N, had been backfilled but some of the rubble on surface is comprised of hornsfelsed metasediments along with pieces of rusty, vuggy quartz vein material up to 10 cm. wide. In some rubble narrow, white aplitic dykes parallel narrow quartz veins.

(d) **Structural Geology**

The attitudes of the metasediments cannot be measured with any degree of accuracy because of its rubbly nature and the lack of true outcrop. However, from sparse data, it is suggested that an

anticlinal structure is present whose axis is sub parallel to the exploration road, which runs up the hill crossing most grid lines. It is suspected that the topography approximates the anticline and that this structure plunges moderately to the south. If this is the case, then the strongly hornsfeled metasediments that have been mapped from Line 8W to Line 2W could represent the same stratigraphic horizon along the crest of the anticline (see figure 8).

2. Biogeochemical Survey

Previous biogeochemical sampling by Morrison (see Morrison 1987, 1991, 2000) in southern British Columbia found that deadwood twigs from lodgepole pine have a great affinity for silver, yielding silver values 10 to 20 times higher than the silver values from other tree species collected from the same area. He also found that ashed material from deadwood twigs from lodgepole pine yielded silver values 5 to 11 times greater than those from live wood twigs from the same trees and up to 40 times greater than silver values from other tree species. Based on his results, he used deadwood twigs from lodgepole pine in a past and the present survey on the DNA property.

Experimental biogeochemical surveys were conducted over small areas of DNA 1 & 3 claims in 1999 (Jones and Morrison, 2000) and in 2000 (Jones, 2001). The results were remarkable with silver values generally ranging from15 to 70 ppm Ag and the cadmium values from 30 to 90 ppm Cd.

Sampling Procedure

Using the previously described grid, deadwood twigs were collected from two to five trees near each sample site. Samples were taken from trees of equal size, which in the area were typically 20 cm diameter. Twigs 5mm to 10 mm in diameter were used, broken into 10 cm lengths and placed in plastic bags with sample identification tags. Each sample weighed about 190 grams.

Notes, taken at each sample site, included the tree size, amount of lichen and bark on the twigs (apparently they have no affect on Ag and Cd assay values), and slope of topography. A total of 26 samples were collected from parts of Line 2W, 3W and 4W and shipped to Acme Analytical Laboratories in Vancouver for standard ICP analyses of 30 elements. The laboratory procedures and assay results are listed in Appendix C.

It was planned to collect rock samples from selected parts of the grid where hornsfeled metasediments contained abundant quartz vein stockworks. This work had to be cancelled due to a heavy mid-October snowfall.

Results

Throughout this report the terms "significant" and "elevated" values are used to describe assay values greater than background values. Normally, such values would be considered anomalous. In the case of the described biogeochemical survey, limited sampling over a too small an area did not permit a meaningful statistical calculation for determining anomalous values

A review of the assay sheet for the 30 elements analyzed clearly indicates that only silver, cadmium and arsenic appear to be related to the altered and possibly mineralized stockwork zones in the metasediments. In previous surveys these were also considered the most important elements. The pattern of the remaining 27 elements did not appear to assist in locating or defining a mineralized zone. For this reason, figures were not plotted for these latter elements. It was noted in scanning these elements that a few assays are definitely elevated. Copper and lead have some assays greater than 200 ppm which are slightly correlative with high silver values. The assay procedure used is not sufficiently sensitive for low grade gold assays, consequently all gold assays were reported as 2 ppm Au and cannot be used. This was also the case in the previous surveys. Silver and arsenic especially along with cadmium are considered pathfinders for gold. The following is a summary of the more significant elements results:

