MINERAL LITLES BRANCH
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OCT 0 5 2000
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VANCOUVER, B.C.

## ASSESSMENT REPORT

on

**1999 ROCK SAMPLING PROGRAM** 

Lav Property

## NTS 82L/6 E

Lat: 50° 16' 00" N Long: 119° 08' 00" W

## RECEIVED

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**GOVERNMENT AGENT** GRAND FORKS

by:

Linda Caron, P. Eng. Box 2493 Grand Forks, B.C. V0H 1H0



**GEOLOGICAL SURVEY BRANCH** 

ASSESOCIOE 2000 EPORT

TABLI	e of	CON	<b>FENTS</b>

1.0	SUMMARY	Page 1
2.0	INTRODUCTION 2.1 Location, Access and Terrain 2.2 Property and Ownership 2.3 History 2.4 Summary of Work Done, July - November, 1999	2 2 3 3
3.0	GEOLOGY AND STRUCTURE	4
4.0	ROCK SAMPLING	7
5.0	RECOMMENDATIONS	8
6.0	REFERENCES	8

5

## LIST OF FIGURES

	Page
Figure 1 - Location Map	aft p.2
Figure 2 - Claim Map	aft p.2
Figure 3 - Geology, Rock Sample Locations and Results	aft p.4

## LIST OF APPENDICES

APPENDIX 1 - Rock Sample Descriptions and Analytical Results APPENDIX 2 - Cost Statement APPENDIX 3 - Statement of Qualifications

#### 1.0 SUMMARY

The Lav property is located about 10 kilometres east of Vernon, B.C. There is excellent access to the claims via a network of roads up the Coldstream Creek valley. The property consists of eight 2-post mineral claims owned by John Kemp and Linda Caron. This report summarizes the results of preliminary prospecting and rock sampling completed on the claims during 1999.

A large zone of intensely altered quartz-pyrite-sericite schist occurs on the property. The quartz-pyrite-sericite schist is some 200-400 metres wide and can be traced for over 1.5 km in strike. A major Au (+ As, Sb, Ag, W, Cd, Zn, Pb, Fe, La, Mn, P) soil anomaly, which exceeds 2 km in length, correlates strongly with this unit. Work on the property in the late 1980's showed elevated gold values within the sericite schist, including 125 m averaging 307 ppb gold in one drill hole (or 34 metres @ 500 ppb Au). This interval included 2 metres which returned 2520 ppb Au, 3.8 ppb Ag and 1548 ppm Cu.

Ten rock samples were collected during 1999 and submitted for multi-element analysis. One sample was also submitted for petrographic examination. Anomalous gold (440 ppb) was returned from one sample, collected from subcropping quartz-pyrite-sericite schist in the area of the main 2+ km long gold+multi-element soil anomaly. The rock sample was also anomalous in Ag (7.4 ppm), Pb (108 ppm), Hg (270 ppb), Mo (15 ppm), Sb (50 ppm), and Bi (6 ppm). The presence of anomalous Hg in the system was not previously known and may be useful in studying zonation within the mineralizing system and thus guiding future exploration.

The Lav property exhibits many of the characteristics of a transitional porphyry-epithermal Au-Ag (+Cu, As, Sb) system as described by Panteleyev (1996). Deposits of this type have a considerable range in size and grade. Examples include Equity Silver, in central British Columbia, with a mineable reserve of 30 million tonnes grading 0.25% Cu, 86 g/t Ag and 1 g/t Ag, and Kori Kollo in Bolivia, with 10 million tonnes of oxide ore grading 1.62 g/t Au and 23.6 g/t Ag, and 64 million tonnes of sulfide ore grading 2.26 g/t Au and 13.8 g/t Ag. The similarity between the host rocks, alteration, mineralogy and geochemical signatures on the Lav property, with those described by Panteleyev (1996) for this style of deposit suggest that this model could be applied to guide exploration on the property. It also suggests the potential for a sizeable target of higher grade, within the large area of alteration on the Lav property.

Previous work on the Lav property was all of a very widespread nature. Soil samples were collected at 50 metre intervals on 150 metre spaced lines. No detailed geological mapping was done. No geophysics has been completed on property, nor has any trenching been done. Detailed follow-up work is recommended to test for high grade sulfide zones within the large area of quartz-pyrite-sericite alteration. This work should include close spaced gridding, ground geophysics (mag, VLF-EM and SP), close spaced soil sampling, and detailed geological mapping and rock chip sampling.

