BRITISH COLUMBIA

PROSPECTORS ASSISTANCE PROGRAM

MINISTRY OF ENERGY AND MINES

GEOLOGICAL SURVEY BRANCH

PROGRAM YEAR:	1998/99
REPORT #:	PAP 98-33
NAME:	ALAN RAVEN

Rec'd Nov 25/98

BRITISH COLUMBIA
PROSPECTORS ASSISTANCE PROGRAM 1998

AREA: DOMINION CREEK

NTS 93H/6E and 7W

TECHNICAL REPORT (Outline)

Name: Alan Raven Reference #98/99 P68

LOCATION/COMMODITIES

Project area: Dominion Creek

Location of project area NTS 93H/6&7 Latitude 53° 27′ N Longtitude 121° 17′ W

Description of location and access: The area is located about 110 kilometres southeast (117°) of Prince George. It is accessed by logging road to the target area.

Main commodities searched for: gold hosted in quartz and quartz-carbonate veins and replacements in the limestones

Known mineralization in the project area: this is the only known "deposit" in the area

WORK PERFORMED

As outlined in the attached report;prospecting,geological mapping and geochemical surveys a total of 23 pan concentrate samples, 40 soil samples and 30 rock samples (7 not yet analyzed)

SIGNIFICANT RESULTS: excellent results as outlined in the attached report.

BRITISH COLUMBIA
PROSPECTORS ASSISTANCE PROGRAM 1998

AREA: DOMINION CREEK

NTS 93H/6E and 7W

ALAN RAVEN Reference number 98/99 P68

DOMINION CREEK EXPLORATION PROGRAM 1998

OBJECTIVES

The objectives of the 1998 program were:

a) To review the previous geological mapping by Noranda to see if it was complete and accurate.

b) To locate and map as many mineralized boulders as possible in an effort to see if clusters or boulder trains could be outlined and hopefully lead to insitu mineralization.

c) To investigate previously unexplained soil geochem anomalies outlined by the Noranda sampling.

d) To do an orientation heavy mineral and silt sampling survey in the area of known mineralization amd extend the sampling to the south.

GEOLOGICAL MAPPING OVERVIEW

Observations:

A field review of the previous mapping carried out by Noranda as filed in their assessment reports indicates that there are significant outcrops along Discovery Creek and Dominion Creek which are not plotted on their maps. Some rock cuts exposed along the drill access roads are not mapped. Also detailed prospecting along the west slope of the Dominion Creek valley located a number of locally derived rubble and sub-outcrop areas which were not mapped by Noranda. Other priorities and limited financing did not allow for time to conduct mapping during 1998

Previous mapping and drilling by Noranda has not clearly indicated if there is a lithological control on the location of the mineralized veins although there is some suggestion that the best veins are developed within a black, fine grained limestone unit. The writer thinks that a property geological mapping program should provide a much better picture of the distribution of this unit and would help in determining how this unit is in controlling the location of mineralization. The importance of the southeast-northwest trending structures has been noted in the past. More complete mapping should help better define the location of these structures and other potentially important cross structures. In addition, mapping will undoubtedly outline further occurences of quartz vein rubble or outcrops to be sampled.

GEOCHEMISTRY

As the geochemical surveys conducted by Noranda were carried out over 10 years ago using only a flagged grid it was necessary to spend considerable time in relocating the key sample sites. Fortunately after extensive searching in the dense bush enough sample site markers were located to re-establish the location of the anomalous areas (this was done by Brennan and myself on the first trip). However because the Noranda sampling was in part not detailed enough additional sampling was required to reconfirm and better outline the anomalies. The samples collected in 1998 are plotted on fig. 2 . For convienence only gold, lead and zinc are plotted. The complete results are included in the appendix. It should be noted that there is a significant location error in the plotting of the southern part of the Noranda grid. A more correct location of the grid is shown in fig. / . The location error on the Noranda grid appears to be a combination of a compass error in the layout of the southern part of the Noranda base line and the error caused by the use of the photocopy blowup of the 1:50,000 topo map on which they plotted their data.

The 1998 sampling has reconfirmed the Noranda anomalies and better defined the location. In fact the anomaly located on line 8000N 10080E is on the east side of Dominion Creek rather than on the west side as ttheir map would indicate.

BOULDER SURVEY

The boulder survey successfully outlined at least three areas of mineralized quartz concentration, two of which were not previously recognized and the location of a large float 2000 metres upstream and up-ice of the Main Zone. Boulder cluster #4 is a large group of floats 1700 metres upstream of the Main Zone and in the immediate vicinty of both a good soil anomaly and the highest pan con samples found this year.

PROPERTY DESCRIPTION

LOCATION AND ACCESS

The Dominion Creek property is located along Dominion Creek, tributary of Haggen Creek, near Clear Mountain in the Cariboo Mining District of central British Columbia. The central part of the property, the South Zone , is situated at 1,460 m. a.s.l., on UTM coordinates 5923500mN and 615000mE.

The property is situated along the western edge of the Cariboo Mountains in an area where local relief varies from 1,160 to 1,860 m. a.s.l. The terrain across the property slopes moderately to steeply along Dominion Creek between the 1,220 m. and 1,520 elevations, and the slopes are moderate above the 1,520 m. elevation. Most of the property is forested with mature spruce and balsam fir and is covered with a moderate to dense underbrush of dwarf willow, huckleberry and devilsclub.

The property is located on NTS map 93H/6 approximately 43 km.north-northeast of Wells and about 110 km. east-southeast of Prince George. Access from Prince George is by Highway 16 East to the Bowron Forest Road then southerly to km. 85 then on the Narrow Forest Road to km. 104 then easterly on the Haggen Forest Road to km. 22 then southeasterly on the old Rustad road to the last cut block and then by the old Noranda access road to the property. The final 13 km is not gravelled and a 4-wheel drive vehicle may be required to access the property.

CLAIM STATISTICS:

The claims consist of modifed grid and two post claims as described below (total 59 units):

CLAIM NAME	RECORD #	UNITS	EXPIRY DATE
AK. I	205239	10 (mod. grid)	Aug. 8, 2003
AK. II	205240	15 (mod. grid)	Aug. 8, 2003
AK. III	205241	1 (mod. grid)	Aug. 8, 2003
AK. IV	205242	3 (mod. grid)	Aug. 8, 2003
AK. 7	353532	1 (2 post)	Feb. 4, 1999
AK. 9	353533	1 (2 post)	Feb. 4, 1999
AK. 10	353534	1 (2 post)	Feb. 4, 1999
AK. 11	353535	1 (2 post)	Feb. 4, 1999
AK. 12	353536	1 (2 post)	Feb. 4, 1999
AK. 13	353539	1 (2 post)	Feb. 4, 1999
AK. 14	353537	1 (2 post)	Feb. 4, 1999
DOM 4	354277	20 (mod. grid)	Feb. 20, 1999
DM 18	354283	1 (2 post)	Mar. 13, 1999
DM 19	354284	1 (2 post)	Mar. 13, 1999
DM 20	354284	1 (2 post)	Mar. 13, 1999

PREVIOUS WORK

1986 - claims staked by N. Kencayd
1986 - claims optioned by Noranda - geological mapping, soil geochem
1987 - Noranda - soil and stream goechem, geological mapping, diamond drilling, trenching.
1988 - Noranda - diamond drilling
1989 - Noranda returned the property to the prospector (Kencayd)
1989 - Raven purchased the property from the prospector
1989 - Raven - exposed the South Zone and stock piles ore grade material
1990 - Raven/Aquila Resources J.V. - begin clearing and stockpiling ore for bulk sample
1991 - Raven - property is idle
1992 - Raven/Aquila J.V. - complete mining and milling of bulk sample
1993 to 1998 - Raven - property was idle
1998 - Raven - prospecting, geological mapping and geochem survey of streams

REGIONAL GEOLOGY

The property lies in the Cariboo Mountians of the Omineca belt. The regional geology is comprised of Upper Proterozoic to Cambrian continental margin sediments including quartzite, sandstone, siltstone, shale and limetone. The area has been mapped at a scale of 1 inch to four kilometres (Map 1356A) and studied in Paper 72-35. Struik (1986) considers these rocks part of the Cariboo sub-terrane which is part of the displaced continental margin sediments.

These rocks have been grouped with the Upper Proterozoic Windermere tectonic assembage, consisting of mainly continental margin sediments of the Lower Gog tectonic assemblage, which consists of rifted and passive continental margin sediments. On the property only rocks of the Isaac and Cunningham Formation (Windermere assemblage) are exposed.

The area has been deformed into a series of northwest plunging major fold structures. The northwest trending Isaac Lake Fault which roughly cuts through the centre of the property separates the Isaac Lake Synclinorium to the east and the Lanezi Arch or Anticlinorium to the west. This deformational episode appears to have resulted in folding of the deeper, older formations whereas younger, high level formations display more fault dominated structures. This is probably a function of the physical characteristics (less competent shales at depth) of the rocks and the higher temperatures at depth. The rocks display low-grade metamorphic effects.

PROPERTY GEOLOGY:

The property is underlain by the rocks of the Isaac and Cunningham Formations. The Isaac Formation consists predominantly of dark grey to black, fine grained, finely laminated, fissile, phyllitic to slatey argillite. It is variably graphitic, calcareous and pyritic. Pyrite forms medium to coarse grained cubes with shadows of quartz or calcite. Lesser amounts of grey siltstone and quartzite are interbedded with the argillite. Grey to black micritic limestone also forms a major component of the Isaac Formation, especially near the upper gradational contact with the Cunningham Formation. This limestone may be finely interbedded with the argillite or form individual beds up to 25 - 30 metres thick increasing in proportion of limestone upwards towards the Cunningham Formation. The overlying Cunningham Formation consists of massive to faintly laminated, micritic to finely crystalline, medium grey limestone with minor interbeds of graphitic argillite.

In general the bedding attitudes are consistently northwest to west-northwest and moderate to steeply dipping southwestward. A southeast plunging anticlinal axis was mapped on Dominion Creek near the east edge of the property. In the vicinity of the AK claims LCP , bedding trends have shifted to a east-west orientation.

A major northwest trending fault cuts through the centre of the property and is evidenced by topographic lineaments and abrupt lithological contacts. This structure is thought to be the extension of the Isaac Lake Fault and strikes at about 145 degrees. Several smaller faults trending at about 155 degrees have been mapped and are believed to be splayes of the Issac Lake Fault.

Two prominent jointing sets were measured. The first cut is generally parallel to foliation, which is usually parallel to bedding. The second set is generally perpendicular to the foliation and dips steeply to the east. These fractures are generally filled with a network of thin quartz and/or calcite veinlets.