(a) Silver

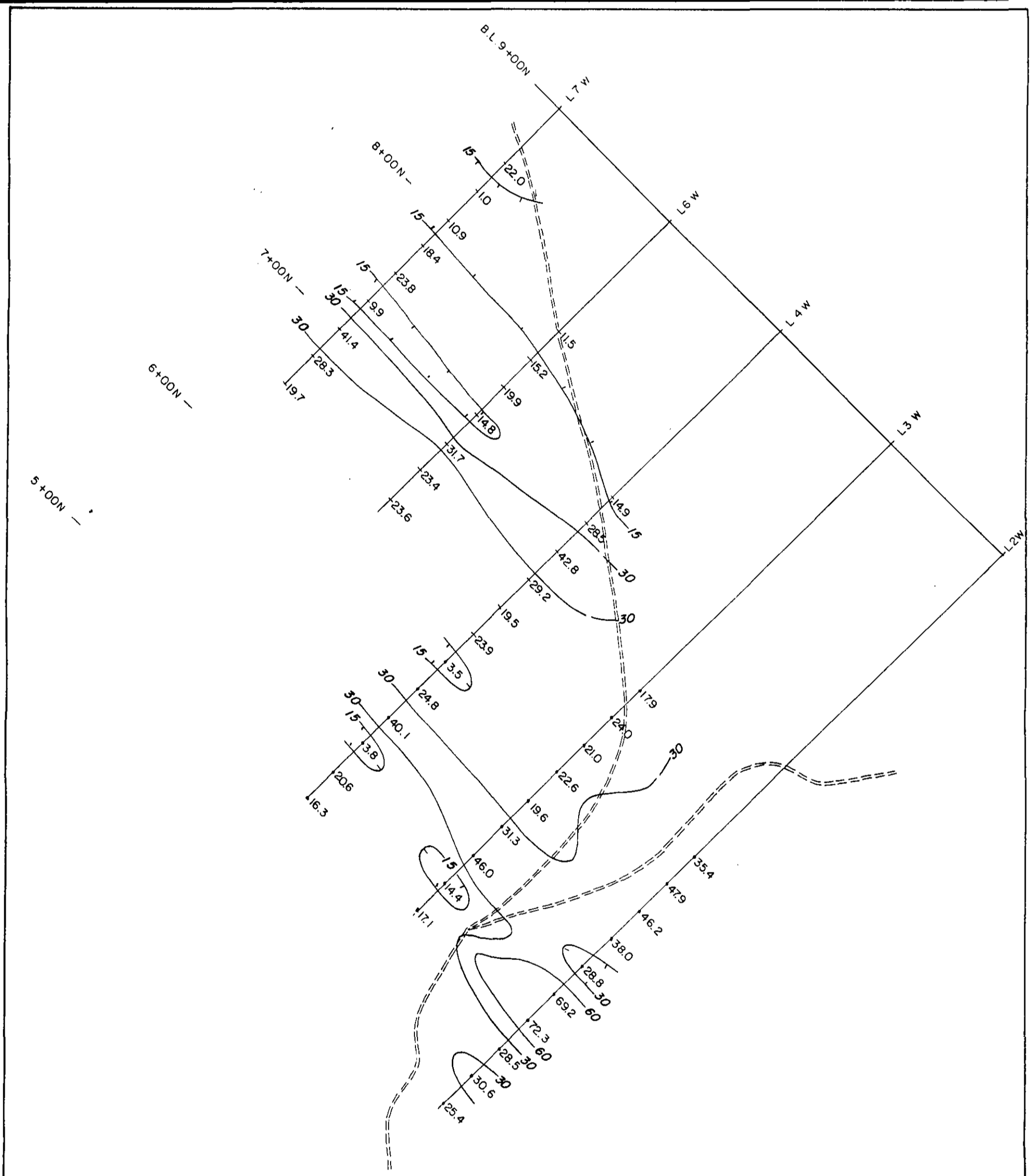
Silver values ranged from 3.5 ppm to 72.3 ppm Ag with most samples assaying between 15 ppm and 40 ppm Ag (Figure 5). They were arbitrarily contoured at 15, 30, and 60 ppm Ag (Figure 5). Silver assays in the grid area are high with most samples assaying >15 ppm Ag. Contouring defines a zone 200 metres long elevated in silver (>30 ppm Ag) centered over 7+00 N, extending from Line 7W to Line 4W. This zone trends through irregular elevated arsenic and cadmium contours showing coincidence at some sites.

A second linear elevated zone (>30 ppm Ag) extends 100 metres from Line 4W to Line 3W near 5+50N and expands into a 175 metre wide zone which covers most of Line 2W. The southern portion of the wide zone includes two sites which assayed respectively 69.2 and 72.3 ppm Ag (see Figure 5). This zone contains several sites with coincident elevated arsenic values and one site elevated in cadmium.

While silver contours show somewhat linear trends, cadmium and arsenic contours are irregular showing poor correlations with silver. The irregular dispersion pattern of all elements of interest may be due to downhill migration caused by water seeps(?).

(b) Cadmium

Cadmium values ranged from 33.8 ppm to 161.9 ppm Cd with most samples assaying between 51.3 ppm and 69.7 ppm Cd (Figure 6). They were arbitrarily contoured at 40, 60 and 90 ppm Cd (Figure 6). In general, higher cadmium values, as defined by the 60 ppm and 90 ppm Cd contours, are widespread but tend to occur on the perimeter of the survey grid. Exceptions to this are on Line 7W at 7+00N, and on Line 4W at 7+00N and at 5+50N where both silver and



Previous sample location

2001 sample location

30 Contour value in ppm

Road

Notes : Sample material - deadwood twigs from Lodgepole Pine.