1

### 2.0 INTRODUCTION

#### 2.1 Location, Access and Terrain

Work described in this report was done on the Lav property, located about 10 kilometres east of Vernon, B.C. (see Figure 1). Access to the property is east from Vernon on Highway 6 to the Noble Canyon road at Lavington. The property is reached by following the Noble Canyon road north up the Coldstream Creek valley, taking the Becker Lake branch, for about 8 km. From here there is good access on various logging and powerline roads to most parts of the claim block.

The claims are situated near the height of land between Vernon and the Coldstream Creek Valley, just east of Vernon Hill. The topography of the property is generally quite subdued, with elevations ranging from about 1100 to 1250 metres. The western portion of the property has little relief, while to the east the claims occupy a moderate east facing slope. For the most part, the property is heavily forested. Some logging has been done, and logging is ongoing on the claims.

The climate is generally quite dry, with hot summers and little rainfall. Snowfall is minimal, generally less than 1 metre. Water would be available for drilling from the small pond in the northwest portion of the property.

#### 2.2 Property and Ownership

The Lav property consists of eight 2-post mineral claims, as shown in Figure 2 and summarized below. The claims are owned 50% by John Kemp and 50% by Linda Caron.

Tenure Number	<u>Units</u>	Expiry Date
370419	1	July 20, 2001
370420	1	July 20, 2001
370421	1	July 20, 2001
370422	1	July 20, 2001
370423	1	July 20, 2001
370424	1	July 20, 2001
380366	1	Aug 25, 2001
380367	1	Aug 25, 2001
	Tenure Number 370419 370420 370421 370422 370423 370423 370424 380366 380367	Tenure Number Units   370419 1   370420 1   370421 1   370422 1   370423 1   370424 1   370425 1   370426 1   370427 1   370426 1   370427 1   370423 1   380366 1   380367 1

Expiry dates listed are after acceptance of this report.





#### 2.3 History

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The Lav property was first staked in 1988 in follow-up to a regional heavy mineral sampling program and the claims were subsequently optioned to BP Resources. In 1989 a program of gridding, soil sampling and recce geological mapping was completed, with samples collected at 50 metre intervals on lines spaced 150 metres apart. A major Au (+ As, Sb, Ag, W, Cd, Zn, Pb, Fe, La, Mn, P) soil anomaly was identified. The grid was then extended to the west, and additional sampling done, which extended the anomaly to 2.5 km in strike length, with a width of 200 – 400 metres (see Figure 3). Maximum gold values within the anomalous area were 750 ppb Au, with a threshold value of 9-15 ppb. A number of other smaller anomalous areas were also defined.

Diamond drilling was then completed during 1989-90 to test the anomalous area for the possibility of a large, low grade deposit. Eight holes were completed (4 in one fence), as shown on Figure 3, for a total of 1008 metres. All drill core is in excellent condition and is stored on the property. Wong (1990) summarizes the results as follows:

"Drilling has indicated that the soil anomaly is underlain by pyritic sericite schist containing variable amounts of quartz, chlorite, tourmaline and mariposite. The schist is pervasively enriched in gold with drill results ranging from 50 m averaging 113 ppb gold in hole 89-4, to 125 m averaging 307 ppb gold in hole 90-7 (or 34 metres @ 500 ppb Au. This interval includes 2 metres which returned 2520 ppb Au, 3.8 ppb Ag and 1548 ppm Cu). The schist is gradational into graphitic argiillite with subordinate mafic tuffaceous beds to the southwest, and gradational into quartz-feldspar porphyry to the northeast. Protolith for the schist, which has a minimum width of 250 m, appears to be a felsic rock, perhaps originally a volcanic in origin, which localized deformation and alteration possibly related to the emplacement of Jurassic plutons."

Although follow-up work was recommended, BP relinquished the option on the claims following the 1990 drill program, and the claims were subsequently allowed to lapse. The current claims were acquired by staking during the summer of 1999.

## 2.4 Summary of Work Done, July - November, 1999

Several days were spent prospecting and sampling on the Lav property during the period July 21, 1999 to Nov 15, 1999. Prospecting and rock sampling was done by Linda Caron and John Kemp, as well as by several industry geologists examining the property. For the purposes of this report, only one day of work by L. Caron has been included in the Cost Statement and filed with the Notice of Work. The balance of the expenditure filed is analytical costs related to the samples collected during this time.