BOULDER SURVEY

Observations:

One of the notable geological features of the Dominion Creek area is the amount of quartz and quartz-carbonate vein material, both in outcrop and boulders. This is especially noticeable along Dominion Creek. Obviously not all of these veins are mineralized although many of them have a misleading rusty surface colouration. At first it seems like an overwhelming sampling problem to determine which veins carry gold. In an effort to prioritize the sampling of the quartz vein material, the detail features of the gold bearing quartz were noted. Assay results from the drilling and trench samples were correlated with the remaining core, trench outcrops, pit area exposures and assays from the first trip of this year.

The following observations were made:

a) The presence of visible base metal sulphides and/or pyriteis almost a sure fire positive indicator for the presence of gold. Even minor amounts of these sulphides can indicate high gold values.

b) The lack of visible sulphides is not necessarily negative, since some white sulphide free veins cut by drilling carried high gold values. It seems that this favourable quartz has a "sparkly" fine crystalline nature to it as opposed to the more massive barren bull quartz and the quartz-iron carbonate veins that are also abundant. Once one has developed the "eye" for this "sparkly" type of quartz then pickng out the gold bearing quartz is much easier. As well, the sulphide distribution within the mineralized veins can be quite patchy with the sulphides restricted to one side of the vein in stringers or patches. Sometimes it is necessary to break and study vein outcrops or boulders very thoroughly before one can detect sulphides as they can be highly weathered or look very similiar to the patches of graphitic schist caught up in many of the veins. In this regard a large hammer and a good backswing is recommended.

Some ten days (20 man/days) were spent in detail examination and tracing of the quartz boulders along the creek valleys. The extremely low water levels in Dominion Creek allowed the examination of boulders that would normally be under water. Detail prospecting along the slopes of Dominion Creek in the areas of the unexplained soil geochem anomalies was also done.

RESULTS OF THE BOULDER SURVEY

QUARTZ

In Dominion Creek the quartz material is in much greater abundance than is normal for the region, especially quartz containing sulfides. After a few days of working in the creek and Main Zone area we decided that there are three types of quartz vein material on the property. The three "types" are :

Type 1 - which is quartz-carbonate vein material formed as "sweats" in the dilation zones of the structurally deformed sediments.

Type 2 - which is quartz vein material without any appreciable carbonates nor readily visible sulphides. I have called this "sparkly" quartz to help differentiate it from the type 1 quartz.

Type 3 - which is "sparkly" quartz with obvious sulphide content.These sulphides may be galena, sphalerite, chalcopyrite or iron pyrite which may occur in any combination. (Type 2 and type 3 quartz may be different zones of the same veins or an overprint of two different mineralizing events)

Type 1 quartz contains "no" gold (usually <10 ppb) and only background values in base metals
e.g. Rock sample #DCR 98-3 10 ppb Au, <0.01% Pb, <0.01% Zn
Type 2 quartz contains good gold values with very lttle if any base metal values
e.g. Sample #17918 from DDH-21 78.79 g/t Au, <0.01% Pb, <0.01% Zn
Rock sample from the 155 vein 11.12 g/t Au, <0.01% Pb, <0.01% Zn
Type 3 quartz contains both high gold and base metal values
e.g. Sample #17798 from DDH-13 49.3 g/t Au, 3.75% Pb, 3.88% Zn
Sample #17830 from DDH-16 67.5 g/t Au, 1.00% Pb, 5.80% Zn
Sample #18270 from DDH-23 11.11 g/t Au, 9.10% Pb, 2.80% Zn
Note:all examples are from Noranda data except #DCR 98-3.

In order to ascertain the extent of the quartz vein material with "ore" grade gold values I would recommend an extensive sampling of quartz floats be carried out in the following areas of the property:

⇒ on the east facing slope (west side of Dominion Creek) between the Main Zone and the confluence of the East and West forks of Dominion Creek
⇒ in Dominion Creek itself as far upstream as is practical
⇒ in all the tributaries of Dominion Creek, especially those draining from the west. The east side only needs to be surveyed up to the Issac/Cunningham contact

It is very important, during this survey, to accurately locate and plot the sample locations and to provide a detailed field description of the samples. There must also be a duplicate of each sample kept for correlating with positive results and in case a more detailed study of the sample specimen is required.

The point I am making here is that this property is a gold rich quartz anomaly with an excellent probability of having more zones of high grade gold and that there are many quartz floats that may contain ore grade gold values but cannot be visually identified.

Type 3 Quartz

I had determined that it would be very useful to locate and plot as many type 3 quartz boulders as possible to help me ascertain if there were any concentrations of these readily identifiable quartz floats. A very careful and detailed boulder survey was carried out this season during the low water levels of this extremely dry summer. During our many trips up and down Dominion Creek doing our pan con and prospecting traverses we noted and flagged any type 3 boulders we found (first trip). During the boulder survey we prospected for additional type 3 quartz and plotted the previously flagged floats. We also attempted to locate as many type 2 quartz boulders as possible but there was just too many of these boulders in the area so it was decided that a detailed survey would be the only fair and practical way to map these floats. Only type 3 quartz floats, with obvious sulfides were plotted and sampled (not yet analyzed) but there are many type 1 and type 2 quartz boulders in the Dominion Creek drainage. The plotted type 3 quartz range in size from "chunks" of 25 cm. in "diameter" to boulders of about 1.5x1.0x1.0 metres with the majority of the plotted pieces about 0.8x0.5x0.5 metres

There were four clusters of the type 3 quartz located. I have described these boulder clusters (BC) starting at the junction of Discovery Creek and working southward (upstream and up-ice) as:

BC 1 - downslope from the Main Zone there is a number of boulders spread over about 150 metres which are probably from the Main Zone but some of the upstream ones may be from the 9600N anomaly.
BC 2 - directly downslope from the 9600N soil anomaly
BC 3 - a small group downstream and downslope from the 8800N soil anomaly; this cluster is about 900 metres upstream from the Main Zone.
BC 4 - this is a large group of boulders immediately downstream of the 8000N soil anomaly and the pan con anomaly in 8000N Creek; this cluster is about 1700 metres upstream of the Main Zone.

The farthest upstream/up-ice location of a type 3 boulder (1.5x0.8x0.5 metres) is about 2000 metres southerly from the Main Zone and is located in the Dominion Creek drainage, well above any known showing or anomaly. A type 3 boulder (1.5x1.25x1.0 metres) was located east of the LCP for AK I-IV and outside of the present Dominion Creek drainage; there was also another piece (1.0x0.75x0.5 metres) located just above 9600N 10500E on the Norex grid (inside the 9600N anomaly); two boulder trains were located at about 9450N 10400E (Norex grid) which is in the soil anomaly that stretches southerly from 9650N 10400E for 400 metres.

The results of the boulder survey have confirmed the presence of additional gold bearing zones outside the known showings even those these new areas have not been located to date.

PANNED CONCENTRATE SAMPLING

There were a total of 23 pan cons collected from the Dominion Creek drainage system. The area covered was trom the confluence of Dominion Creek and Discovery (Camp) Creek to about 1.5 kilometres up the East fork of Dominion Creek; about 1.5 kilometres up the West fork of Dominion Creek and on the east side of Dominion Creek well above the Isaac/Cunningham contact. The samples were taken as close to bedrock as possible and in the active part of the drainages. The samples were processed in the fild y sieving with a Barakso sieve/pan set which produced approximately a 1 kilo sample that was taken to camp and panned down to about 50 to 100 grams. This concentrate was submitted to Chemex Labs for 32 element ICP and gold geochem (results in appendix)

I have included a few of the samples for discussion;

Sample	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm
DCPC 98-17 (Discovery Creek)	170	0.8	57	384	154	74
DCPC 98-13 (8000N Creek)	265	0.2	75	40	118	104
DCPC 98-14 (8000N Creek)	1370	2.4	86	60	124	116
DCPC 98-23 (8400N Creek)	10	<0.2	74	44	112	94

The numbers have indicated to me that one should be cautious when interpreting results and look at all the "numbers " and not just the gold values. In the case of # 98-17 on Discovery Creek which is directly below the Main (South) Zone showing, the gold values are quite low for a pan con but the gold values are strongly supported by the base metal and the arsenic values. In this example there is a large zone of very high grade gold mineralization almost immediately above and upstream from the sample site. The sample 98-23 on 8400N Creek has low gold numbers but good support in base metal and arsenic values suggesting that this is also a target area. The samples 98-13 and 98-14 on 8000N Creek have good to excellent gold values with strong base metal and arsenic values indicating a possible source nearby. Arsenic constitutes a very minor part of the mineralization but is a good pathfinder on this property.

The results of the pan con survey have indicated that the gold mineralization is much more widely spread than just the area drilled by Noranda.

A pan con survey carried on earlier in the season while the water is still flowing in the intermittant streams would be very useful in better defining the gold mineralization.

SOIL SURVEY

The main purpose of the soil survey was to confirm the Noranda anomalies, to determine if there was a good way to "detail"survey the anomaly areas and to examine the soil profile on the steeper slopes.