Due to small number of samples, values considered as significant are called "elevated" (>15 ppm Ag)

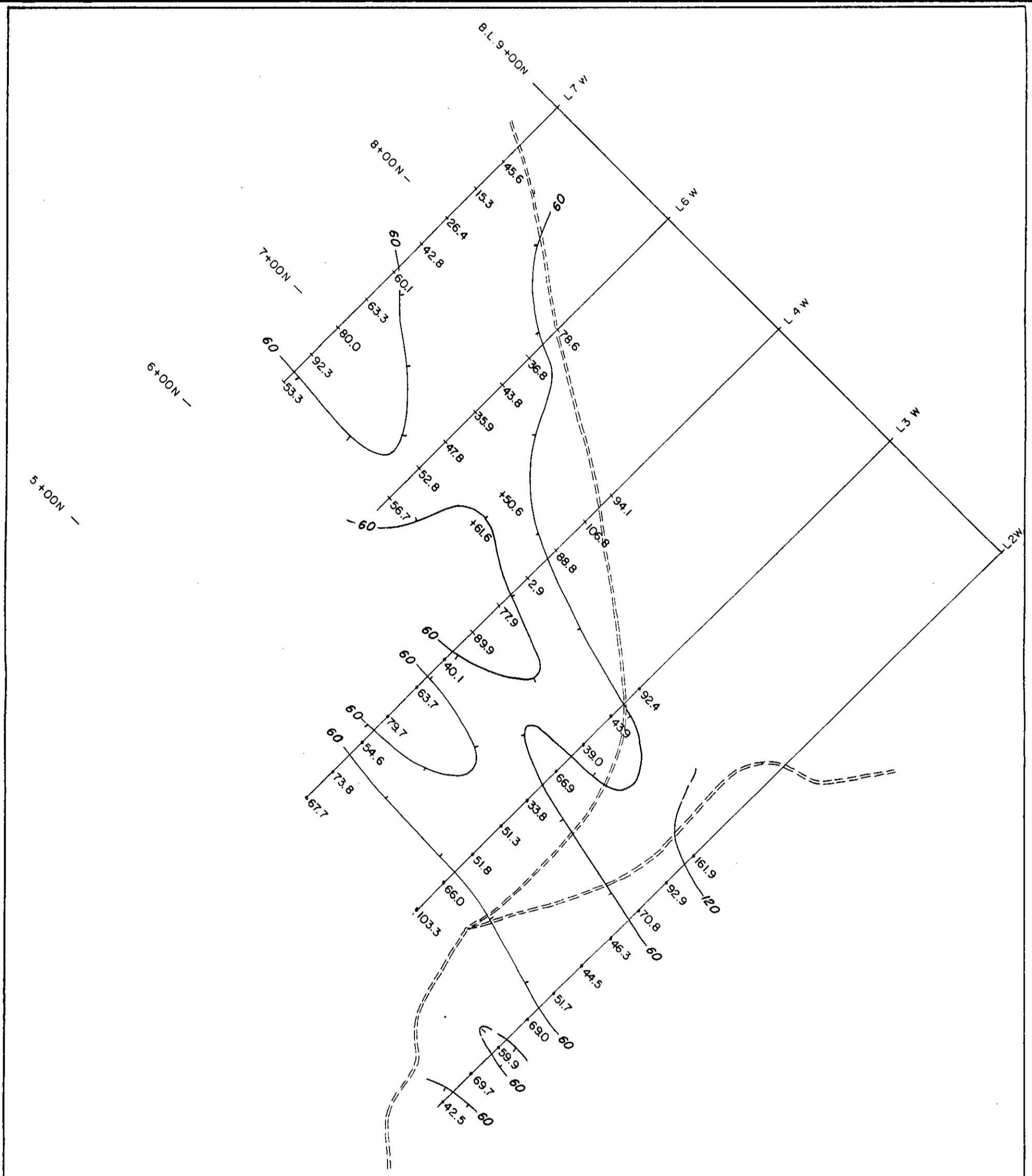
For grid location see Fig. 3b

CHONG

Harold M. Jones & Associates Inc.

Biogeochemical Survey
SILVER IN PPM
DNA CLAIMS
Keefer Lake Area Vernon M.D., B.C.
NTS 82-L-1W

Drawn By: H.M. Jones	Figure No.
Date: May 2, 2002	5



Notes : Sample material - deadwood twigs from Lodgepole Pine.

Due to small number of samples, values considered as significant are called "elevated" (>60 ppm Cd)