Ten rock samples were collected and sent to Chemex Labs in Vancouver for preparation and analysis. Analysis was for 31 element ICP plus gold by 30 gram Fire Geochem, AA finish. One sample was sent to the Cominco Research Lab for petrographic examination

### 3.0 GEOLOGY AND STRUCTURE

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The general geology of the area east of Vernon, in the vicinity of the Lav property, is described by Jones (1959). Metamorphic rocks of the Monashee Group underlie much of this region. The metamorphic rocks are intruded by Jurassic and/or Cretaceous granodiorite of the Nelson Intrusive suite, and are overlain in part by sediments and volcanics of the Carboniferous and Permian Cache Creek Group and the Upper Triassic Nicola Group. Locally, Miocene basalt of the Kamloops Group covers the older rocks.

Jones (1959) shows the Lav claims to be situated in a fault bounded block of Cache Creek Group argillite and volcanics, situated within a large expanse of Monashee Group gneiss. Major north to northwest trending faults mark the boundary between the Cache Creek Group and Monashee Group rocks. The western boundary fault is referred to by Jones (1959) as the Lavington unconformity, as is described as follows:

"The Lavington unconformity appears on the north side of Coldstream Valley, which leads east from Vernon to Lumby, and is about 2 miles west of Lavington. More exactly, the unconformity lies on the west slope of a small valley that descends steeply into Coldstream Valley, and which is known locally as 'Keefer Gulch'. The rocks below the unconformable contact are micaceous phyllites, calcareous quartzites, mica schists, and pegmatite belonging to the Shuswap terrane. They strike northwest and dip at about 50 degrees northeast. A consolidated breccia of the underlying phyllite marks the contact and is partly leached and altered to a white, rusty weathering, vesicular rock composed of guartz and sericite. Lying immediately above the weathered breccia is a massive rather fresh-looking lava of green, andesitic augite porphyry comprising a more of less flat-lying flow about 10 feet thick. This is overlain by calcareous tuffs and a layer of white, massive limestone about 20 feet thick which, in turn, is overlain by more flows of augite porphyry that contain small pods of limestone. No fossils have been found in the limestone but the lithology of the upper succession is identical with that of typical sedimentary and volcanic rocks of the Cache Creek group. Tuffs, lavas, and fossiliferous sedimentary rocks of the Cache Creek group outcrop for several miles to the east but are separated from the strata that overlie the unconformity by a fault that trends north along 'Keefer Gulch'. The rocks above the Lavington unconformity cannot positively be established as Cache Creek but their lithological similarity and proximity to known Cache Creek strata make correlation almost certain."

The geology of the Lav property is described in some detail by Wong and Hoffman (1989) and shown on Figure 3. The work program detailed in the current report was restricted to recce style prospecting and rock sampling and did not include any geological mapping. For the purposes of this report, the geology as outlined by Wong and Hoffman (1989) is accepted. Subsequent to the 1999 work program, detailed geological mapping has been done by the author. This work will be described in a separate report covering exploration completed during the 2000 field season. Mapping during 2000 has added to the geological picture described by Wong and Hoffman (1989) and in several cases has significantly altered the geological understanding of the property.



West of the claims, metamorphic rocks of the Monashee Group outcrop. A north-northwest trending fault occurs just east of Becker Lake (described by Jones (1959) as the Lavington unconformity) and separates the Monashee rocks from the younger Cache Creek Group rocks to the east. East of the fault, a thick sequence of well bedded argillite of the Cache Creek Group occurs in the southern portion of the claim block. Quartz sweat type veining is common within the argillite.

The argillite is overlain, or perhaps intruded along the upper contact, by a bleached, well foliated, intensely altered zone of quartz-pyrite-sericite schist some 200-400 metres wide. The main gold + multi-element soil anomaly correlates strongly with this unit and drilling by BP showed elevated gold values within the sericite schist. The schist is described by Wong and Hoffman (1989) as follows:

"A zone of pyritic sericite schist up to 200 m wide and trending roughly 120° is exposed in roadcuts in the southwest corner of the claim area. The baseline of the grid (100N) runs approximately along the centre of this zone.

Protolith for the sericite schist is thought to be a feldspar-quartz porphyry intrusion of granodiorite composition. This porphyry is exposed just north of the small lake at the western end of the baseline.

The sericite schist - feldspar porphyry unit appears to mark the approximate contact between the Cache Creek and Monashee Groups. Deformation and alteration of the feldspar-quartz porphyry is thought to have occurred during fault juxtaposition of the two stratigraphic packages. Age of the porphyry intrusion is assumed to be pre-Tertiary and most probably Jurassic-Lower Cretaceous."