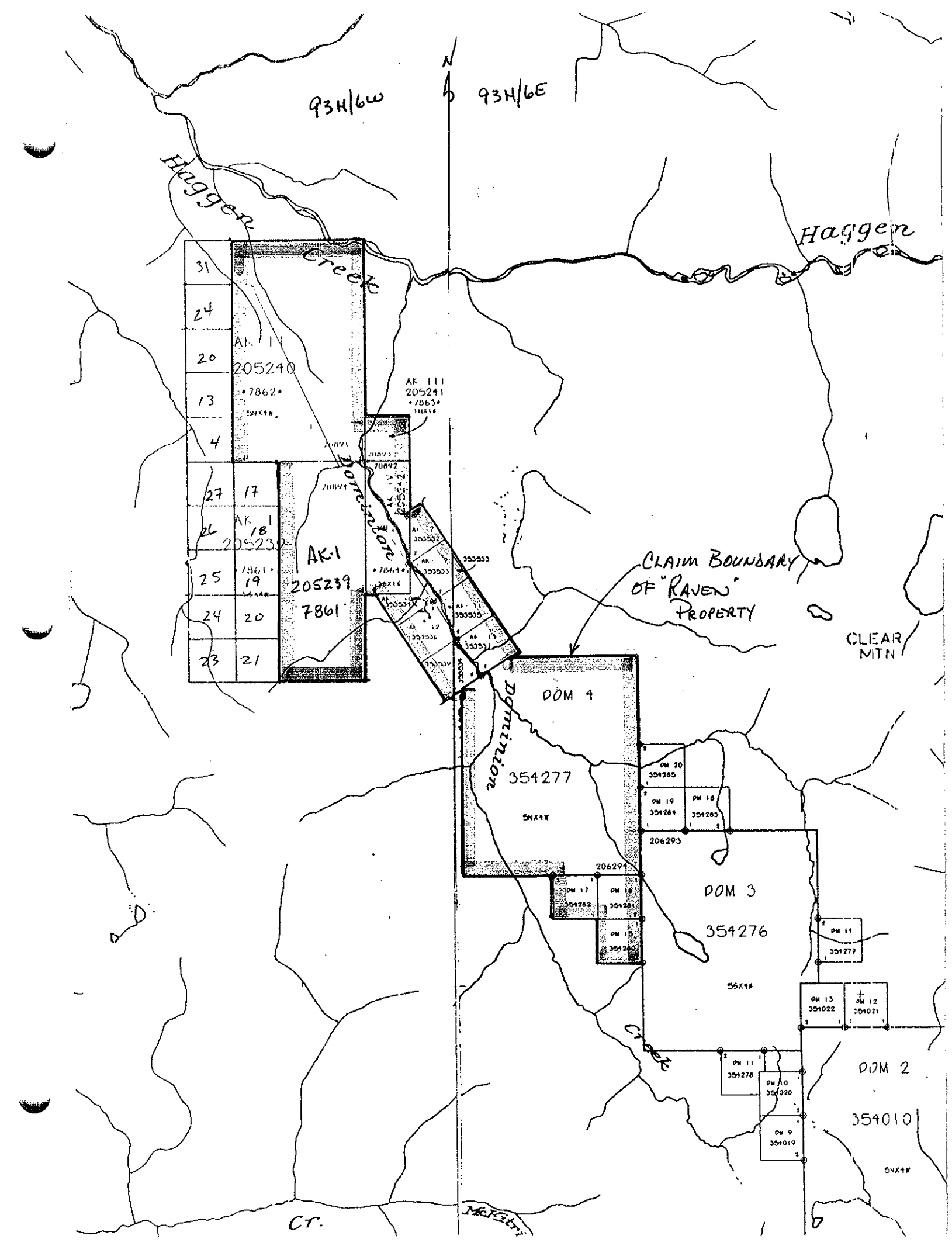
I concentrated on three Noranda lines 9600N, 9625N and 9650N which are between the ends of the drill roads and Dominion Creek as well as the anomaly at 8000N.We endeavored to resample the exact Noranda location so it was slow going at times to relocate the flagged sites. In most cases the old flagging was in the debris immediately under the station. Brennan became very effective at ferretting around in the ground cover to locate the old flagging. Our samples were taken with a shovel so that a soil profile could be examined at each site. By closely observing the soil development, soil creep and the enclosed "layering" of rock fragments, I came to the conclusion that:

- the steep slope created a soil environment that lead to "layers" of soil and rock fragment concentrations.
- depending on which "soil" layer was sampled and of what the rock fragment layer consisted, would determine in a large part the values obtained regardless of the bedrock mineralization.
- in some cases the "barren" rock fragment layers from upslope mask the bedrock response.

The results of the soil sampling program were positive in; confirming the Noranda anomalies in the 9600N and the 8000N areas are real, determining a sampling technique that would more decisively outline the anomalies and increasing my understanding of the particular mechanics of the soil dispersion on the steep slopes.

I would recommend that a detail soil grid, 25 by 25 metre, be established in the high priority areas. The samples should be taken with a shovel as near bedrock as possible to mitigate the effects of "barren" soil and rock fragment layers. I realize this would be labour intensive but would be well worth the effort. This sampling technique, shovelling of deep sample pits, should be used on all the steep slopes of the property.

CLAIM MAP


93H/6W
93H/6E
N
Haggen Creek
Haggen
AK I
205240
7862
AK I
18
205239
AK-1
205239
7861
AK III
205241
7863
Dorrington
CLAIM BOUNDARY OF "RAVEN" PROPERTY
CLEAR MTN
DOM 4
354277
DOM 3
354276
DOM 2
354010
206293
206294
Creek
Ct.

APPENDIX I
ANALYTICAL RESULTS

Chemex Labs Ltd.

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

To: RAVEN, ALAN

BOX 2937
PRINCE GEORGE, BC
V2N 4T7

Project :
Comments: ATTN: ALAN RAVEN

Page Number :1-A
Total Pages :1
Certificate Date: 18-AUG-98
Invoice No. :I9827699
P.O. Number :
Account :LVI

CERTIFICATE OF ANALYSIS A9827699

SAMPLE	PREP CODE		Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
DCPC 98.01	235	220	30	0.2	0.97	54	50	< 0.5	< 2	1.77	< 0.5	60	48	65	11.05	< 10	< 1	0.25	10	0.29	340
DCPC 98.02	235	220	25	0.2	0.80	50	40	< 0.5	< 2	2.49	< 0.5	55	37	59	10.10	< 10	< 1	0.16	10	0.34	345
DCPC 98.03	235	220	10	0.2	1.12	32	60	< 0.5	< 2	2.07	< 0.5	46	39	51	8.02	< 10	< 1	0.28	20	0.35	340
DCPC 98.04	235	220	< 5	< 0.2	1.51	32	40	< 0.5	2	5.36	< 0.5	33	37	30	6.89	< 10	< 1	0.20	10	0.67	385
DCPC 98.05	235	220	< 5	< 0.2	1.66	34	50	< 0.5	2	7.27	< 0.5	29	38	27	6.89	< 10	< 1	0.26	10	0.66	370
DCPC 98.06	235	220	< 5	< 0.2	1.61	30	40	< 0.5	< 2	8.95	< 0.5	24	36	22	6.38	< 10	< 1	0.19	10	0.65	320
DCPC 98.08	235	220	< 5	< 0.2	1.21	8	60	< 0.5	< 2	0.20	< 0.5	19	95	13	4.89	< 10	< 1	0.22	50	0.37	365
DCPC 98.09	235	220	< 5	< 0.2	1.51	32	50	< 0.5	< 2	3.61	< 0.5	36	30	41	6.51	< 10	< 1	0.21	10	0.60	385
DCPC 98.10	235	220	< 5	0.2	1.74	56	70	< 0.5	< 2	3.21	< 0.5	71	49	102	11.35	< 10	< 1	0.35	60	0.56	390
DCPC 98.11	235	220	< 5	< 0.2	0.85	60	50	0.5	< 2	0.32	< 0.5	32	28	34	6.38	< 10	< 1	0.22	10	0.22	390
DCPC 98.12	235	220	< 5	< 0.2	1.75	24	50	< 0.5	< 2	5.78	< 0.5	36	32	36	6.26	< 10	< 1	0.30	10	0.60	280
DCPC 98.13	235	220	265	0.2	0.63	104	40	0.5	2	0.31	< 0.5	61	24	75	11.55	< 10	< 1	0.14	20	0.18	340
DCPC 98.14	235	220	1370	2.4	0.94	116	60	0.5	< 2	0.45	< 0.5	68	28	86	12.45	< 10	< 1	0.27	20	0.19	340
DCPC 98.15	235	220	30	< 0.2	0.74	86	40	0.5	< 2	0.78	< 0.5	57	22	71	10.80	< 10	< 1	0.14	20	0.23	340
DCPC 98.16	235	220	10	0.2	0.83	134	50	0.5	< 2	1.16	< 0.5	82	33	102	>15.00	< 10	< 1	0.19	10	0.23	500
DCPC 98.17	235	220	170	0.8	0.91	74	50	< 0.5	2	1.00	1.0	51	47	57	10.05	< 10	< 1	0.21	10	0.23	335
DCPC 98.18	235	220	10	0.2	0.81	88	50	< 0.5	< 2	1.22	< 0.5	63	26	73	12.75	< 10	< 1	0.19	10	0.22	370
DCPC 98.19	235	220	35	0.8	0.51	118	30	< 0.5	< 2	0.38	< 0.5	93	22	103	>15.00	< 10	< 1	0.09	10	0.14	355
DCPC 98.20	235	220	< 5	0.2	0.68	102	40	< 0.5	< 2	1.83	< 0.5	65	25	76	14.60	< 10	< 1	0.16	10	0.17	310
DCPC 98.21	235	220	< 5	0.2	0.65	102	40	< 0.5	< 2	0.65	< 0.5	55	28	65	11.05	< 10	< 1	0.12	10	0.18	365
DCPC 98.22	235	220	5	< 0.2	1.35	46	60	0.5	< 2	2.42	< 0.5	42	32	53	9.26	< 10	< 1	0.28	10	0.32	385
DCPC 98.23	235	220	10	< 0.2	0.77	94	40	0.5	2	1.38	< 0.5	61	31	74	12.55	< 10	< 1	0.15	10	0.24	455

CERTIFICATION: Ivan Bridle

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
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PHONE: 604-984-0221 FAX: 604-984-0218

To: RAVEN, ALAN

BOX 2937
PRINCE GEORGE, BC
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Certificate Date: 18-AUG-98
Invoice No. :19827699
P.O. Number :
Account :LVI

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SAMPLE	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
DCPC 98.01	235 220	< 1	0.03	95	270	44	2	3	113	< 0.01	< 10	< 10	6	< 10	98
DCPC 98.02	235 220	< 1	0.02	84	300	42	< 2	3	143	< 0.01	< 10	< 10	5	< 10	102
DCPC 98.03	235 220	1	0.03	73	300	32	< 2	3	117	< 0.01	< 10	< 10	8	< 10	94
DCPC 98.04	235 220	2	0.03	50	210	34	< 2	2	409	< 0.01	< 10	< 10	10	< 10	78
DCPC 98.05	235 220	1	0.03	45	220	26	< 2	2	547	< 0.01	< 10	< 10	11	< 10	68
DCPC 98.06	235 220	< 1	0.02	38	210	18	< 2	1	643	< 0.01	< 10	< 10	10	< 10	62
DCPC 98.08	235 220	< 1	0.03	31	260	14	< 2	1	33	0.01	< 10	< 10	13	< 10	54
DCPC 98.09	235 220	< 1	0.04	57	290	36	< 2	3	256	< 0.01	< 10	< 10	9	< 10	84
DCPC 98.10	235 220	1	0.04	116	260	62	< 2	2	262	< 0.01	< 10	< 10	11	< 10	78
DCPC 98.11	235 220	< 1	0.05	48	330	30	< 2	4	44	< 0.01	< 10	< 10	6	< 10	102
DCPC 98.12	235 220	1	0.04	59	180	36	< 2	3	384	< 0.01	< 10	< 10	9	< 10	78
DCPC 98.13	235 220	< 1	0.02	108	360	40	6	3	35	< 0.01	< 10	< 10	4	10	118
DCPC 98.14	235 220	< 1	0.04	116	380	60	< 2	4	46	< 0.01	< 10	< 10	7	< 10	124
DCPC 98.15	235 220	< 1	0.02	103	360	34	2	3	58	< 0.01	< 10	< 10	5	< 10	112
DCPC 98.16	235 220	1	0.02	146	360	60	8	3	113	< 0.01	< 10	< 10	5	< 10	128
DCPC 98.17	235 220	< 1	0.03	77	290	384	< 2	3	73	< 0.01	< 10	< 10	6	10	154
DCPC 98.18	235 220	< 1	0.03	101	340	46	< 2	3	109	< 0.01	< 10	< 10	5	< 10	100
DCPC 98.19	235 220	1	0.01	127	340	54	< 2	2	49	< 0.01	< 10	< 10	2	10	104
DCPC 98.20	235 220	4	0.02	123	350	40	< 2	3	119	< 0.01	< 10	< 10	5	< 10	104
DCPC 98.21	235 220	< 1	0.01	96	400	32	< 2	3	61	< 0.01	< 10	< 10	5	< 10	94
DCPC 98.22	235 220	< 1	0.04	81	340	34	4	3	152	< 0.01	< 10	< 10	8	< 10	98
DCPC 98.23	235 220	< 1	0.02	110	320	44	2	3	117	< 0.01	< 10	< 10	5	< 10	112