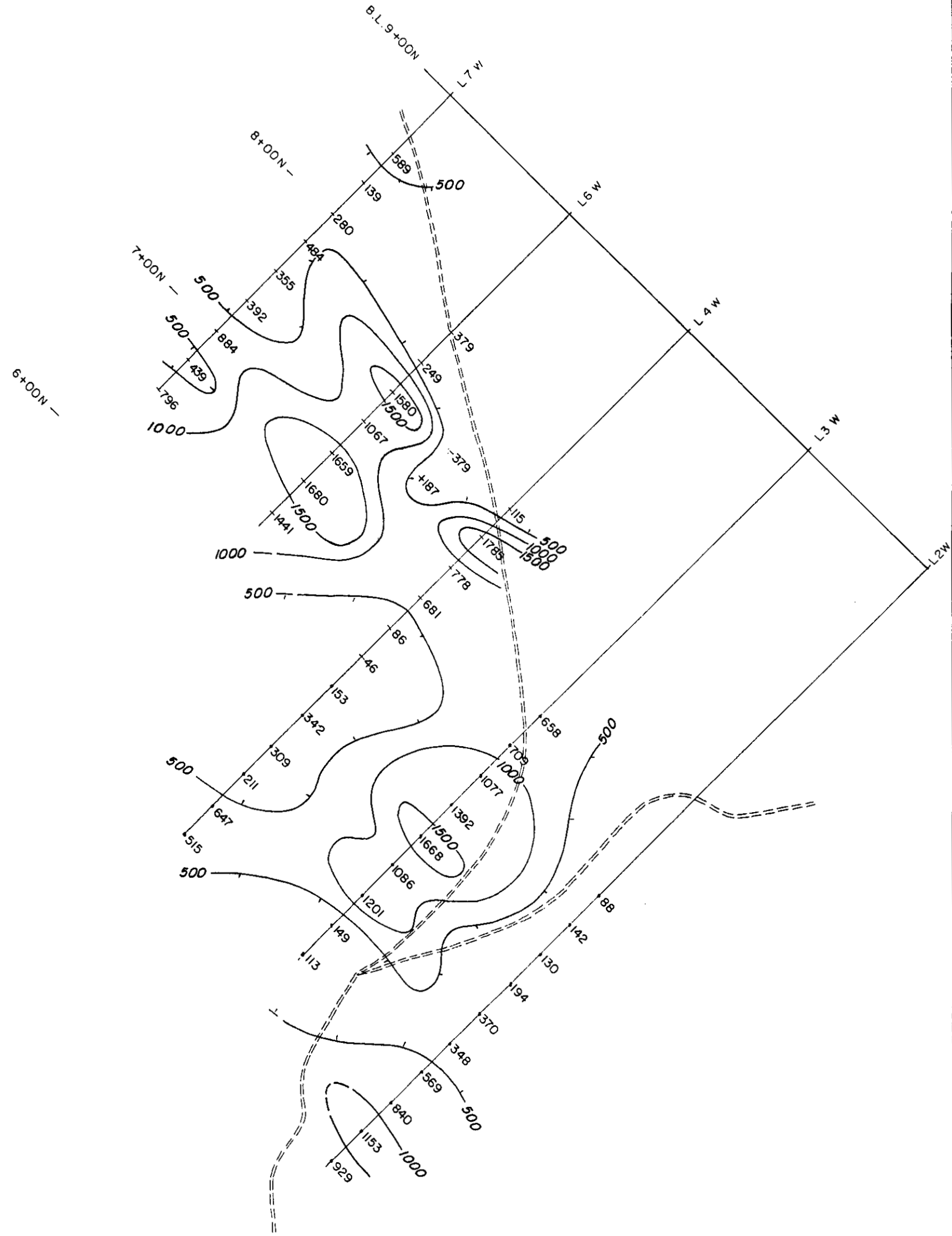
For grid location see Fig. 3b

Harold M. Jones & Associates Inc.

Biogeochemical Survey
CADMIUM IN PPM
DNA CLAIMS
Keefer Lake Area Vernon M.D., B.C.
NTS 82-L-1W

Drawn By: H.M. Jones	Figure No.
Date: May 2, 2002	6

CHONG



Previous sample location

2001 sample location

500 Contour value in ppm

Road

Notes : Sample material - deadwood twigs from Lodgepole Pine.

Due to small number of samples, values considered as significant are called "elevated" (>500 ppm As)

For grid location see Fig. 3b.

N

12°40'

0 50 100 METRES

Harold M. Jones & Associates Inc.

Biogeochemical Survey
ARSENIC IN PPM
DNA CLAIMS
Keefer Lake Area Vernon M.D., B.C.
NTS 82-L-1W

Drawn By: H.M. Jones	Figure No.
Date: May 2, 2002	7

CHONG

cadmium values are high (see Figure 6). Elevated values, in part, are coincident with areas of pyritic, hornsfelsed metasediment containing quartz vein stockworks.

(c) Arsenic

Arsenic values ranged from 88 ppm to 1668 ppm As with most background samples assaying between 111 ppm and 370 ppm As (Figure 7). They were arbitrarily contoured at 500 ppm, 1000 ppm and 1500 ppm As. There are two distinctive arsenic highs with values >1000 ppm As. They are located on Line 6W from 6+50N to 7+50N and on Line 3W from 5+25N to 6+25N. Two smaller highs with values >1000 ppm As are located on Line 4W at 7+25N and on Line 2W at 4+25N. Contouring does not develop any trends.

Only one site returned samples highly elevated in both arsenic and cadmium – 115 ppm As, 94.1 ppm Cd. It is located on Line 4W at 7+50N

Arsenic correlates well with the altered, pyritic metasediment rubble containing quartz vein stockworks. It is also poorly coincident with silver and cadmium. While none of the three elements plotted show good correlation their assay values indicate that the grid area is on or near an area of hydrothermal alteration with which gold may be associated.