During the current program, a sample of this unit was submitted for petrographic examination. The complete thin section description of the sample is included in Appendix 1. The rock was described as "a sheared, weathered meta-volcanic or related rock". Detailed examination of the unit in outcrop and of contact relations supports a quartz-feldspar intrusive protolith for the schist, as suggested by Wong and Hoffman (1989).

The rock is moderate to strongly foliated, bleached and strong to intensely altered. Alteration consists of fine grained quartz and sericite in the groundmass. Locally, tabular sericitized plagioclase can by observed, as well as rare shattered quartz eyes. Tourmaline is common, up to 5%, as disseminated radiating clusters of crystals, and as fine black bands within the schist. Pyrite is widespread, up to about 10%, occurring predominantly as fine grained, euhedral, disseminated crystals and less commonly as narrow veinlets parallel to foliation. Locally stockworking pyrite veinlets are seen.

The upper contact of the quartz-pyrite-sericite schist is marked by a quartz feldspar porphyry intrusive and by a foliated biotite granondiorite intrusive. Quartz sweat type veining is common within the latter intrusive. The intrusives are in turn overlain by a unit which Wong and Hoffman (1989) describe as an andesitic volcanic and assign to the Cache Creek Group.

Outcrop on the property is quite limited, particularly in areas underlain by the quartz-pyritesericite schist and the argillite.

The Lav property exhibits many of the characteristics of a transitional porphyry-epithermal Au-Ag (+Cu, As, Sb) system as described by Panteleyev (1996). This type of deposit is typified by pyritic stockworks and veins in subvolcanic intrusive bodies, with stratabound to discordant massive pyritic replacements, veins, stockworks, disseminations and related hydrothermal breccias in the country rock. Mineralization occurs in the uppermost levels of intrusive systems, and commonly in coarse-grained quartz-phyric intrusions. The ore mineralogy is principally pyrite (commonly auriferous), chalcopyrite, tetrahedrite and tennantite. Zonation with depth is common. Alteration mineralogy is dominantly pyrite, sericite and quartz, with a long list of subordinate alteration minerals including kaolinite, tourmaline, barite and chlorite. Controls of mineralization for this deposit type are primarily porous volcanic units, bedding plane contacts and unconformities. Secondary controls are structural features, such as fault zones. A typical geochemical signature for this style of mineralization includes Au, Cu, Ag, As, Sb, Zn, Cd, Pb, Fe and F. At deeper levels Mo, Bi, W and locally Sn are present. Some deposits show enrichment of additional elements.

Deposits of this type have a considerable range in size and grade. Examples include Equity Silver, in central British Columbia, with a mineable reserve of 30 million tonnes grading 0.25% Cu, 86 g/t Ag and 1 g/t Ag, and Kori Kollo in Bolivia, with 10 million tonnes of oxide ore grading 1.62 g/t Au and 23.6 g/t Ag, and 64 million tonnes of sulfide ore grading 2.26 g/t Au and 13.8 g/t Ag.

The host rocks, alteration, mineralogy and geochemical signatures on the Lav property are consistent with those described by Panteleyev (1996) for a transitional porphyry-epithermal Au-Ag deposit and suggest that this model could be applied to guide exploration on the property. It also suggests the potential for a sizeable target of higher grade, within the large area of alteration.

#### 4.0 ROCK SAMPLING

Ten rock samples were collected from outcrop on the Lav property, as shown on Figure 3. Rock sample descriptions are contained in Appendix 1.

Samples were shipped to Chemex Labs in Vancouver for preparation and analysis (31 element ICP plus gold by 30 gram Fire Geochem, AA finish). Analytical results are contained in Appendix 1. One sample was submitted for petrographic examination at Cominco's Research Lab in Vancouver. The thin section description for this sample is also contained in Appendix 1.

Sample #	Au	Ag	Hg	Pb	Zn	Мо	Sb
	<u>(ppb)</u>	<u>(ppm)</u>	<u>(ppb)</u>	<u>(ppm)</u>	<u>(ppm)</u>	<u>(ppm)</u>	<u>(ppm)</u>
Lav 99-01	<5	<0.2	<10	2	2	1	<2
Lav 99-02	440	7.4	270	108	6	15	50
Lav 99-03	<5	0.2	<10	2	24	1	<2
Lav 99-04	<5	<0.2	<10	<2	28	<1	2
Lav 99-05	15	1.6	50	16	180	3	<2
Lav 99-06	40	0.2	10	28	8	<1	<2
Lav 99-07	120	1.4	160	114	92	1	<2
Lav 99-08	<5	<0.2	<10	4	10	<1	<2
Lav#1	118	1.2	-	-	-	-	-
Lav # 2	100	0.9	-		-	-	-

Analytical results for select elements are listed in the following table, and shown in Figure 3.