CERTIFICATION:

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
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To: RAVEN, ALAN

BOX 2937
PRINCE GEORGE, BC
V2N 4T7

Project :
Comments: ATTN: ALAN RAVEN

Page Number :1-A
Total Pages :1
Certificate Date: 19-AUG-98
Invoice No. :I9827700
P.O. Number :
Account :LVI

CERTIFICATE OF ANALYSIS A9827700

SAMPLE	PREP CODE		As ppm	Sb ppm	Hg ppb	Ag ppm AAS	Al % (ICP)	Ba ppm (ICP)	Be ppm (ICP)	Bi ppm (ICP)	Ca % (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Cr ppm (ICP)	Cu ppm (ICP)	Fe % (ICP)
DCPC 98.01	299	285	54	3.8	< 10	< 0.2	5.36	330	2.0	2	2.00	< 0.5	71	100	67	11.75
DCPC 98.02	299	285	53	3.2	< 10	< 0.2	5.68	340	1.5	< 2	2.68	< 0.5	61	92	57	10.70
DCPC 98.03	299	285	37	2.4	< 10	0.2	5.91	360	2.0	6	2.14	< 0.5	49	92	51	8.15
DCPC 98.20	299	285	108	2.2	20	2.4	5.47	330	1.5	< 2	2.13	< 0.5	79	77	74	16.45
DCPC 98.21	299	285	104	3.0	< 10	< 0.2	6.50	420	2.0	< 2	0.75	< 0.5	64	88	65	11.65
DCPC 98.22	299	285	53	3.2	10	0.2	7.31	410	2.0	< 2	2.60	< 0.5	48	91	50	9.57
DCPC 98.23	299	285	94	7.4	< 10	< 0.2	5.97	360	2.0	< 2	1.56	< 0.5	70	80	66	13.20

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Project :
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CERTIFICATE OF ANALYSIS A9827700

SAMPLE	PREP CODE		K % (ICP)	Mg % (ICP)	Mn ppm (ICP)	Mo ppm (ICP)	Na % (ICP)	Ni ppm (ICP)	P ppm (ICP)	Pb ppm AAS	Sr ppm (ICP)	Ti % (ICP)	V ppm (ICP)	W ppm (ICP)	Zn ppm (ICP)
DCPC 98.01	299	285	1.85	0.52	385	< 1	0.50	119	400	76	177	0.34	54	< 10	98
DCPC 98.02	299	285	1.99	0.56	370	< 1	0.53	103	360	62	204	0.17	54	< 10	102
DCPC 98.03	299	285	2.04	0.56	365	< 1	0.57	89	380	48	176	0.33	59	20	90
DCPC 98.20	299	285	1.96	0.39	345	< 1	0.28	161	480	68	215	0.17	54	< 10	100
DCPC 98.21	299	285	2.30	0.39	390	< 1	0.50	118	510	56	144	0.17	71	< 10	96
DCPC 98.22	299	285	2.51	0.55	410	< 1	0.49	100	430	50	244	0.17	66	< 10	96
DCPC 98.23	299	285	2.09	0.46	490	2	0.47	138	410	66	175	0.17	57	< 10	104

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Project :
Comments: ATTN: ALAN RAVEN

Page Number :1-A
Total Pages :1
Certificate Date: 21-AUG-98
Invoice No. :19827702
P.O. Number :
Account :LVI

CERTIFICATE OF ANALYSIS A9827702

SAMPLE	PREP CODE		Au ppb FA+AA	Au FA g/t	Cu %	Pb %	Zn %	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	K %
DCR 07	208	226	580	-----	0.02	2.76	8.92	38	0.02	20	< 20	< 5	< 10	0.06	595	20	190	155	1.57	30	0.01
DCR 09	208	226	845	-----	0.55	4.45	4.54	57	0.20	30	20	< 5	< 10	0.54	475	15	120	5860	1.79	10	0.09
DCR 10	208	226	1310	-----	0.30	1.44	1.03	19	0.17	< 10	20	< 5	< 10	0.17	115	5	240	3070	1.21	10	0.08
DCR 11	208	226	45	-----	0.01	0.01	0.14	< 1	0.01	< 10	< 20	< 5	< 10	0.06	5	< 5	160	30	0.27	10	0.01
DCR 12	208	226	>10000	9.09	0.11	0.05	3.19	6	0.16	10	< 20	< 5	< 10	0.77	315	5	210	1105	2.33	20	0.07
DCR 13	208	226	2900	-----	0.02	0.24	1.29	4	0.06	< 10	< 20	< 5	< 10	0.06	85	5	160	215	1.37	10	0.03
DCR 14	208	226	45	-----	< 0.01	< 0.01	0.06	< 1	0.03	< 10	< 20	< 5	< 10	0.16	< 5	< 5	220	30	0.75	10	0.01
DCR 15	208	226	< 5	-----	< 0.01	< 0.01	0.03	< 1	0.03	< 10	< 20	< 5	< 10	0.05	< 5	< 5	130	15	0.40	10	0.02
DCR 20	208	226	790	-----	< 0.01	0.14	0.07	2	0.08	< 10	< 20	< 5	< 10	1.33	5	< 5	200	35	0.48	10	0.04

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CERTIFICATE OF ANALYSIS A9827702

SAMPLE	PREP CODE		Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
DCR 07	208	226	0.01	30	< 5	0.02	30	< 100	27900	20	< 5	5	< 0.01	20	< 20	< 20	< 20	>50000
DCR 09	208	226	0.04	40	< 5	0.03	20	700	46800	90	< 5	40	< 0.01	20	< 20	< 20	< 20	47200
DCR 10	208	226	< 0.01	40	5	0.03	10	600	14490	40	< 5	15	< 0.01	< 20	< 20	< 20	20	10290
DCR 11	208	226	< 0.01	10	< 5	0.03	< 5	< 100	175	< 10	< 5	< 5	< 0.01	20	< 20	< 20	< 20	1140
DCR 12	208	226	0.03	330	5	0.03	10	< 100	495	90	< 5	5	< 0.01	20	< 20	< 20	< 20	31500
DCR 13	208	226	0.01	180	< 5	0.03	10	< 100	2460	50	< 5	< 5	< 0.01	< 20	< 20	< 20	< 20	12680
DCR 14	208	226	< 0.01	80	< 5	0.03	5	< 100	70	< 10	< 5	5	< 0.01	< 20	< 20	< 20	< 20	505
DCR 15	208	226	< 0.01	60	< 5	0.03	< 5	< 100	45	< 10	< 5	< 5	< 0.01	20	< 20	< 20	< 20	225
DCR 20	208	226	0.03	50	5	0.03	5	< 100	1515	10	< 5	75	< 0.01	< 20	< 20	< 20	< 20	595

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Project :
Comments: ATTN: ALAN RAVEN

Page Number :1-A
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Certificate Date: 18-AUG-98
Invoice No. :I9827701
P.O. Number :
Account :LVI

CERTIFICATE OF ANALYSIS A9827701

SAMPLE	PREP CODE		Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
DCR 01	205	226	< 5	< 0.2	0.35	22	40	< 0.5	< 2	2.95	< 0.5	5	115	5	2.47	< 10	< 1	0.12	< 10	0.09	675
DCR 02	205	226	< 5	< 0.2	0.29	12	30	< 0.5	< 2	1.51	< 0.5	3	264	3	1.97	< 10	< 1	0.11	< 10	0.04	320
DCR 03	205	226	10	< 0.2	0.10	< 2	< 10	< 0.5	< 2	0.20	< 0.5	1	231	< 1	1.12	< 10	< 1	0.01	< 10	0.01	165
DCR 04	205	226	< 5	< 0.2	0.53	18	40	< 0.5	< 2	5.14	< 0.5	9	40	15	4.16	< 10	< 1	0.22	< 10	0.57	720
DCR 05	205	226	< 5	< 0.2	0.17	6	10	< 0.5	< 2	2.66	< 0.5	2	124	3	1.62	< 10	< 1	0.05	< 10	0.15	240
DCR 06	205	226	< 5	< 0.2	0.15	< 2	10	< 0.5	< 2	2.73	< 0.5	1	187	1	2.23	< 10	< 1	0.05	< 10	0.85	535
DCR 08	205	226	< 5	< 0.2	0.14	8	10	< 0.5	< 2	1.08	< 0.5	< 1	240	< 1	1.00	< 10	< 1	0.06	< 10	0.25	155
DCR 16	205	226	30	0.2	0.41	110	30	< 0.5	< 2	7.00	0.5	9	82	13	3.66	< 10	< 1	0.20	< 10	1.19	405
DCR 17	205	226	25	< 0.2	0.25	52	10	< 0.5	< 2	4.35	0.5	6	166	3	2.21	< 10	< 1	0.12	< 10	0.55	255
DCR 18	205	226	155	5.4	0.53	114	50	< 0.5	< 2	10.65	61.0	11	35	49	3.45	< 10	< 1	0.25	< 10	0.93	400
DCR 19	205	226	< 5	< 0.2	0.28	< 2	30	< 0.5	< 2	13.25	< 0.5	3	26	4	1.36	< 10	< 1	0.14	< 10	0.15	430
DCR 21	205	226	< 5	< 0.2	0.68	22	60	< 0.5	< 2	7.47	< 0.5	9	124	15	2.01	< 10	< 1	0.31	< 10	0.46	170
DCR 22	205	226	< 5	< 0.2	0.27	970	30	< 0.5	< 2	11.95	< 0.5	31	139	3	3.83	< 10	< 1	0.12	< 10	3.59	625
DCR 23	205	226	10	< 0.2	0.30	32	20	< 0.5	< 2	1.71	< 0.5	3	156	13	1.82	< 10	< 1	0.10	< 10	0.33	160

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Project :
Comments: ATTN: ALAN RAVEN