DISCUSSION

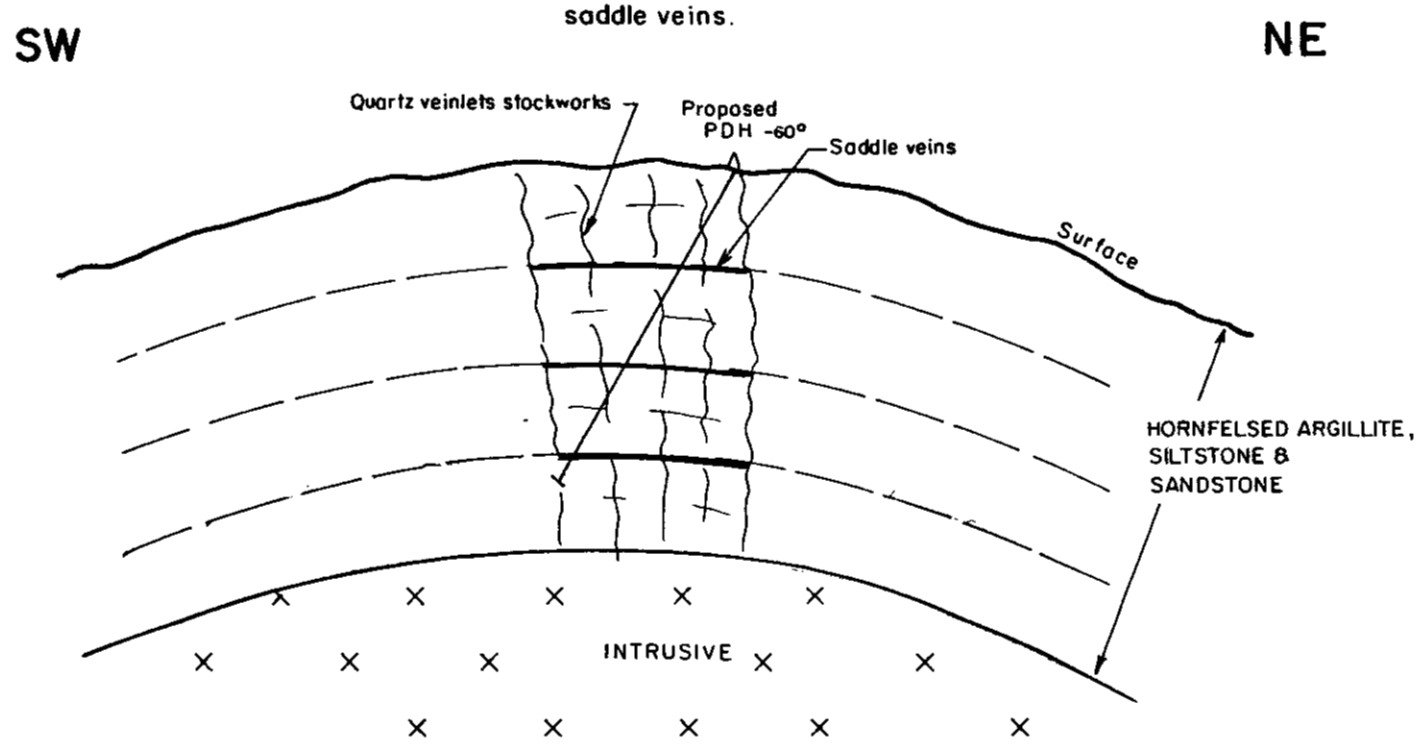
The zone of elevated silver values defined by the >30 ppm Ag contour extends 200 metres from Line 4W to Line 7W and may be projected to the old trench situated near Line 8W (Figure 4 and 5). This area is underlain by hornsfeled metasediments and latite containing the greatest concentration of quartz vein stockworks, estimated to be up to 5% of the rock, observed in the survey area. Pyrite also increases in this area in proximity to the quartz veins. The correlation of high silver values with the intensity of quartz veining is significant since, in the old El Paso trenches, significant gold, accompanied by silver, is present only in areas of quartz vein stockworks.

Elevated silver values, as defined by the > 30 ppm Ag contour, extend as a narrow band from Line 4W to Line 3W, then fan out into a broad area of elevated values on Line 2W. Meager metasediment rubble with quartz veins was seen in this area suggesting the silver values here are also related to quartz vein stockwork zones similar to that described above.