Anomalous gold (440 ppb) was returned from sample Lav 99-02. The sample was collected from subcropping quartz-pyrite-sericite schist near the eastern boundary of the Lav #1 claim, in the area of the main 2+ km long gold+multi-element soil anomaly described previously and detailed by Wong and Hoffman (1989). Sample Lav 99-02 was also anomalous in Ag (7.4 ppm), Pb (108 ppm), Hg (270 ppb), Mo (15 ppm), Sb (50 ppm), and Bi (6 ppm).

The quartz-pyrite-sericite schist is best exposed in the Becker Lake roadcut, at about the 8 km mark. This area was sampled in some detail (Lav 99-05, 06, 07; Lav #1) and returned anomalous gold values to 120 ppb (Lav 99-07) and 118 ppb (Lav #1). This area also showed anomalous Hg (to 160 ppb), Pb (to 114 ppm) and Zn (to 180 ppm). Sample Lav 99-06 was also significantly anomalous in P (1060 ppm).

Panteleyev (1996) describes the geochemical signature of a subvolcanic Au-Ag-Cu deposit (transitional from porphyry to epithermal environments) as being elevated values of Au, Cu, Ag, As, Sb, Zn, Cd, Pb, Fe and F, with Mo, Bi, W and locally Sn at deeper levels. Previous soil, rock and core sampling from the property, combined with the current rock sampling program, confirm that elevated gold on the Lav property is associated with a suite of elements consistent with such a deposit type.

Sampling during 1999 has indicated that Hg is also anomalous in the system. Mercury was not analyzed for during the previous programs on the property. Geochemical zonation of Hg and of other elements, both lateral and vertical, may help to guide exploration on the property.

#### 6.0 RECOMMENDATIONS

Previous work on the Lav property was all of a very widespread nature. Soil samples were collected at 50 metre intervals on 150 metre spaced lines. No detailed geological mapping was done. No geophysics has been completed on property, nor has any trenching been done. Detailed follow-up work is recommended to test for high grade sulfide zones within the large area of quartz-pyrite-sericite alteration. This work should include close spaced gridding, ground geophysics (mag, VLF-EM and SP), close spaced soil sampling, and detailed geological mapping and rock chip sampling.

## 7.0 REFERENCES

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## **APPENDIX 1**

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Rock Sample Descriptions and Analytical Results

## SAMPLE LOCATIONS AND DESCRIPTIONS

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Sample #	NTS	UTM	Sample Description
	Map	Coordinates	
T 00.01	Sheet	247002 E	Or must an in in an dant month of normaling 0.5.0.6 m
Lav99-01	082L/06	347903 E	Qtz sweat vein in roadcut, south of powerline. 0.3-0.6 m
		5569327 N	wide. White, v fing grained, bluey-tinged massive vn
			with tr fine euledral diss py. Minor patches of fine
			silvery py. Another vn in roadcut ~ 150 m up road –
			looks parallel to schistocity and to 99-01 vein.
Lav99-02	082L/06	347299 E	Siliceous qtz-sericite schist, streaky black siliceous bands
		5570495 N	with fine sulfides and silica in sericite schist with diss
			euhedral py.
Lav99-03	082L/06	347232 E	Abundant qtz sweat vn subcrop and float under
		5569650 N	powerline, as in 99-01. White, massive qtz with rusty
			fracs, V fine grained qtz, minor patchy py. Hosted m
			grey-black fing slate – graphic pyrite schist. Fol'n at
			292/60N. Vns par to fol'n.
Lav99-04	082L/06	348211 E	On powerline right of way – outcrop of tufa. Dark grey-
		5569840 N	black on fresh surfaces, v vuggy with hollow tubes, avg 3
			mm across. Mod soft. Calcareous. Finely banded.
			White, powdery on weathered surfaces.
Lav99-05	082L/06	345100 E	In road cut on main road, just N of access road to ddh
		5569850 N	90-8. Rusty oxidized qtz-py-seric schist with 2 cm
			vitreous clear-white rusty qtz vn.
Lav99-06	082L/06	345100 E	In road cut on main road, about 50 m N of sample 99-5.
		5569900 N	Well foliated seric schist, fol'n at ~90-110/90. W white,
			soft, rusty sheared surfaces. 2-5% rem py cubes. Minor
			str oxidized py vnlts par to fol'n.
Lav99-07	082L/06	345100 E	In road cut, 10 m N of 99-06. Chip across 1.5 m in seric
		5569910 N	schist. White, mod soft. Rusty surfaces and yellow
			jarosite stain. 10-15% fine silvery diss py and py along
			fol'n.
Lav99-08	082L/06	347590 E	Grab over about 10 square metres, on knoll north of
		5570350 N	small pond. White vitreous massive brittle qtz vn. Minor
			rusty surfaces. No sulfides. Bull type qtz.

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## Chemex Labs Ltd.

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Comments: ATTN: LINDA CARON FAX: JOHN KEMP

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CE	RTIFIC	ATE A9924106			ANALYTICAL P	ROCEDURES	2 of 2	
(PVL) • CA	RON, LINE	)A	CHEMEX	NUMBER SAMPLES	DESCRIPTION	METHOD		UPPER LIMIT
Project P.O. # : samples : This rep	submitte ort was ;	d to our lab in Vancouver, BC. printed on 09-AUG-1999.	2147 2148 2149	24 24 24	V ppm: 32 element, soil & rock W ppm: 32 element, soil & rock Zn ppm: 32 element, soil & rock	ICP-AES ICP-AES ICP-AES	1 10 2	10000 10000 10000
	SAMI	PLE PREPARATION						
CHEMEX	NUMBER SAMPLES	DESCRIPTION						
205 226 3202 229	24 24 24 24 24	Geochem ring to approx 150 mesh 0-3 Kg crush and split Rock - save entire reject ICP - AQ Digestion charge						
* NOTE The 32 trace Element digest: Ba, Be, T1, W.	element metals is for V lon is po , Ca, Cr	ICP package is suitable for in soil and rock samples. which the nitric-aqua regia pssibly incomplete are: Al, , Ga, K, La, Mg, Na, Sr, Ti,						

### .td. Chemex Labs L

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ſ Page Number 1-A Total Pages 1 Certificate Date: 09-AUG-1999 Invoice No. 19924106 P.O. Number Account PVL

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Project : Comments: ATTN: LINDA CARON FAX: JOHN KEMP

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								CERTI	FICATE	OF AN	ALYSIS	i A	992410	)6	
SAMPLE	PREP CODE	Au ppb FA+AA	Au FA g/t	Au ppb AFS	Pt ppb AFS	Pd ppb AFS	Ag ppm	A1 %	ya Ya	B ppm	Ba ppm	Be ppm	Bi ppm	Ca X	Cđ ppm
	<u> </u>													0103	
							V.A	1.94	- 1	T < 10	50	< 0.5		0.13	< 0.3
HECK 33-01	205 226						1.1	1.00	10	< 10	250	× 0.5		2.00	× 0.5
HIGH DO VI									14		30	20.5	1 2 2	< 0.01	< 0.5
BECK JJ ON	105 210	43					< 0.1				< 1u	÷ 0.5		0.06	e 0.5
HEEK 33-VJ	205 120							0.13				C 012		0107	
	100 110	30				1.	+	1.25	+	< 10	1			1.00	
LIGH JJ OF	203 220						014					205		0.71	< 0.5
LAV 99-01	205 226	< 5			<b>_</b>		< 0.2	0.07	12	< 10		< U.5	+	0.03	< 0.5
TAV 99-07	205 225	440					7.4	0.27	62	< 10	10	< 0.5	< 2	0.78	0.5
LAV 99-03	205 226	< 5					0.2	0.04	1 * 4	10	60	< 0.5	1 < 2	>15.00	< 0.5
LAV 99-04	205 226	< 5				÷	< 0.2	0.14	29 20	< 10	60	< 0.5	< 2	0.12	< 0.5
TAV 99-05	205 226	15					1.0	0.50	16	< 10	60	< 0.5	< 2	0.75	< 0.5
LAV 99-06	205 226	40						0.50			50	< 0.5	< 2	0,07	< 0.5
LAV 99-07	205 226	120			)		1.4	0.03	12	1 < 10	10	< 0.5	< 2	0.23	< 0.5
LAV 99-08	205 226	< 5					< 0.4							0.03	
									_ <u></u>			- 0.5		1.01	
												~ ~ ~ ~ ~			
-101 77-01	- 200 A20														
		105					- 0.0	0.11		IU		-			
VH 99-01	203 220	_	_											0.20	
															4

CERTIFICATION:\_

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To: CARON, LINDA

PO BOX 2493 GRAND FORKS, BC VOH 1HO

Page Number : 1-B Total Pages :1 Certificate Date: 09-AUG-1999 Invoice No. : 19924106 P.O. Number : PVL Account

212 Brooksbank Ave., North Vancouver British Columbia, Canada V7J 2C1 PHONE: 604-984-0221 FAX: 604-984-0218

Chemex Labs Ltd.

AnaMical Chemists \* Geochemists \* Registered Assayers

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Project :

Comments: ATTN: LINDA CARON FAX: JOHN KEMP

CERTIFICATE OF ANALYSIS

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#### PREP Cu Fe Cr Ħg Χ Co. Ga La Mg Mn Mo Na Ni р SAMPLE CODE mqq ppm % ppb × 2 ppm ppm ppm ppm ۲ ppm ppm ppm أغفد . .... . . 0.05 ا م -co... 805 63 A1 200 ---..... 11 i . 91 110 0.02 47V . .... ----------. . . . ÷... 880 17 LAV 99-01 205 226 5 191 30 0.93 < 10 < 10 < 0.01 < 10 0.05 100 < 0.01 7 1 20 LAV 99-02 205 226 4 55 14 2.82 < 10 270 0.40 < 10 0.03 5 15 0.05 1 110 LAV 99-03 205 226 15 215 38 2.19 < 10 < 10 0.01 < 10 0.01 290 1 < 0.01 13 100 LAV 99-04 205 226 28 5 6 0.70 < 10 < 10 0.04 < 10 0.73 3140 < 1 0.01 92 110 LAV 99-05 205 226 4 85 37 4.53 < 10 50 0.21 10 0.02 125 3 < 0.01 45 940 LAV 99-06 205 226 1 47 9 2.07 < 10 10 0.22 < 10 0.04 120 < 1 0.01 1060 LAV 99-07 205 226 6 58 23 4.83 < 10 160 0.25 < 10 0.03 30 1 0.05 4 830 LAV 99-08 205 226 213 1 1 0.52 < 10 < 10 0.04 < 10 0.03 155 < 1 < 0.01 3 90 Ball Part --2210 . ... 10 170 0 22 10 0.05 90 5 \_\_\_\_\_ 105 .... 42.... 4.6 استه عنده 670 4.1 0.06 2 500 40 33-01 0.03 73.01 TO 10 urv. 74 22 303 C 0.01 05 50 1111 1:01 110 1 44 1330 0.01 103 110 75 200-l-.... .... - 0.0I VH-77-04 12

CERTIFICATION:

A9924106

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## Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

North Vancouver 212 Brooksbank Ave., North Vancouver British Columbia, Canada V7J 2C1 PHONE: 604-984-0221 FAX: 604-984-0218 To: CARON, LINDA

PO BOX 2493 GRAND FORKS,BC V0H 1H0

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7 ſ PVL Account

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Project : Comments: ATTN: LINDA CARON FAX: JOHN KEMP

								CERTI	FICATE	OF AN	ALYSIS	A9	924106		
SAMPLE	PREP CODE	add add	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	T1 ppm	D D D	A bbm	W ppm	Zn ppm			
							0.01		10	15	. 10	342			
							0.01	10	10	25	10	82		l l	
						16-	0.03.	10	10	12	< 10	40	-	ļ	
	005 005						0.10	10	10	110	10	22			
			0.74	6 2	< 1	51	< 0.01	< 10	< 10	4	< 10	2			_
AV 99-01	205 226	2	U	<u> </u>			- 0 01	- c 10	< 10	4	< 10	6			
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NV 99-03	205 226	< 2	0.34	2	< 1	1025	< 0.01	< 10	< 10	5	< 10	180			
AV 99-05	205 226	16	0.05	< 2		34	< 0.01	< 10	< 10	3	< 10	8			
XV 99-06	205 226	40	0.10				- 0 01	- <u>- 10</u>	< 10		< 10	92			
AV 99-07	205 226	114	2.13	< 2		68	< 0.01	< 10	< 10	4	< 10	10			
AV 99-08	205 226														
											10				
02-39-04	103 110														
H-33-V1	100 220	10	1.44			210				30					
8 33-02	205 220			-						7				Į	
99-04 	203 220														



# LEICESTER DIAMOND MINES LTD.

#1300 - 409 Granville Street Vancouver, British Columbia, V6C 1T2 Telephone: (604) 685-5015 • Facsimile: (604) 684-9877

## MEMORANDUM

To: Linda Caron

Date: November 15, 1999

From: Ken Carter

## Re: Hand Sample Descriptions - Vernon Gold Properties

LAV 1 Felsic schist, pyrite weathered, fine dissemination

LAV 2 Core samples, felsic schist, disseminated pyrite, pale grey, fine grained

.15.1999 11:55AM B	MTS MANAGEMENT INC	N0.280	P.4/4
LEICESTER DIAMONDS-> Job	(99 V990785R		
KETTLE/LAV/MAC	Date	991110	
LAB NO	FIELD NUMBER	Au(3)	Ag(2)
		g/t	g/t
R5512020		0.911	- 520.2
113512021		02.514	621.4
K33 (2020		0.103	
N0312028		0.000	A
		0.000	0.0
R9912032	LAV-1	0.118	1.2
R9912033	LAV-2	0.1	0.9
19312034		<u> </u>	10.2
R9912035	19/AC+2	2.077	
12030			
K9912037			

## ANALYTICAL METHODS

Au(3) Fire Assay

2

Lead Collection / AA Finish (low level) 1/2 A.T.

Ag(2) Acid decomposition / AAS



Mr. Ken Carter Leicester Diamond Mines Ltd. #1300 - 409 Granville Street Vancouver, B.C. V6C 1T2

1 December, 1999

Dear Ken:

## RE: Vernon Area Microscopy / E.R.L. Job V990785R

Three samples were submitted as part of a larger suite for preparation into thin sections and petrographic study. The samples are numbered as follows:

<u>LAB NO.</u> R99:12032 LAV-1 R<del>99:12034 MAG 1</del> <del>MAG 1</del> <del>MAG 1</del>

Following are brief microscopic descriptions:

## SAMPLE R99:12032 (LAV-1).

In transmitted light, very fine grained sericite and fine grained sutured quartz (possibly feldspathic in part) is sheared or otherwise foliated. Equant to tabular grains of what is now believed to be sillimanite after/retrograde from kyanite are in the 0.5 - 1.0 mm size range. These tabular to equant features form aggregates to several mm's in size. Several percent of cubic forms, now limonite, are believed to have been pyrite. They are in the 0.5 - 1.0 mm size range.

The rock is believed to be a sheared, weathered meta-volcanic or related rock.

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**R99:12032.** Fine grained foliated sericite and quartz contains equant to tabular sillimanite (?) after kyanite (?). Iron oxide after pyrite. Transmitted light, magnification 25x.



R99:12032. As previous photomicrograph but crossed nicols.

280 µm

 $280~\mu m$ 

**APPENDIX 2** 

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Cost Statement

## COST STATEMENT

TOTAL:	\$ 698.00
Fuel	\$ 80.00
<u>Transportation</u> Vehicle rental 1 day @ \$50/day	\$ 50.00
<u>Geochemical Analyses</u> 8 rock samples @ \$21.00 (31 element ICP + Au) 2 rock samples @ \$10.00 (Au, Ag) 1 thin section description @ \$80.00	\$ 168.00 20.00 <u>80.00</u> \$ 268.00
<u>Labour</u> L. Caron 1 day @ \$350/day	<u>\$ 350.00</u> \$ 350.00

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## **APPENDIX 3**

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## Statement of Qualifications

## STATEMENT OF QUALIFICATIONS

I, Linda J. Caron, certify that:

- I am an independent exploration geologist residing at 717 75th Ave (Box 2493), Grand 1. Forks, B.C.
- I obtained a B.A.Sc. in Geological Engineering (Honours) in the Mineral Exploration 2. Option, from the University of British Columbia (1985).
- I graduated with a M.Sc. in Geology and Geophysics from the University of Calgary 3. (1988).
- 4. I have practised my profession since 1987 and have worked in the mineral exploration industry since 1980.
- 5. I am a member in good standing with the Association of Professional Engineers and Geoscientists of B.C. with professional engineer status.
- 6. I jointly own the claims described in this report, with partner John Kemp. I have personally completed or supervised the work described in this report.

Linda Caron, P. Eng.