Certificate Date: 18-AUG-98
Invoice No. : I9827701
P.O. Number :
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CERTIFICATE OF ANALYSIS A9827701

SAMPLE	PREP CODE		Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
DCR 01	205	226	< 1	0.04	15	50	6	< 2	3	38	< 0.01	< 10	< 10	5	< 10	26
DCR 02	205	226	< 1	0.03	16	130	30	< 2	2	19	< 0.01	< 10	< 10	4	< 10	26
DCR 03	205	226	1	0.03	6	70	< 2	< 2	1	5	< 0.01	< 10	< 10	3	< 10	8
DCR 04	205	226	2	0.04	20	50	32	< 2	4	159	< 0.01	< 10	< 10	4	< 10	44
DCR 05	205	226	3	0.03	6	310	38	< 2	2	84	< 0.01	< 10	< 10	4	< 10	24
DCR 06	205	226	3	0.05	9	80	10	< 2	2	200	< 0.01	< 10	< 10	4	< 10	18
DCR 08	205	226	3	0.01	4	130	< 2	< 2	< 1	54	< 0.01	< 10	< 10	1	< 10	6
DCR 16	205	226	< 1	0.02	19	360	112	2	5	517	< 0.01	< 10	< 10	3	< 10	120
DCR 17	205	226	3	0.01	11	300	96	< 2	2	294	< 0.01	< 10	< 10	2	520	86
DCR 18	205	226	< 1	0.03	21	460	5080	4	4	850	< 0.01	< 10	10	3	< 10	5170
DCR 19	205	226	< 1	0.02	6	100	12	< 2	1	903	< 0.01	< 10	< 10	2	< 10	28
DCR 21	205	226	3	0.04	19	200	6	6	3	938	< 0.01	< 10	< 10	6	< 10	60
DCR 22	205	226	< 1	0.01	386	510	16	6	7	1430	< 0.01	< 10	< 10	19	< 10	94
DCR 23	205	226	3	0.05	10	70	22	< 2	1	102	< 0.01	< 10	< 10	3	< 10	14

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Invoice No. :I9827703
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Account :LVI

CERTIFICATE OF ANALYSIS A9827703

SAMPLE	PREP CODE		Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
9600N 10300E	201	202	10	< 0.2	0.77	36	30	0.5	< 2	0.21	< 0.5	22	10	44	5.47	< 10	< 1	0.05	30	0.15	560
9600N 10325E	201	202	40	< 0.2	0.80	26	30	< 0.5	< 2	0.35	< 0.5	12	10	23	4.89	< 10	< 1	0.06	20	0.11	285
9600N 10350E	201	202	125	0.6	1.71	62	60	2.0	< 2	0.61	0.5	34	12	64	7.45	< 10	< 1	0.02	50	0.03	1110
9600N 10375E	201	202	15	< 0.2	0.95	34	30	0.5	< 2	0.10	< 0.5	16	10	30	5.00	< 10	< 1	0.03	20	0.11	340
9600N 10400E	201	202	20	< 0.2	0.84	44	70	0.5	< 2	0.58	< 0.5	20	10	37	5.15	< 10	< 1	0.07	30	0.16	665
9600N 10425E	201	202	40	< 0.2	0.54	110	40	0.5	< 2	0.52	0.5	32	7	62	6.28	< 10	< 1	0.04	20	0.14	635
9600N 10450E	201	202	285	< 0.2	0.28	30	20	< 0.5	< 2	0.02	< 0.5	10	5	22	3.51	< 10	< 1	0.03	10	0.03	180
9600N 10475E	201	202	25	< 0.2	0.70	40	30	0.5	2	0.31	< 0.5	19	7	37	4.63	< 10	< 1	0.03	20	0.09	470
9600N 10500E	201	202	20	< 0.2	1.21	44	30	0.5	< 2	0.16	0.5	30	10	44	6.25	< 10	< 1	0.03	30	0.14	820
9600N 10525E	201	202	30	< 0.2	0.46	18	30	< 0.5	< 2	0.10	< 0.5	7	6	14	2.37	< 10	< 1	0.04	20	0.06	135
9600N 10525E(B)	201	202	45	< 0.2	1.44	36	40	1.0	< 2	0.16	< 0.5	21	11	35	5.45	< 10	< 1	0.04	30	0.14	400
9600N 10550E	201	202	10	< 0.2	1.02	26	30	0.5	< 2	0.36	< 0.5	18	13	33	4.38	< 10	< 1	0.05	40	0.27	425
9600N 10550E(B)	201	202	< 5	< 0.2	1.10	20	40	0.5	< 2	0.34	< 0.5	15	15	30	4.12	< 10	< 1	0.07	40	0.33	315
9625N 10340E	201	202	< 5	< 0.2	0.46	20	30	< 0.5	< 2	0.12	< 0.5	11	6	28	4.83	< 10	< 1	0.03	30	0.03	190
9625N 10360E	201	202	< 5	< 0.2	1.26	26	60	< 0.5	< 2	0.09	< 0.5	12	15	25	5.42	< 10	< 1	0.08	20	0.11	395
9625N 10380E	201	202	15	< 0.2	1.44	34	50	1.0	< 2	0.77	< 0.5	18	14	34	5.28	< 10	< 1	0.04	20	0.11	410
9625N 10400E	201	202	15	< 0.2	0.90	36	50	1.0	< 2	0.60	< 0.5	17	9	27	4.85	< 10	< 1	0.03	30	0.07	600
9625N 10440E	201	202	40	0.4	1.99	42	20	0.5	< 2	0.10	0.5	24	14	53	5.41	< 10	< 1	0.04	30	0.18	590
9625N 10460E	201	202	15	0.2	0.40	26	40	< 0.5	< 2	0.08	< 0.5	6	4	17	2.95	< 10	< 1	0.03	10	0.03	170
9625N 10480E	201	202	10	< 0.2	0.64	38	20	< 0.5	< 2	0.20	< 0.5	12	8	22	4.32	< 10	< 1	0.05	10	0.06	630
9625N 10500E	201	202	30	0.2	0.58	28	30	< 0.5	< 2	0.05	< 0.5	7	7	16	3.58	< 10	< 1	0.04	10	0.05	225
9625N 10525E	201	202	105	1.8	0.68	74	20	< 0.5	< 2	0.05	< 0.5	13	7	37	4.63	< 10	< 1	0.04	20	0.06	355
9625N 10550E	201	202	40	< 0.2	0.98	50	20	0.5	< 2	0.05	0.5	20	8	55	5.10	< 10	< 1	0.03	20	0.09	500
9650N 10320E	201	202	20	< 0.2	0.94	24	40	< 0.5	< 2	0.01	< 0.5	11	10	21	3.82	< 10	< 1	0.07	30	0.17	210
9650N 10340E	201	202	10	< 0.2	1.66	10	30	< 0.5	< 2	0.03	< 0.5	16	18	42	7.08	< 10	< 1	0.03	20	0.27	260
9650N 10360E	201	202	45	0.2	1.55	16	40	< 0.5	2	0.03	< 0.5	11	18	27	6.02	< 10	< 1	0.04	30	0.26	135
9650N 10380E	201	202	15	< 0.2	0.69	50	40	0.5	< 2	0.45	< 0.5	18	8	34	5.21	< 10	< 1	0.03	20	0.06	370
9650N 10380E(B)	201	202	25	< 0.2	1.11	48	90	1.5	< 2	1.80	< 0.5	21	12	50	6.37	< 10	< 1	0.05	30	0.08	1545
9650N 10440E	201	202	45	< 0.2	1.18	86	10	< 0.5	< 2	0.03	< 0.5	15	9	39	5.47	< 10	< 1	0.03	10	0.07	370
9650N 10460E	201	202	20	< 0.2	0.88	38	10	< 0.5	2	0.09	< 0.5	11	7	28	5.32	< 10	< 1	0.03	10	0.05	240
9650N 10480E	201	202	< 5	< 0.2	0.87	46	20	< 0.5	< 2	0.13	< 0.5	12	8	28	6.26	< 10	< 1	0.04	10	0.06	405
9650N 10500E	201	202	< 5	0.2	0.55	30	20	< 0.5	< 2	0.06	< 0.5	7	6	18	3.82	< 10	< 1	0.04	30	0.04	135
DCS 98.01	201	202	70	< 0.2	0.28	354	30	1.0	< 2	0.08	< 0.5	68	4	149	9.80	< 10	< 1	0.05	10	0.06	1315
DCS 98.02	201	202	75	< 0.2	0.23	216	10	0.5	2	0.12	< 0.5	55	3	120	8.19	< 10	< 1	0.03	10	0.06	655
DCS 98.03	201	202	220	< 0.2	0.18	84	10	0.5	2	0.09	0.5	29	2	63	6.13	< 10	< 1	0.03	< 10	0.04	575
DCS 98.04	201	202	820	0.4	0.20	120	10	0.5	< 2	0.20	2.5	40	3	69	7.46	< 10	< 1	0.03	10	0.05	700
DCS 98.05	201	202	90	0.2	0.23	84	20	0.5	< 2	0.35	1.5	37	3	75	7.87	< 10	< 1	0.04	< 10	0.05	555
DCS 98.06	201	202	65	0.2	0.33	48	20	0.5	< 2	0.37	< 0.5	34	3	64	6.74	< 10	< 1	0.04	10	0.07	480
DCS 98.07	201	202	225	< 0.2	0.23	80	30	0.5	< 2	0.63	1.0	33	3	72	8.11	< 10	< 1	0.05	10	0.04	655
DCS 98.08	201	202	250	0.2	0.40	104	30	1.0	2	0.36	0.5	42	4	75	7.58	< 10	< 1	0.06	10	0.07	600

CERTIFICATION:

Chemex Labs Ltd.