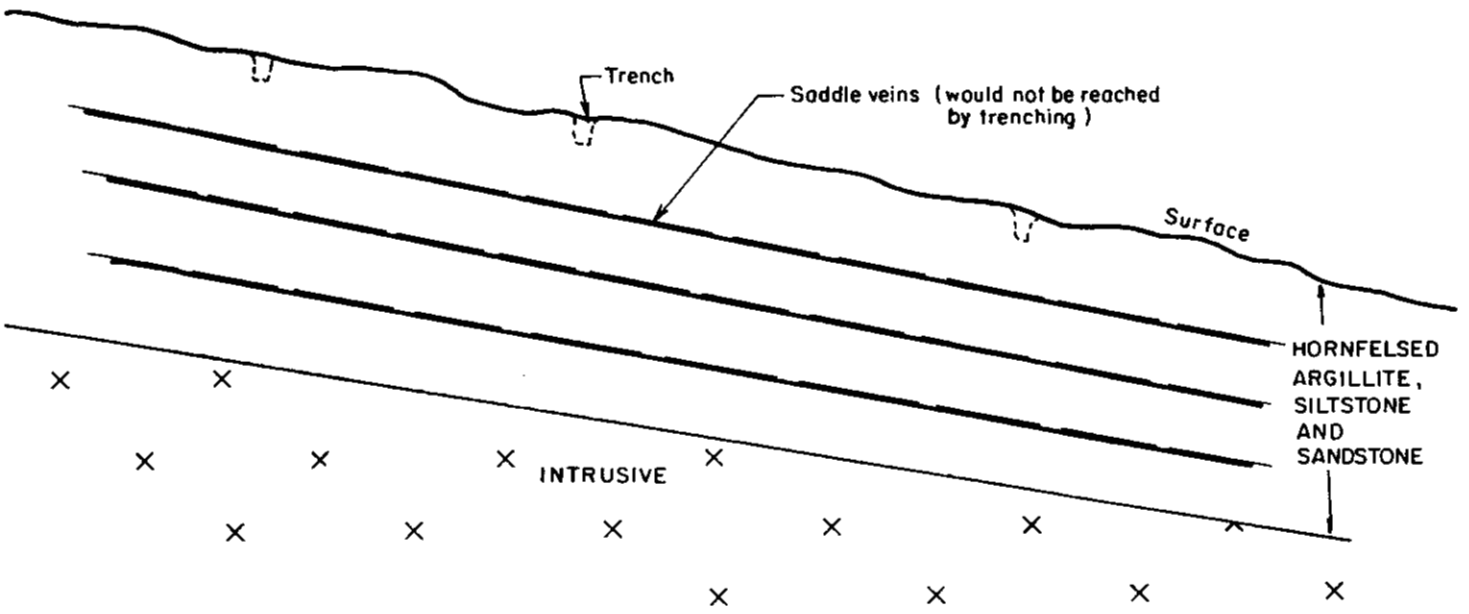
On Line 2W from 4+50N to 6+25 N the soil is generally limonitic and the silver assays high – 28.5 ppm to 72.3 ppm Ag. These features may indicate that overburden is very shallow in this area and that quartz vein stockworks may also be present here.

FIG. 8 : CONCEPTIONAL SKETCHES

A. CROSS SECTION – Inferred mineralized anticline, showing proposed drill hole to intersect stockwork veinlets and saddle veins.



B. LONGITUDINAL SECTION – Showing trenches would probably only test one horizon.



Drawn by M. Morrison, Feb. 2, 2002

CONCLUSIONS

It is concluded that the biogeochemical survey using deadwood twigs from lodgepole pine was successful in extending southward the area of elevated silver values on DNA 1 and 3 claims located during the 1999 and 2000 surveys. Arsenic and cadmium assays are poorly coincident with linear silver trends. Cadmium generally is peripheral to silver and arsenic "highs", while arsenic "highs" are more localized with no developed trends.

It is further concluded that the elevated values for silver and arsenic and to a lesser degree cadmium are directly related to the density of quartz vein stockworks and the increase in pyrite in hornsfeled metasediments. Their intensities may increase .on and adjacent to the crest of an inferred north to northwest trending anticline plunging southerly with the topography.

RECOMMENDATIONS

It is recommended that samples be taken of the rubble containing quartz vein stockworks and assay them for gold and silver. If results are positive, detailed prospecting should be conducted to the northwest along trend. If evidence of stockwork mineralization is present, the zone should be defined by detailed soil sampling. Twig sampling, using lodgepole pine, cannot be continued beyond the existing grid because it is mostly localized in the grid area. Beyond this area, balsam fir is the dominant vegetation.

Anomalous areas could be tested by backhoe trenching but this may be of limited value. If the inferred anticlinal structure is present and plunges with topography to the south, then all trenches excavated would probably expose the same near surface stratigraphic unit following the crest of the fold. Trenching would not give any information on other stratigraphic units (or saddle veins?) within the anticline. Assuming this is the case, follow-up testing should be done by percussion drilling. Angle holes would be used to intersect the known quartz veins as well as test for other possible mineralized units (Figure 8).

Respectively submitted,

Harold M. Jones, P.Eng.

May 2, 2001

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(1984) - Report on the Dona and Irene Claims, Vernon M.D., for Keefer Lake Resources Inc.

(1986) – Report on the Dona Property (Dona and Irene Claims), Vernon M.D., for Keefer Lake Resources Inc.

CERTIFICATE

I, Harold M. Jones, of the City of Richmond, British Columbia, do hereby certify that:

1. I am a Consulting Geological Engineer with an office at #86-5531 Cornwall Drive, Richmond, British Columbia.

2. I am a graduate from the University of British Columbia in Geological Engineering, in 1956.

3. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia (retired), Registration No. 4681.

4. I conducted and supervised the 1974 exploration program on the original Dona claims (now DNA claims) as an employee of the property owner, El Paso Mining and Milling Company and compiled all of their data on the property. I have also reviewed the results of all of the work conducted on the property since that of El Paso's.

5 I conducted the 2000 biogeochemical survey on the property and supervised the 1999 and 2001 surveys.

6. I own a 90% interest in the DNA Claims.

Dated at Richmond, B.C. this 2nd day of May, 2002.

Harold M. Jones, P.Eng.

APPENDIX A

Statement of Expenditures

The following are expenditures related to the biogeochemical survey conducted on the DNA Claim Group, located 45 kilometres southeast of Lumby, B.C. (NTS 82-L-1W) for the year 2001.

Geological mapping		
M.S. Morrison, B.Sc. – grid layout and geological mapping 4 days @ $267.50/day	$1,070.00	$1,070.00
Biogeochemical Survey - 650 metres		
M.S. Morrison, B.Sc. – collect 26 samples, 2 days @267.50/day	535.00	535.00
Expenses		
Truck rental, including insurance, 7 days @ $53.50/day	321.00	
Gasoline	206.00	
Meals and lodging – one day only, no charge for other days	80.00	
Bus express on samples to lab	15.32	
Assays – by Acme Analytical Labs., 26 samples for 30 element by ICP @10.70/sample	278.20	900.52
Report and Map Preparation		
H.M. Jones, P.Eng. – report, two days @ $300/day	600.00	
Plotting and drafting data	240.75	
- Secretarial	100.00	940.75
	sub total	$3446.27
Transfer from PAC account of Harold M. Jones		$1353.73
Total Assessment Costs		$4,800.00

I certify that the preceding Statement of Costs is a true statement of monies expended on conducting and reporting on the Geological Mapping - Biogeochemical Survey conducted on the DNA claims during the period September 30 to November 19, 2001.

Harold M. Jones, P.Eng.

APPENDIX B

Assay Certificates

ACME ANALYTICAL LABORATORIES LTD. (ISO 9002 Accredited Co.) 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Harold M. Jones & Associates Inc. PROJECT DNA File # A104203