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

To: RAVEN, ALAN

BOX 2937
PRINCE GEORGE, BC
V2N 4T7

Project :
Comments: ATTN: ALAN RAVEN

Page Number :1-B
Total Pages :1
Certificate Date: 17-AUG-98
Invoice No. :I9827703
P.O. Number :
Account :LVI

CERTIFICATE OF ANALYSIS A9827703

SAMPLE	PREP CODE		Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
9600N 10300E	201	202	< 1	< 0.01	43	570	42	< 2	5	33	< 0.01	< 10	< 10	10	< 10	100
9600N 10325E	201	202	< 1	< 0.01	23	810	30	< 2	1	37	< 0.01	< 10	< 10	12	< 10	68
9600N 10350E	201	202	1	< 0.01	94	1270	64	< 2	16	90	< 0.01	< 10	< 10	12	< 10	156
9600N 10375E	201	202	< 1	< 0.01	30	710	36	< 2	4	19	< 0.01	< 10	< 10	10	< 10	74
9600N 10400E	201	202	< 1	< 0.01	41	1320	38	< 2	7	83	< 0.01	< 10	< 10	12	< 10	106
9600N 10425E	201	202	< 1	< 0.01	49	930	296	< 2	7	67	< 0.01	< 10	< 10	7	< 10	172
9600N 10450E	201	202	< 1	< 0.01	20	1190	24	< 2	< 1	9	< 0.01	< 10	< 10	11	< 10	58
9600N 10475E	201	202	< 1	< 0.01	36	1010	78	< 2	5	34	< 0.01	< 10	< 10	9	< 10	130
9600N 10500E	201	202	1	< 0.01	40	850	114	< 2	6	26	< 0.01	< 10	< 10	9	< 10	132
9600N 10525E	201	202	< 1	< 0.01	13	550	36	< 2	1	16	< 0.01	< 10	< 10	7	< 10	52
9600N 10525E(B)	201	202	1	< 0.01	38	780	146	< 2	4	25	< 0.01	< 10	< 10	8	< 10	164
9600N 10550E	201	202	1	< 0.01	35	950	50	< 2	5	43	< 0.01	< 10	< 10	12	< 10	108
9600N 10550E(B)	201	202	< 1	< 0.01	36	1070	28	< 2	5	47	0.01	< 10	< 10	14	< 10	92
9625N 10340E	201	202	< 1	< 0.01	22	1110	22	< 2	1	13	< 0.01	< 10	< 10	7	< 10	82
9625N 10360E	201	202	< 1	< 0.01	26	760	32	< 2	2	12	< 0.01	< 10	< 10	18	< 10	86
9625N 10380E	201	202	1	< 0.01	39	940	42	< 2	8	77	< 0.01	< 10	< 10	13	< 10	88
9625N 10400E	201	202	1	< 0.01	31	1010	36	< 2	8	65	< 0.01	< 10	< 10	10	< 10	86
9625N 10440E	201	202	< 1	< 0.01	41	800	270	< 2	6	16	< 0.01	< 10	< 10	11	< 10	198
9625N 10460E	201	202	< 1	< 0.01	11	800	32	< 2	< 1	11	< 0.01	< 10	< 10	6	< 10	42
9625N 10480E	201	202	< 1	< 0.01	20	1440	70	< 2	1	25	< 0.01	< 10	< 10	10	< 10	98
9625N 10500E	201	202	< 1	< 0.01	14	1460	94	< 2	1	13	< 0.01	< 10	< 10	10	< 10	84
9625N 10525E	201	202	1	< 0.01	28	1040	152	< 2	3	12	< 0.01	< 10	< 10	10	< 10	160
9625N 10550E	201	202	< 1	< 0.01	31	780	386	< 2	4	11	< 0.01	< 10	< 10	8	< 10	224
9650N 10320E	201	202	< 1	< 0.01	24	430	22	< 2	1	6	< 0.01	< 10	< 10	9	< 10	62
9650N 10340E	201	202	1	< 0.01	36	820	44	< 2	2	6	< 0.01	< 10	< 10	15	< 10	88
9650N 10360E	201	202	< 1	< 0.01	26	500	46	< 2	2	9	< 0.01	< 10	< 10	13	< 10	70
9650N 10380E	201	202	1	< 0.01	39	740	38	6	6	59	< 0.01	< 10	< 10	11	< 10	92
9650N 10380E(B)	201	202	2	< 0.01	51	2580	46	6	15	164	< 0.01	< 10	< 10	16	< 10	130
9650N 10440E	201	202	< 1	< 0.01	28	940	126	< 2	3	10	< 0.01	< 10	< 10	9	< 10	142
9650N 10460E	201	202	< 1	< 0.01	22	860	100	< 2	2	15	< 0.01	< 10	< 10	8	< 10	106
9650N 10480E	201	202	< 1	< 0.01	20	870	58	< 2	1	18	< 0.01	< 10	< 10	10	< 10	78
9650N 10500E	201	202	< 1	< 0.01	15	1170	30	< 2	1	12	< 0.01	< 10	< 10	8	< 10	48
DCS 98.01	201	202	2	< 0.01	130	510	60	6	9	24	< 0.01	< 10	< 10	7	< 10	150
DCS 98.02	201	202	1	< 0.01	98	410	96	6	8	22	< 0.01	< 10	< 10	6	< 10	204
DCS 98.03	201	202	< 1	< 0.01	52	490	106	6	7	16	< 0.01	< 10	< 10	4	< 10	168
DCS 98.04	201	202	1	< 0.01	66	470	220	< 2	8	24	< 0.01	< 10	< 10	4	< 10	300
DCS 98.05	201	202	1	< 0.01	60	380	100	2	8	21	< 0.01	< 10	< 10	4	< 10	268
DCS 98.06	201	202	< 1	< 0.01	52	540	66	< 2	9	33	< 0.01	< 10	< 10	5	< 10	148
DCS 98.07	201	202	1	< 0.01	68	460	68	2	9	45	< 0.01	< 10	< 10	5	< 10	294
DCS 98.08	201	202	1	< 0.01	64	500	70	2	8	40	< 0.01	< 10	< 10	6	< 10	170

CERTIFICATION:

HAGGEN CREEK

Dominion Creek

cut block

access road

North Zone

South (Main) Zone

DCPC 98-17

BC-1

BC-2

DCPC 98-1

DCPC 98-2

DCPC 98-3

9600N anomaly

Discovery (Camp) Creek

9600N

BC-3

8800N anomaly

BL 10,000E

DCPC 98-23

BC-4

8000N anomaly

8000N

CUNNINGHAM FORMATION

ISAAC FORMATION

DCPC 98-16

DCPC 98-13

DCPC 98-14

DCPC 98-15

8400N Creek

8000N Creek

DCPC 98-8

DCPC 98-6

Limestone Creek

DCPC 98-5

DCPC 98-4

DCPC 98-18

DCPC 98-9

DCPC 98-12

East Fork of Dominion Creek

DCPC 98-11

DCPC 98-10

DCPC 98-22

DCPC 98-21

DCPC 98-20

DCPC 98-19

West Fork of Dominion Creek

t1629

N

DOMINION CREEK PROJECT 1998
COMPILATION MAP

▲ DCPC 98-1 -pan concentrate sample site

BC-1 -boulder cluster

● -mineralized boulder

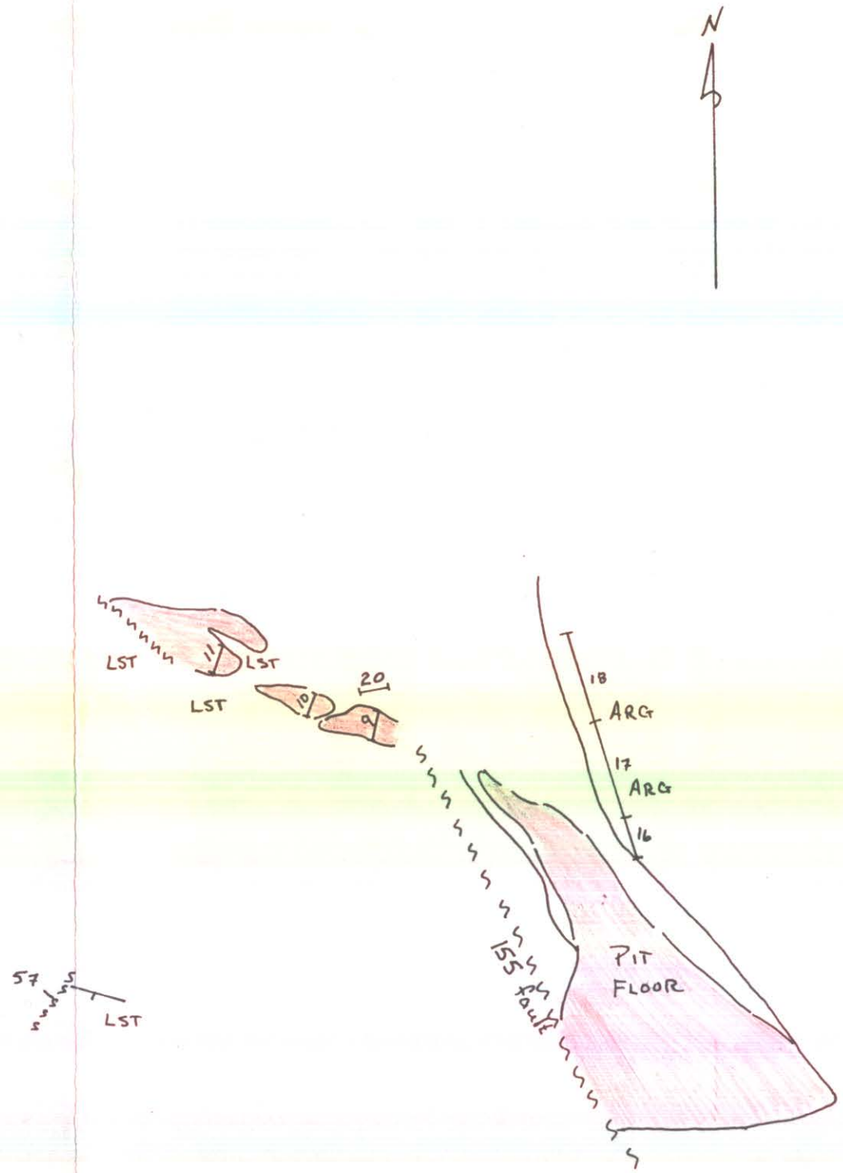
-gold soil anomaly

-access road

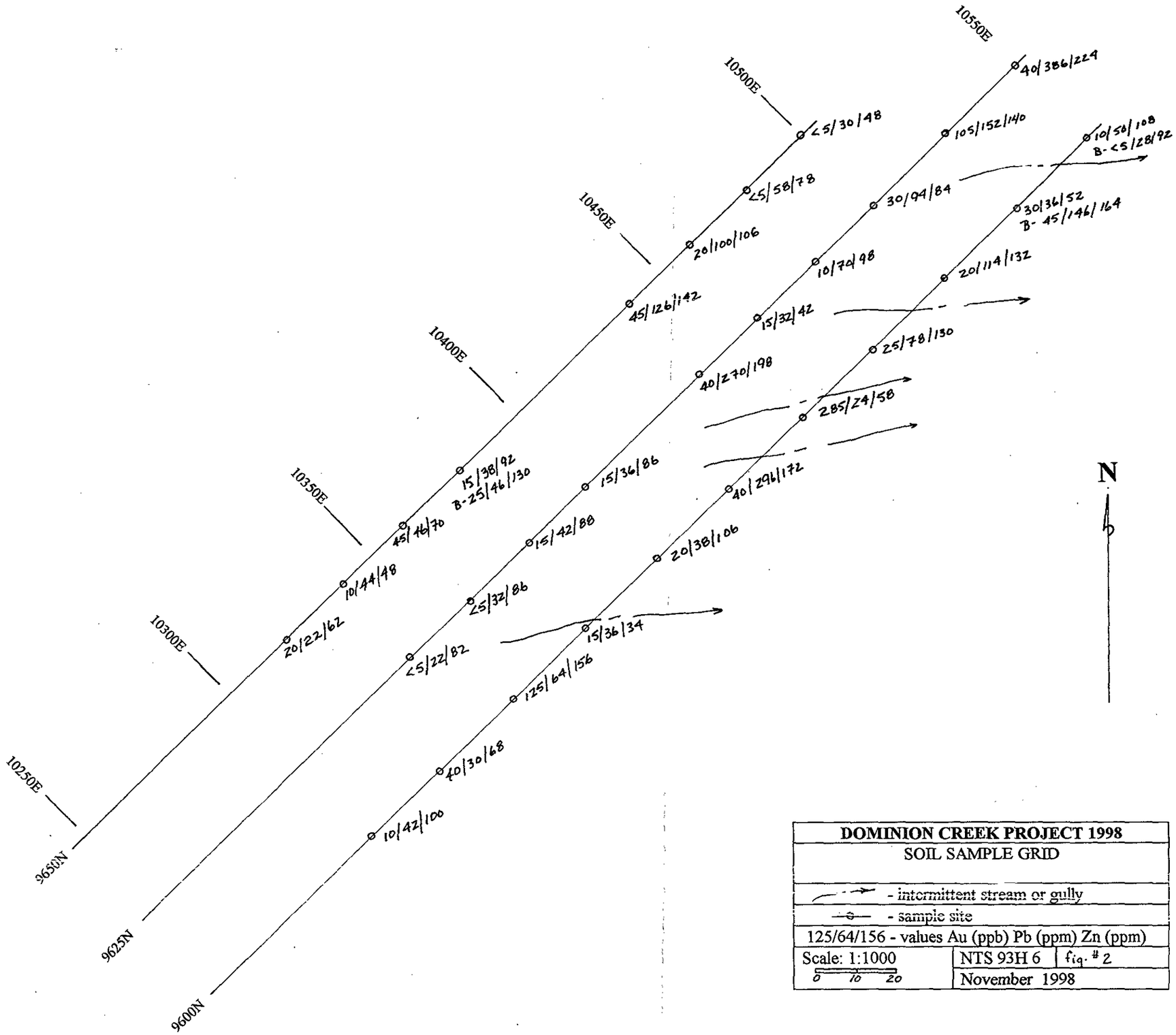
Scale 1:15,000 (0 – 300)

fig. #1

November 25, 1998 | NTS 93H/6 | A. Raven



DOMINION CREEK PROJECT 1998	
ROCK SAMPLES PIT AREA	
lst - limestone	
qtz - quartz	
12 - sample site	
- fault	
- outline of quartz outcrop	
40 - bedding attitude	
Scale: 1:100 0 1 2	NTS 93H 6 November 1998



DOMINION CREEK PROJECT 1998		
SOIL SAMPLE GRID		
- intermittent stream or gully		
- sample site		
125/64/156 - values Au (ppb) Pb (ppm) Zn (ppm)		
Scale: 1:1000 0 10 20	NTS 93H 6	fig. # 2
	November 1998	

RECD NOV 25/98

BRITISH COLUMBIA
PROSPECTORS ASSISTANCE PROGRAM 1998

AREA: HERRICK CREEK

NTS 93I/6E and 7W

TECHNICAL REPORT (Outline)

Name: Alan Raven Reference #98/99 P68

LOCATION/COMMODITIES

Project area: Herrick Creek

Location of project area NTS 93I/6&7 Latitude 54° 20′ N Longtitude 121° 00′ W

Description of location and access: The area is located in the Rocky Mountains about 120 kilometres east (073°) of Prince George. It is accessed by logging road to the Herrick Creek camp then by helicopter to the target area.

Main commodities searched for: Shale hosted lead/zinc

Known mineralization in the project area: None in the immediate area

WORK PERFORMED

As outlined in the attached report;prospecting and geochemical (23 samples)

SIGNIFICANT RESULTS: None

BRITISH COLUMBIA
PROSPECTORS ASSISTANCE PROGRAM 1998

AREA: HERRICK CREEK

NTS 93I/6E and 7W

ALAN RAVEN Reference number 98/99 P68

HERRICK PROJECT 1998

PURPOSE

The target in this project was to examine the possibilities of a shale hosted lead - zinc deposit in the continental margin rocks of the area while also being on the lookout for any other types of mineralization.

In a personal communication with an ex-El Paso prospector who had done recon in the area during the 1970s, he told me that they had located some copper, lead and zinc showings in the area.

My work failed to to confirm or locate these "showings" but the possibility still exits for a "Sedex" model in the Devonian rocks of the area.

GEOLOGY

Camp #1

The geology of the area is mapped as of Proterozoic/Hadrynian continental margin sediments.

The rocks consist of the Middle Miette Group of pebble congomerate, argillite, diamictite and minor limestone.(O.F. 630 Monkman Pass Geology compiled G.C.Taylor 1979 and D.F.Stott 1975)

We were camped on a medium grained arkosic sandstone that was overlying the large area of interbedded argillites/limestones. The area we prospected from camp 1 is an extensive area of interbedded shale/argillite/limestone/sandstone. No mineralization or alteration of significance was located.

Camp # 2

The geology traversed was the younger Paleozoic /Lower Ordovician Survey Peak Formation which consisted of limestones, minor interbedded calcareous soltstone to very fine grained sandstone; the Monkman Quartzite and the Middle Ordovician, Skoki Formation which consists of limestone and dolomite. (GSC Map 1872A 1995 Wapiti Pass)

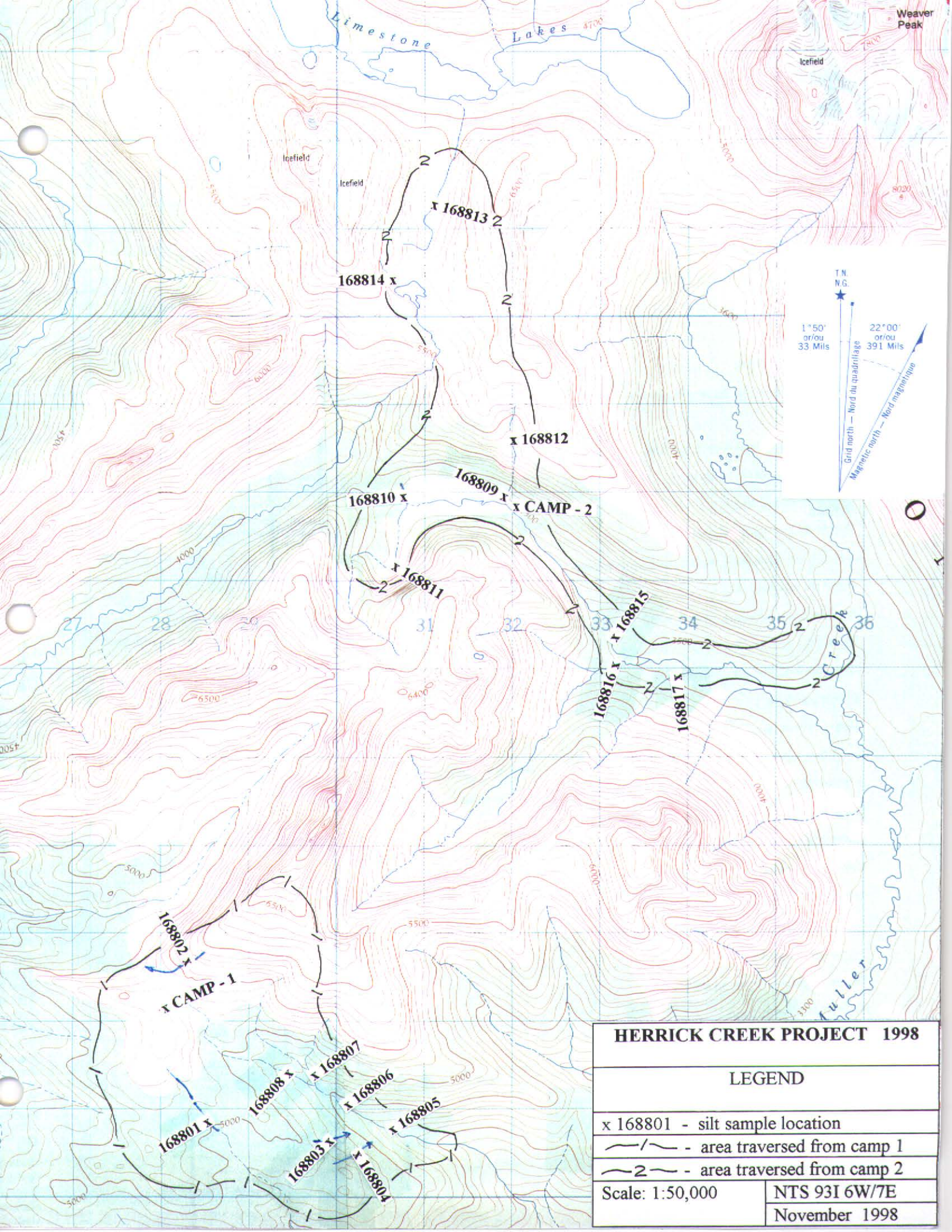
From Camp #2 we traversed across the Survey Peak Formation, portions of the Monkman Quartize and portions of the Skoki Formation. The Monkman Quartzite is more extensive than indicated on the geology map but makes no practical difference to the mapping. No sign of significant mineralization or alteration was encountered

RESULTS

The results of the recon work were disappointing but I know that success is not had every time we start to explore a new area.For me it is very interesting and exciting to cover new territory; this is one of the main reasons I have chosen this career path. As you can see from the analytical results there is very little encouragement for the immediate area but this does not rule out the possibilities for the area as a whole.

The 1998 season reconnaissance of the Herrick Creek target area was scaled back from my original plan because of financial constraints. I hope to have the financial resources available in the future to continue the recon program. The construction of new logging access in the area will greatly reduce exploration costs and improve the economics of any new prospects.

I focused most of my time and monies on my Dominion Creek property since the option agreement I was negotiating at the time of my grant proposal had collasped. It became necessary for me to perform assessment work on my D.C. property and to improve it's salability.



HERRICK CREEK PROJECT 1998

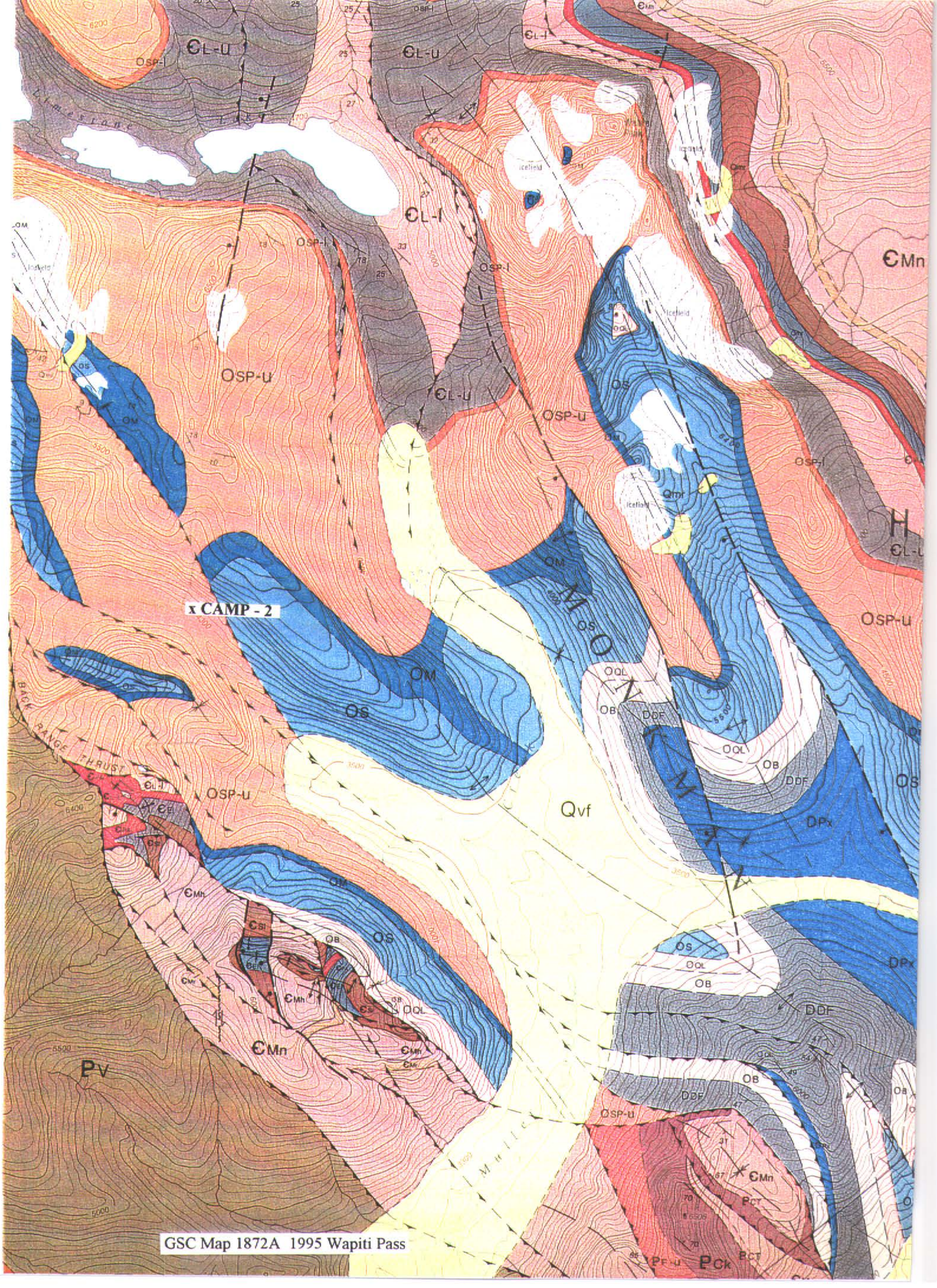
LEGEND

x 168801 - silt sample location

—/— - area traversed from camp 1

—2— - area traversed from camp 2

Scale: 1:50,000	NTS 93I 6W/7E
	November 1998



GSC Map 1872A 1995 Wapiti Pass

Photo # 1 Looking southward from the Camp - 1 area. The trees are growing on the drained ridges of sandstone outcrop while the meadows are being formed on the shale interbeds

Photo # 2 Looking eastward from the meadow on the left of the above photo, showing the dip slope of the interbedded limestone and shales

Photo # 3 Looking eastward at the first false summit above and east of Camp 2, showing the southerly dipping limestone of the Survey Peak Formation.

Photo #4 Looking eastward from the second false summit above Camp 2, showing the contact area of the Monkman Quartzite overlying the Survey Peak limestone.

Photo #5 Looking northwesterly from near the height of land (lake is a height of land) on an outcrop of the Monkman quartzite toward the thrust contact of the Survey Peak limestone over the Monkman Quartzite.

Photo #6 Looking westward showing the thrust contact over the Monkman Quartzite (very light brown) by the Survey Peak rocks and also the coforming contact of the Survey Peak rocks under the Monkman Quartzite.

APPENDIX I
ANALYTICAL RESULTS

Intertek Testing Services
Bondar Clegg

CLIENT: HIGH RANGE EXPLORATION LTD. PROJECT: NONE GIVEN
REPORT: V98-02039.0 (COMPLETE) DATE RECEIVED: 19-NOV-98 DATE PRINTED: 24-NOV-98 PAGE 1A(1/ 3)

SAMPLE NUMBER	ELEMENT UNITS	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT
T1 168801		<0.2	35	48	128	<1	42	28	0.3	<5	15	<5	5.65
T1 168802		<0.2	51	25	84	<1	17	10	0.4	<5	<5	<5	2.92
T1 168803		<0.2	5	14	50	<1	12	14	0.3	<5	<5	<5	2.64
T1 168804		<0.2	4	15	49	<1	13	9	0.3	<5	<5	<5	2.49
T1 168805		<0.2	23	23	78	<1	18	11	<0.2	<5	<5	<5	3.59
T1 168806		<0.2	27	28	83	<1	22	14	0.3	<5	9	<5	3.98
T1 168807		<0.2	43	31	85	1	23	15	0.3	<5	11	<5	4.26
T1 168808		<0.2	34	36	105	2	30	18	0.4	<5	18	<5	4.85
T1 168809		<0.2	5	11	27	<1	8	4	<0.2	<5	<5	<5	1.11
T1 168810		<0.2	21	20	144	2	26	9	1.1	<5	9	<5	2.65
T1 168811		<0.2	31	19	57	<1	19	11	<0.2	<5	7	<5	3.26
T1 168812		<0.2	11	17	72	<1	16	7	0.3	<5	5	<5	2.32
T1 168813		<0.2	4	7	20	<1	6	3	<0.2	<5	<5	<5	1.01
T1 168814		<0.2	11	13	41	<1	12	6	0.2	<5	6	<5	1.82
T1 168815		<0.2	14	13	50	<1	15	8	0.2	<5	5	<5	2.38
T1 168816		<0.2	33	20	61	<1	20	11	0.2	<5	<5	<5	3.40
T1 168817		<0.2	8	9	28	<1	13	6	<0.2	<5	<5	<5	1.89

Intertek Testing Services
Bondar Clegg

CLIENT: HIGH RANGE EXPLORATION LTD. PROJECT: NONE GIVEN
REPORT: V98-02039.0 (COMPLETE) DATE RECEIVED: 19-NOV-98 DATE PRINTED: 24-NOV-98 PAGE 13(2/ 3)

SAMPLE NUMBER	ELEMENT UNITS	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT
T1 168801		1386	<10	42	18	12	<20	<20	8	1.83	0.65	0.32	<0.01
T1 168802		683	<10	54	10	11	<20	<20	16	1.11	0.40	0.24	<0.01
T1 168803		1411	<10	32	8	9	<20	<20	15	0.83	0.25	0.20	<0.01
T1 168804		1170	<10	32	7	8	<20	<20	16	0.84	0.25	0.17	<0.01
T1 168805		898	<10	59	12	12	<20	<20	19	1.24	0.45	0.41	<0.01
T1 168806		903	<10	53	11	11	<20	<20	18	1.09	0.51	0.40	<0.01
T1 168807		640	<10	57	12	11	<20	<20	14	1.13	0.59	0.47	<0.01
T1 168808		1210	<10	46	13	11	<20	<20	14	1.03	0.58	0.68	<0.01
T1 168809		438	<10	25	6	7	<20	<20	11	0.55	0.75	0.96	<0.01
T1 168810		941	<10	170	11	26	<20	<20	14	1.07	0.42	0.82	<0.01
T1 168811		573	<10	69	12	18	<20	<20	25	1.24	0.71	0.37	<0.01
T1 168812		1530	<10	60	15	16	<20	<20	26	1.23	0.62	0.53	<0.01
T1 168813		471	<10	17	5	6	<20	<20	9	0.41	4.18	6.70	<0.01
T1 168814		659	<10	51	11	11	<20	<20	17	0.90	4.38	6.67	<0.01
T1 168815		1193	<10	68	11	15	<20	<20	18	0.95	1.18	1.77	<0.01
T1 168816		410	<10	48	12	11	<20	<20	24	1.21	0.89	0.80	<0.01
T1 168817		435	<10	69	12	13	<20	<20	17	0.92	1.68	2.56	<0.01

Intertek Testing Services
Bondar Clegg

CLIENT: HIGH RANGE EXPLORATION LTD. PROJECT: NONE GIVEN
REPORT: V98-02039.0 (COMPLETE) DATE RECEIVED: 19-NOV-98 DATE PRINTED: 24-NOV-98 PAGE 1C(3/ 3)

SAMPLE NUMBER	ELEMENT UNITS	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
T1 168801		0.03	12	7	4	84	<1	<5	<10	<0.01	4
T1 168802		0.07	13	5	2	28	<1	<5	<10	<0.01	1
T1 168803		0.02	13	6	2	28	<1	<5	<10	<0.01	<1
T1 168804		0.02	11	6	<2	30	<1	<5	<10	<0.01	<1
T1 168805		0.09	30	5	3	39	<1	<5	<10	<0.01	2
T1 168806		0.09	22	6	2	31	<1	<5	<10	<0.01	2
T1 168807		0.10	21	6	3	27	<1	<5	<10	<0.01	2
T1 168808		0.04	26	7	2	37	<1	<5	<10	<0.01	2
T1 168809		0.11	7	4	<2	8	<1	<5	<10	<0.01	<1
T1 168810		0.09	15	8	2	16	2	<5	<10	<0.01	1
T1 168811		0.09	13	6	3	21	<1	<5	<10	<0.01	2
T1 168812		0.12	12	12	3	17	<1	<5	<10	<0.01	1
T1 168813		0.09	19	4	<2	6	<1	<5	<10	<0.01	<1
T1 168814		0.26	23	6	<2	20	<1	<5	<10	<0.01	1
T1 168815		0.14	17	8	<2	15	<1	<5	<10	<0.01	1
T1 168816		0.12	15	7	3	25	<1	<5	<10	<0.01	2
T1 168817		0.20	18	8	<2	13	<1	<5	<10	<0.01	2