86 - 5531 Cornwall Drive, Richmond BC V7C 5N7 Submitted by: M.S. Morrison

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Ash gm	Sample gm
L4+00W 7+50N	2	142	71	1694	14.9	60	9	4794	.58	115	<8	<2	<2	884	94.1	<3	<3	12	21.26	1.254	4	18	4.38	228	.02	464	3.52	.08	3.17	<2	1.75	195
L4+00W 6+00N	3	133	152	2920	3.5	32	7	14698	.76	153	<8	<2	2	1251	40.1	4	<3	15	22.24	1.654	4	16	1.90	71	.02	354	.74	.10	4.33	10	1.76	193
L4+00W 5+75N	4	158	293	2758	24.8	50	9	9411	.95	342	<8	<2	2	1029	63.7	9	<3	20	20.79	1.443	7	26	3.20	89	.03	555	1.97	.18	4.99	<2	.92	200
L4+00W 5+50N	4	216	282	2742	40.1	53	9	13911	1.21	309	<8	<2	2	1389	79.7	6	<3	24	18.73	1.923	8	31	3.64	54	.04	668	2.61	.14	3.99	<2	.71	187
L4+00W 5+25N	6	219	260	2417	3.8	41	10	8575	1.03	211	<8	<2	3	1050	54.6	9	<3	23	21.08	1.745	8	28	3.06	93	.04	534	2.46	.16	4.26	<2	.82	182
L4+00W 5+00N	3	170	137	2277	20.6	39	9	5860	.87	647	<8	<2	2	900	73.8	3	<3	18	21.18	1.701	6	22	2.41	92	.03	473	2.96	.15	3.86	<2	1.01	174
L4+00W 4+75N	4	183	138	2552	16.3	30	8	4801	.83	515	<8	<2	2	835	67.7	5	<3	16	22.76	1.527	5	18	2.08	312	.03	478	1.37	.11	3.01	10	1.41	189
L3+00W 6+75N	2	191	133	2725	17.9	110	11	8277	.88	658	<8	<2	3	945	92.4	5	<3	17	21.09	1.863	7	30	3.95	89	.03	501	2.49	.12	3.86	<2	1.18	194
L3+00W 6+50N	3	172	178	1909	24.0	60	8	5490	1.28	709	<8	<2	2	841	43.9	5	<3	24	20.53	1.789	8	39	1.64	102	.04	391	2.26	.16	3.68	<2	.99	197
L3+00W 6+25N	3	143	141	1790	21.0	57	6	6662	1.01	1077	<8	<2	3	720	39.0	7	<3	19	21.65	1.395	7	30	1.74	140	.04	405	2.63	.13	2.92	<2	1.28	195
L3+00W 6+00N	5	180	198	2454	22.6	61	9	9938	1.05	1392	<8	<2	2	886	66.9	4	<3	21	20.88	1.600	7	42	2.30	138	.04	590	1.89	.13	3.38	6	.71	198
L3+00W 5+75N	6	169	155	1939	19.6	59	7	7808	.99	1668	<8	<2	4	949	33.8	9	<3	18	21.29	1.657	6	53	2.20	107	.03	512	1.44	.13	3.19	11	.90	196
L3+00W 5+50N	3	140	194	2209	31.3	56	5	7498	.93	1086	<8	<2	2	825	51.3	9	<3	21	21.58	1.335	6	26	2.07	179	.04	524	1.58	.14	4.20	10	1.31	195
L3+00W 5+25N	4	139	172	1710	46.0	41	7	4763	1.18	1201	<8	<2	2	885	51.8	10	<3	24	20.46	1.523	7	33	1.75	117	.04	451	1.81	.14	2.99	10	1.04	171
L3+00W 5+00N	2	184	187	2040	14.4	39	7	5866	1.10	149	<8	<2	2	993	66.0	4	<3	22	20.92	1.651	7	26	2.24	92	.04	323	2.81	.09	2.80	<2	1.22	192
L3+00W 4+75N	2	148	94	2051	17.1	18	6	6355	.74	113	9	<2	<2	888	103.3	3	<3	13	23.22	1.207	6	25	1.67	339	.03	382	1.90	.09	3.16	9	1.23	199
RE L3+00W 4+75N	2	145	99	2001	16.9	18	6	6167	.73	111	<8	<2	2	870	101.1	4	<3	14	22.76	1.186	4	23	1.63	342	.03	371	1.85	.08	3.09	10	-	-
L2+00W 6+25N	4	210	71	2445	35.4	39	8	5790	.51	88	<8	<2	<2	959	161.9	<3	<3	9	24.11	1.199	3	18	2.91	204	.02	403	1.55	.06	2.13	9	1.11	195
L2+00W 6+00N	2	239	249	2586	47.9	58	8	15058	1.09	142	<8	<2	3	1177	92.9	6	<3	21	19.73	1.799	6	38	3.65	99	.04	542	2.25	.11	5.28	<2	.68	186
L2+00W 5+75N	2	168	248	2655	46.2	50	8	14746	1.07	130	<8	<2	3	1075	70.8	3	<3	20	20.03	1.534	7	32	2.87	77	.04	423	2.08	.10	3.86	<2	.83	181
L2+00W 5+50N	3	157	266	1893	38.0	42	8	10139	1.21	194	<8	<2	3	857	46.3	7	<3	24	16.60	1.568	8	24	2.07	107	.04	477	1.72	.12	3.84	10	.99	182
L2+00W 5+25N	2	223	166	2262	28.8	37	7	9280	.95	370	<8	<2	2	931	44.5	5	<3	19	21.40	1.848	6	39	3.51	318	.04	431	1.47	.12	4.66	10	.80	194
L2+00W 5+00N	1	258	178	2738	69.2	42	9	9654	.80	348	<8	<2	2	1269	51.7	7	<3	16	19.63	2.102	8	42	3.11	193	.04	636	1.99	.10	8.18	<2	.47	198
L2+00W 4+75N	4	157	152	2183	72.3	96	5	2436	.60	569	<8	<2	3	1087	69.0	7	<3	13	25.34	.878	4	21	1.54	216	.03	513	.68	.12	3.68	<2	.89	197
L2+00W 4+50N	4	204	216	2284	28.5	88	9	8525	1.13	840	<8	<2	2	1070	59.9	5	<3	23	19.94	1.723	8	38	2.83	126	.05	436	1.75	.14	4.45	9	.87	195
L2+00W 4+25N	2	203	167	2703	30.6	43	8	11685	.90	1153	<8	<2	2	1245	69.7	5	<3	19	20.26	1.612	6	28	3.34	64	.04	530	2.56	.13	4.31	<2	.80	184
L2+00W 4+00N	3	182	215	2163	25.4	40	8	6468	1.35	929	<8	<2	2	834	42.5	5	<3	27	16.72	1.682	9	36	2.03	64	.04	324	2.68	.15	3.62	<2	.95	169
STANDARD DS3	9	124	36	161	.4	35	12	824	3.23	34	<8	<2	5	28	5.8	4	5	81	.56	.099	18	188	.62	158	.08	4	1.76	.04	.17	5	-	-

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: TEIGS VA80 Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: NOV 29 2001 **DATE REPORT MAILED:** Dec 10/01 **SIGNED BY.....** D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA