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## ASSESSMENT REPORT

on

# 1999 GEOLOGY and ROCK SAMPLING PROGRAM

Kettle Property

# NTS 82E/15 E

Lat: 49° 55' 00" N Long: 118° 42' 00" W

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NOV 2 0 2000

COVERMMENT AGENT

November, 2000

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

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# GEOLOGICAL SURVEY BRANCH



# 1.0 SUMMARY

The Kettle property is located about 55 kilometres southeast of Vernon, B.C, with access via the Kettle Forest Service road. The main area of interest is situated just west of the Kettle River. The property consists of ten 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.

The Kettle property covers a large alteration system, within which a number of zones of mineralization with high grade Au, Ag, Pb and Zn values occur (Minfile 82ENE044). The property has potential for both large, bulk tonnage, porphyry-style targets, as well as smaller high grade veins.

Four main areas of mineralization (the South Zone, Pb Zone, HG Zone and Stockwork Zone) are known on the claims. The zones are spatially related to a large area of intensely altered Cretaceous intrusive which intrudes metasediments and metavolcanics of the Permian Anarchist Group. The alteration occurs over an area of approximately 2 km x 500 m and appears to be largely controlled by the major north trending Kettle River fault.

Previous work on the property has identified numerous IP chargeability anomalies, as well as numerous Au soil anomalies which have not had any follow-up work. The geology and structure of the property are poorly understood. In particular, the understanding of the different intrusive events and the alteration (variation, distribution and controls) is limited.

Follow-up work should include detailed geological mapping. It is recommended that particular attention be paid to understanding the alteration on the property. A portable short-wave infrared spectrometer (PIMA) would be an effective tool for such studies. Studies of geology and alteration on the property should be done in conjunction with prospecting to examine previously identified geophysical and geochemical anomalies.







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## 2.3 History

The history of the property (previously known as the SAB claims) is well described by Callaghan and Yorke-Hardy (1996) and by Mark (1989). Mr. Yorke-Hardy is the past owner of the property, having held the claims continuously since the property was discovered in 1972 until they were allowed to lapse in 1999. As such, he is most knowledgeable about the history of the claims and the previous work completed on the property (much of which was not filed for assessment). The following account is taken directly from Callaghan and Yorke-Hardy (1996).

The property is located about 13 km west of the Lightning Peak silver camp which saw limited production until the mid 1930's and 24 km southwest of the Monashee gold camp which produced lode and placer gold and silver ore. These old camps continue to be explored for precious metals.

The SAB property was first staked by R.W. Yorke-Hardy and S.E. Arnold in 1972 and was explored by the prospectors until optioned to Mohawk Oil Co. Ltd. in early 1980. The property was extensively mapped by Mohawk during the period from 1980 to 1984 during which time geological mapping, sampling, soil geochemistry, VLF-EM, magnetometer, IP/resistivity and self potential surveys were conducted in conjunction with diamond drilling and bulk sampling/metallurgical test work. A total of 10,281 feet of drilling was conducted to test geophysical targets and shear zones. Data collected by Mohawk was interpreted as indicating a "porphyry copper" type deposit with the large stockwork area representing the "breccia cap" associated with such a deposit. The extensive clay zones encountered were interpreted to be the result of faulting or intense alteration associated with the "porphyry copper" model. In late 1983 and throughout 1984 the intense alteration zones were interpreted as relating to epithermal alteration.

Detailed IP/resistivity and BQ diamond drill holes drilled during the 1984 exploration program by Mohawk Oil Co. Ltd. confirmed areas of intense clay alteration at depth at the intersection of north-south faults with east-west shearing. Mineralized vein material was encountered and associated with massive pyrite in white quartz, in quartz-sericite altered intrusives. This mineralization was thought to confirm the existence of a structurally controlled epithermal type mineralized system of quartz, or quartz-calcite veins and veinlets infilling the main fault and shear system or the cross-cutting, eastwest structures.

Due to changing plans within Mohawk Oil Co. Ltd., which resulted in the discontinuation of all their mining activities and the termination of the option on the SAB property, the results of the 1984 program were not fully assessed. A compilation of available IP data on the SAB claims was performed on behalf of Y-H Technical Services Ltd. by Geotronics Surveys Ltd. in 1989.

In 1991 a compilation of previous data was completed by Callaghan and Yorke-Hardy (1996), was well as additional prospecting and rock sampling. The claims were allowed to lapse in the spring of 1999. The current Kettle claims were staked in the summer of 1999, as part of a regional exploration program in the area by the author and partner John Kemp, funded through a Prospector's Assistance Grant.

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

A number of days were spent prospecting, sampling and compiling previous data on the Kettle property during the period September 3, 1999 to November 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 two days of work each by L. Caron and J. Kemp has been included in the Cost Statement and filed with the Notice of Work. The balance of the expenditure filed is field expenses and analytical costs related to the samples collected during this time.

A total of twenty-three rock samples were collected and shipped either to Chemex Labs in Vancouver or to EcoTech Labs in Kamloops for preparation and analysis. Analysis was for 31 element ICP plus gold by 30 gram Fire Geochem, AA finish.

# 3.0 GEOLOGY, MINERALIZATION AND STRUCTURE

The geology of the upper Kettle River area is described by Little (1957) and is shown on Figure 3. In the vicinity of the Kettle property, the area is underlain by a large body of granodiorite belonging to the Jurassic/Cretaceous Nelson plutonic complex. A large pendant of sediments and volcanics of the Paleozoic Cache Creek Group occurs east of the claims, in the Lightning Peak area. Smaller pendants of these rocks are also seen elsewhere within the intrusive, including on the Kettle property. To the west and south of the claims, the Nelson intrusive rocks are unconformably overlain by Eocene to Oligocene Kamloops Group volcanics and volcaniclastics. Late stage (Tertiary) basalt and lamprophyre dykes intrude the older rocks.

The Kettle Property covers a known mineral occurrence (Minfile 082ENE044 - SAB). Mineralized quartz veins were first discovered on the property in the early 1970's. Mohawk Oil optioned the claims in 1980 and did extensive testing using a porphyry copper model. Later exploration focussed on a structurally controlled epithermal system. Significant drilling has been done on the property, mostly as close spaced shallow holes testing the veins in the South, Pb and HG Zones.

Four main mineralized zones are known to occur on the property, as shown on the attached property map (Figure 4) and detailed below. The zones are spatially related to a large area of intensely altered Cretaceous intrusive which intrudes metasediments and metavolcanics of the Permian Anarchist Group. The alteration occurs over an area of approximately 2 km x 500 m and appears to be largely controlled by the major north trending Kettle River fault.

## South Zone

A N-NW striking, shallow W dipping quartz vein is exposed in large open cuts along the main Stove Creek road, and in trenches, over a strike length of 185 metres. The vein ranges from 0.5 to 4.1 m in width, and averages about 1.5 m wide. It is hosted in unaltered Kspar megacryst porphyry, and cut by late decomposing biotite-lamprophrye dykes.

Grab samples from the vein have returned values to 1.6 oz/t Au, 4.5 oz/t Ag, 1.7% Pb and 2% Zn.

# Pb Zone

Several trenches and open cuts expose a mineralized shear zone over a strike length of 300 metres. The shear strikes about 070-080°, with a moderate-steep S dip, and averages about 30 cm in width. The shear hosts a narrow mineralized quartz vein. Drilling has tested the zone to 75 metres depth and it remains open at depth. Surface sampling from the zone has returned grades of:

20.8 oz/t Ag over 2.5 m (in the K1 trench, hangingwall to the main shear)

56.7 oz/t Ag over 2.4 m

and grab samples to 32 oz/t Ag, 35% Pb and 10% Zn from vein material. Copper and gold are



# Legend to Accompany Figure 3

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from: GSC Map 6-1957 Little (1957)

weakly anomalous. Silver reportedly occurs as fine grained ruby silver and as native silver.

A small portable mill set up on the property in the early 1980's largely processed material from the Pb Zone (with minor ore from the South and Hg Zones).

## HG (High Grade) Zone

In the HG zone, subparallel quartz veins and veinlets are hosted in altered intrusives. The veins contain about 5% sulfides (py, cpy, bornite and galena), with accessory scheelite mentioned. Grab samples from surface have returned up to 0.96 oz/t Au and 15.2 oz/t Ag, while more detailed chip sampling from the zone gave an average of 0.24 oz/t Au and 2.4 oz/t Ag from one vein, over an average 0.75 m width. Drilling has returned values to 0.5 oz/t Au, 8.2 oz/t Ag, 1.3% Pb, 0.1% Zn, 0.1% Cu over 0.7 m from this zone (ddh 82-13).

The zone has been tested by trenching and drilling and remains open on strike (and at depth?). The full width of the zone is not exposed, with the greatest exposed width being about 3 metres.

A 24.2 ton bulk sample was collected from this zone in the early 1980's and shipped to Slocan City for mill testing. The sample returned an average grade of 0.11 oz/t Au, 4.2 ozt Ag.

## Stockwork Zone (Including Yuggy Vein, Switchback Vein, Bluff Vein)

The Stockwork zone is an area of about 300 x 450 metres where sulfide mineralization is associated with a brecciated quartz stockwork in qtz-seric-py altered intrusive. Veins are bull-type quartz with pyrite, plus accessory scheelite and zircon. The zone has a large coincident IP anomaly as well as a coincident Au soil anomaly. Several larger veins within this zone are given individual names (Vuggy Vein, Switchback Vein, Bluff Vein). In general Au and Ag values to date have been low from the Stockwork Zone. One drill hole (ddh 80-3) did returned 0.7 m of 0.112 oz/t Au and 1.3 oz/t Ag.

# 4.0 ROCK SAMPLING

Twenty-three rock samples were collected from the Kettle property. Samples were collected in four main areas, the South Zone, the Pb Zone, the HG Zone and the Stockwork Zone, as shown on Figure 4. Rock sample descriptions are contained in Appendix 1.

Samples were shipped either to Chemex Labs in Vancouver or to EcoTech Labs in Kamloops for preparation and analysis (31 element ICP plus gold by 30 gram Fire Geochem, AA finish). Analytical results for select elements are listed in the following table, and shown on Figure 4.

Sample #	Au	Au	Ag	Ċu	Pb	Zn
	<u>(dad)</u>	<u>(g/t)</u>	(ppm)	<u>(ppm)</u>	<u>(ppm or %)</u>	(ppm or %)
CV99-03	-	53.25	154.2	203	1.66%	2.1%
CV99-23	35	-	1090	345	34.45%	9.5%
CV99-33	75	-	2.4	4	16	1
CV99-34	-	4.28	191.2	23	230	9
CV99-35	5	-	0.8	3	<2	<1
CV99-36	10	-	2.2	4	6	16
CV99-37	40	-	7.2	3	52	3
7702	835	-	420	384	9.32%	13.4%
7703	790	-	145	248	4.65%	9.98%
7704	-	4.07	72.5	1000	214	200
7705	-	4.90	74.4	221	162	128
7706	60	-	1.8	9	14	48
7707	-	15.1	208	703	112	38
7708	20	-	1.4	6	10	60
7709	130	-	6.4	7	28	20
7710	10	-	0.6	4	2	30
7711	60	-	11	4	20	14
R9912026	+	8.31	528.2	-	-	-
R9912027	-	32.97	521.4	-	~	-
R9912028	105	-	2.3	-	~	- [
R9912029	56	-	1.6	-	~	-
R9912030	44	-	0.8	-	-	-
R9912031	35	-	0.6	-		

Samples CV99-03, 12026, 12031 and 7703 were collected from the vein material and wall rock at the South Zone, where a N-NW striking, shallow W dipping quartz vein is exposed in large open cuts. Sample CV99-03, a grab sample of mineralized vein material, returned values of 53.25 g/t Au, 154.2 g/t Ag, 1.66% Pb and 2.1% Zn. Other samples of vein material collected (12026 and 7703) returned 8.31 g/t Au; 528.2 g/t Ag and 4.65% Pb; 9.98% Zn, respectively. The sample of wall rock collected (12031) was not anomalous in gold or silver.

Two samples were collected from vein material at the Pb Zone (CV99-23 and 7702). The Pb Zone consists of a 070-080° striking, moderately steep S dipping shear zone, hosting a

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narrow, mineralized quartz vein, strikes. Both samples collected showed very high lead and zinc values (to 34.45% Pb and 13.4% Zn) with elevated gold and silver (to 835 ppb Au and 1090 ppm Ag).

Six samples (CV99-34, 12027, 7704-7707) were collected from a number of sub-parallel quartz vein and veinlets, and from altered intrusive host rock at the HG zone. Sample 12027 returned very high gold and silver values (32.97 g/t Au and 521.4 g/t Ag). Other samples of vein material had gold values ranging from 4 g/t to 15.1 g/t, and silver values ranging from 72.5 g/t to 191.2 g/t. Copper was elevated, to 1000 ppm, but neither lead or zinc was anomalous from this zone. The sample of altered wall rock collected from the HG zone (7706) was not anomalous.

Eleven samples were collected from the Stockwork Zone (including the Bluff and Switchback veins). Samples from the Stockwork Zone include CV99-33, 35-37, 12028-30, 7708-11), as shown on Figure 4. The Stockwork zone is an area of about 300 x 450 metres where sulfide mineralization is associated with a brecciated quartz stockwork in qtz-seric-py altered intrusive. The zone has a large coincident IP anomaly as well as a coincident Au soil anomaly. Several larger bull type quartz veins occur within this zone. Gold and silver values from samples collected from the zone were anomalous, to 130 ppb Au (sample 7709) and 7.2 ppm Ag (CV99-37).

# 6.0 RECOMMENDATIONS

The Kettle property covers a large alteration system, within which numerous zones of mineralization with high grade Au, Ag, Pb and Zn values are known to occur. The property has potential for both large, bulk tonnage, porphyry-style targets, as well as smaller high grade veins.

Previous work on the property has identified numerous IP chargeability anomalies, as well as numerous Au soil anomalies which have not had any follow-up work. The geology and structure of the property are poorly understood. In particular, the understanding of the different intrusive events and the alteration (variation, distribution and controls) is, at best, limited.

Follow-up work should include detailed geological mapping. It is recommended that particular attention be paid to understanding the alteration on the property. A portable short-wave infrared spectrometer (PIMA) would be an effective tool for such studies. Studies of geology and alteration on the property should be done in conjunction with prospecting to examine previously identified geophysical and geochemical anomalies.

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# 7.0 REFERENCES

Minfile 082ENE044 - Sab

Callaghan, B. and R.W. Yorke-Hardy, 1996.

Assessment Report of the Sab Mineral Claims. Geological Mapping, Data Compilation & Interpretation, for Y-H Services and Snowflake Mines Ltd. Assessment Report 24,533.

Little, H.W., 1957.

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Mark, D., 1989.

Report on Geophysical and Geochemical Surveys Over a Portion of the Sab Claims. Assessment Report 18,533.

# APPENDIX 1

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 Rock Sample Descriptions and Analytical Results

# SAMPLE LOCATIONS AND DESCRIPTIONS

Sample #	UTM Coordinates	Sample Description
CV99-03	377985 E 5530561 N	Grab of qtz vn material from stockpile at South Zone pit, adjacent to Stove Ck road. Shallow dipping (20-30 degrees) qtz vn, avg ~ 0.5 m
		thick where visible, in Kspar megacryst porphyry, cut by black decomposing biotite lamprophyre dykes. Vein is minz'd with up to 5- 10% sulfides, py, gal sphal. Streaky banded sulfides + pods.
CV99-23	378060 E 5530960 N	Pb Zone. Large pit in Kspar megacryst porphryr, cut by fine grained lamp dykes. Minor qtz vns and vnlts, to 5 cm, trending 505-060/90. Zone of vning/shearing is ~ 10 m wide, traceable on strike for ~ 75m. Low density of vnlts, at most 2/ft. CV99-23 is sample of galena rich vein from waste dump/talus below pit. 10-15 cm wide vein. Massive galena (+py, cpy, sphal) in dirty quartz.
CV99-33	378075 E 5531840 N	Stockwork Zone. Silic'd, med grained, granular intrusive with 10-20% qtz as xtalline vnlts, dom subparallel and as flood patches. Tr euhedral py.
CV99-34	377960 E 5531575 N	HG Zone. Large trench/pit. White qtz vein with up to 20% sulfides, py+apy+tr cpy in weakly alt'd Kspar porphyry cut by black lamprophyre dykes. Main vein ~ 0.3 – 0.5 m wide, trends ~ 340/20 W. Poor exposure but looks like sev smaller parallel vns.
CV99-35	378164 E 5531860 N	Stockwork Zone – Switchback vein area. White bull qtz vn / blowout on flats. Lots of smaller vnlts, subparallel and sheeted, in silic'd intrusive with minor py.
CV99-36	378290 E 5531830 N	Bluff Vein. Rusty weathering, coarsely xtalline white qtz vn, locally vuggy. Tr patchy fine py (+apy?). Exposed in bedrock at base of talus slope. O/c is 1.5 m x 2 m, can't tell orientation. Vein at contact of black lamp dyke in Kspar megacryst porphyry.
CV99-37	~ 378165 E ~ 5531900 N	Stockwork Zone, near CV99-35. Rusty boxwork white qtz vn, large coarse qtz xtals, tr py. From blasted?/scaped area in flat cleared (but overgrown) area.

17-Aug-99

ECO-TECH LABORATORIES LTD. 10041 East Trans Canada Highway KAMLOOPS, B.C. V2C 6T4

Phone: 250-573-5700 Fax : 250-573-4557

## ICP CERTIFICATE OF ANALYSIS AK 99-359

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LINDA CARON BOX 2493 GRAND FORKS V0H 1H0

## ATTENTION: LINDA CARON

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No. of samples received: 27 Sample type: Rock PROJECT #: CV SHIPMENT #: None Given Samples submitted by: L. Caron

## Values in ppm unless otherwise reported

Value	r in ppin w															м	Ma	No %	ML	Р	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %		Mg 7	WU1				-010			10		0.0L		21	<b>N</b>	-10	- 30
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1	CV99-12F	8 90	0.6	0.37	с с	40	10	0.08	-1	103	206		5.83	<10	0.04	71		0.01	10	<10	<2	<5	<20	<1	<0.01	~10	-1	~10	<1	~
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16-Sep-99

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Phone: 250-573-5700 Fax : 250-573-4557

ICP CERTIFICATE OF ANALYSIS AK 99-473

LINDA CARON BOX 2493 GRAND FORKS, BC V0H 1H0

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ATTENTION: LINDA CARON

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No. of samples received: 11 Sample type: Rock PROJECT #: CV SHIPMENT #: None Given Samples submitted by: L. Caron

Values in ppm unless otherwise reported

120

1.0 1.76

65 145

<5 1.86

1 20 64

<b>F</b> † #	Tao #	Au(opb)	Αa	AI %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La Mg %_	Mn	Мо	Na %	Ni	P	Pb	Sb	<u>Sn</u>	Sr	<u>Ti %</u>	<u>ບ</u>	<u>v</u>	W	<u>Y</u>	Zn
1	CV99-23	35	>30	0.10	690	35	<5	0.62	948	15	77	345	>10	<10 0.01	506	<1	<0.01	1	<10 >	10000	270	<20	30	<0.01	<10	1	<10	<1 >	10000
2			- 2.2	0.01			-	0.02	•		205		0.00		120		-0.01	40	-10	420		~20	-,	0.04		-	310	<1	
1	CV99-25		0.6	0.68	<5	60	<5	0.35	<1	25	102	466	8.41	<10 0.26	244	- 111	0.02	13	330	130		N20	<u> </u>	-0.01	~10	7	-10	-1	36
- 4	CV99-26	15	8,4	0.57	- 15	25	<5	0.13	3	3	293	10	1.22	<10 0.16	102	22	<0.01	9	240	2094				-0.01	~10	40	~10	7	7
4	CV99-27	10	0.4	0.73	25	25	10	0.02	<1	5	67	5	1.82	<10 0.45	209	10	<0.01		-010	132	<0	<20	29	×0.01	<10	12	~10	'	1
					45		- 5	0.40		12	100	14		9 0 72	526	8	<0.01	48	600	140	<5	<20	9	<0.01	<10	31	<10	13	7
e	CV99-28	55	1.6	0.83	10	230	<0	0.40	51	12			1 22	<10 <0.01	34		-0.01	â	160	34	<5	<20	<1	<0.01	<10	2	<10	6	3
- 1	CV99-29	20	0.2	0.43	25	35	<5	0.03	ملتقسير			~	4.00		058	5	0.02	Ě	-	46	<5	<20	135	< 0.01	<10	10	<10	22	5
8	CV99-30	<5	<0.2	0.39	<5	-		3.13	<1	د	60	4	1.00	~10 0.10	110	9	~0.01	ž	1080	94	e5		- 1	_<0.01	<10	5	<10	11	3
	CV99-31	45	-04	0.47	- 75	40	<5	0.18	<1	2	87	â	1.91	<10 <0.01	118	0 4	~0.01	4	1000	756	-0	<20	<1	<0.01	310	-	-10	<1	129
- <b>1</b> .	CV00-02	80	8.0	0.21	35	20	5	0.03	31	2	119	6	2.70	~10 <0.01	132	4	~0.01		180	100		2/1		<0.01	510	- 6	<10	51	88
1	101.00-1	- 1000	*12.V	0.15	-10000	30		- 1,99	220	- 19-	- 141	33	4.69	· • (U - U.45	5/3	Э	NU.U 1	50	000		220	-20		-0.01	10	v			
QC DA	TA:																												
Respl	it:																												
1	CV99-23	35	- 30	0.11	740	45	<5	0.66	933	16	90	315	>10	<10 <0.01	512	<1	<0.01	2	<10	>10000	270	<20	33	< 0.01	<10	1	<10	<]	*10000
Repea	t																					-00		-0.01	-10	4	~10	~1	~10000
i	CV99-23	45	>30	0.09	710	40	<5	0.63	953	15	76	324	>10	<10 <0.01	492	<1	<0.01	2	<10	>10000	305	<20	32	< 0.01	~10	1	~10	~1	-10000
Stand	ard:																				-	-00			~10	76	~10		74

77 3.82 <10 0.97 680

O-TECH LABORATORIES LTD. Frank J. Pezzotti, A.Sc.T. De B.C. Certified Assayer

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Page 1

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GEO'99

15-Nov-99

ECO-TECH LABORATORIES LTD. 10041 East Trans Canada Highway KAMLOOPS, B.C. V2C 6T4

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Phone: 250-573-5700 Fax : 250-573-4557 ICP CERTIFICATE OF ANALYSIS AK 99-642

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LINDA CARON BOX 2493 GRAND FORKS V0H 1H0

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### ATTENTION: LINDA CARON

No. of samples received: 8 Sample type: Rock PROJECT #: CV SHIPMENT #: 1 Samples submitted by: L. Caron

### Values in ppm unless otherwise reported

Et#.	Tag #	Au(ppb)	Ag	AI %	As	Ba	Bi Ca %	Cd	Co	Cr	Cu	Fe %	La Mg %	Mn	Mo Na%,	NI	P	Pb	Sb	Sn	Sr Ti%	U	v	W	Y	Zn
1 •	* UQ		-0.2	0.00	÷	10	· · · · · · · · · · · · · · · · · · ·	41	-02	31	104	4.00	20 0.40	- 104	15 0.01	155	00-00			- 20	10 0.04	-10	20			
2	CV59-33	75	2.4	0.16	<5	50	10 0.01	<1	3	137	4	1.59	<10 <0.01	27	6 <0.01	3	270	16	<5	<20	9 <0.01	<10	2	<10	<1	1
3	CV99-34	>1000	>30	0.09	<5	55	85 0.27	<1	21	110	23	>10	<10 0.02	314	14 <0.01	4	<10	230	<5	<20	7 < 0.01	<10	1	<10	<1	9
- 4	CV99-35	6	0.8	0.02	<5	<5	<5 <0.01	<1	-1	200	3	0.41	<10 <0.01	45	6 <0.01	4	<10	<2	<5	<20	<1 <0.01	<10	<1	<10	<1	<1
5	CV99-36	10	2.2	0.08	5	15	5 0.03	<1	3	175	4	1.26	<10 0.01	231	6 < 0.01	4	100	6	<5	<20	<1 <0.01	<10	2	<10	<1	16
6	CV99-37	40	7.2	0.13	<5	10	10 0.01	<1	2	214	3	0.99	<10 0.03	88	7 <0.01	5	90	52	<5	<20	<1 <0.01	<10	3	<10	23	3
-	0100-00	10	0.0	0.30	5	1£J				ĴŹ	19	1.20		- 287	0 0.01	2 T	770			-10	1731 40.01					
8	10100-0		0.0	0.23	400	- zo		<del>.</del>	- 3	110	0	1.35	-10 -0.01	- 38	7 -0.01	<u> </u>	350	- 10		-20	42 40.01				بيني مولكي بيني	
																			-				-			-

## OC DATA:

V/607B

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whn Kemp

Resplit	tr																													
1	BC99-01	<5	<0.2	0.54	<5	10	<5	1.54	<1	31	36	185	4.24	20	0.42	175	15	0.01	128	3740	4	<5	<20	68	0.02	<10	23	<10	30	52
Repeat 1	# BC99-01	<5	0.4	0.52	<5	10	<5	1.52	<1	30	30	183	4.10	20	0.38	176	15	0.01	127	3760	2	<5	<20	70	0.02	<10	23	<10	30	48
Standa GEO'9	ird: Ə	115	1.0	1.80	65	160	10	1.86	<1	18	64	80	3.86	<10	0.94	684	3	0.02	24	760	20	10	<20	56	0.10	<10	71	<10	8	67

ECO-TECH LABORATORIES LTD. Frank J. Pezzotti, A.Sc T. ഷ B.C. Certified Assayer

Page 1



## ASSAYING GEOCHEMISTRY ANALYTICAL CHEMISTRY ENVIRONMENTAL TESTING

10041 E. Trans Canada Hwy., R.R. #2, Kamloops, B.C. V2C 6T4 Phone (250) 573-5700 Fax (250) 573-4557 email: ecotech@mail.wkpowerlink.com

# **CERTIFICATE OF ASSAY AK 99-359**

- LINDA CARON BOX 2493
- GRAND FORKS
- **V0H** 1H0

# ATTENTION: LINDA CARON

No. of samples received: 27 Sample type: Rock

- PROJECT #: CV
- SHIPMENT #: None Given
- Samples submitted by: L. Caron

ET #.	Tag #	Au (g/t)	Au (oz/t)	Ag (g/t)	Ag (oz/t)	As (%)	Cd (%)	Pb (%)	Zn (%)
3	CV99-3R	53.25	1.553	154.2	4.50	-	-	1.66	2.10
<del>9</del>	CV99-9R	0.10	0.280	153.8	4.43				0.12
20	-TOP99-4R	27.90			1.09	<del>-2.84</del>			
QC/D/	<u>ATA:</u>								
Stand STD-N	lard: N	1.45	0.042	-	-	-	-	-	-

70.0

2.04

0.84

XLS/99

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P-TECH LABORATORIES LTD. EC Righk J. Pezzotti, A.Sc.T. B.C. Certified Assayer

19-Aug-99

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## ASSAYING GEOCHEMISTRY ANALYTICAL CHEMISTRY ENVIRONMENTAL TESTING

10041 E. Trans Canada Hwy., R.R. #2, Kamloops, B.C. V2C 6T4 Phone (250) 573-5700 Fax (250) 573-4557 email: ecolech@mail.wkpowerlink.com

# CERTIFICATE OF ASSAY AK 99-473

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LABORATORIES LTD.

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XLS/99

					17-Sep-99	
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Au (a/t)	Au (oz/t)	Ag (a/t)	Ag (oz/t)	As (%)	Pb (%)	<b>Zn</b> /%)
- 22.55	- 0.658	1090.0	31.79	- 2.50	34.45	9.50
22.90	0.668	-	-	-	-	-
1.40	0.041	-	-	-	-	-
	Au (g/t) 	Au         Au           (g/t)         (oz/t)           -22.55         0.658           22.90         0.668           1.40         0.041	Au         Au         Ag           (g/t)         (oz/t)         (g/t)           -         -         1090.0           -         -         1090.0           -         22.55         0.658           22.90         0.668         -           1.40         0.041         -	Au         Au         Ag         Ag           (g/t)         (oz/t)         (g/t)         (oz/t)           -         -         1090.0         31.79           -         -         1090.0         31.79           -         -         -         -           1.40         0.668         -         -	Au         Au         Ag         Ag         Ag         As           (g/t)         (oz/t)         (g/t)         (oz/t)         (%)           -         -         1090.0         31.79         -           -         22.55         0.658         -         -         -           1.40         0.041         -         -         -         -	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

Frank J. Pezzotti, A.Sc.T. B.C. Certified Assayer



15-Nov-99

10041 E. Trans Canada Hwy., R.R. #2, Kamloops, B.C. V2C 6T4 Phone (250) 573-5700 Fax (250) 573-4557 email: ecotech@direct.ca

# CERTIFICATE OF ASSAY AK 99-642

LINDA CARON BOX 2493 GRAND FORKS

**V0H** 1H0

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## ATTENTION: LINDA CARON

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LABORATORIES

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No. of samples received: 8

Sample type: Rock

PROJECT #: CV

SHIPMENT #: 1

Samples submitted by: L. Caron

		Au	Au	Ag	Ag
ET #.	Tag #	(g/t)	(oz/t)	(g/t)	(oz/t)
3	CV99-34	4.28	0.125	191.2	5.58

	QC	DATA:
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Standard: STD-M Mpla

1.69 0.049

70.0 2.04

ECO-TECH LABORATORIES LTD. Erank J. Pezzotti, A.Sc.T. B.C. Certified Assayer

XLS/99

Page 1



# MEMORANDUM

## DATE: November 15,1999

TO: LINDA CARON

CC:

FROM: GREG THOMSON

## RE: Kettle Property

Hi Linda,

Here are the sample results of the rock material I sampled at the Kettle property on October 26, 1999.

7701	-grab from cayed fronch on Mac property fine grain allered
	intruciverityks, groonish with porvasive fine grain areonopyrites
	7702 to 7711 (Kettle property)
7702	grabs of stock pile from Lead zone, propylitic altered intrusive with 10- 15% blebs coarse galena with pyrite
7703	south veins, grab of roadside quartz piles, sampled material contained 10-20% of mixed py, gal, sphal
7704	high grade vein, grab of footwall green qtz-ser altered intrusive, 5-10% medium -coarse pyrite + trc. Cpy
7705	high grade vein, 1.0-1.5 m chip across flattish vein exposure, 1-3% finemed, grain pyrite
7706	high grade vein, 0.5 m chip across weakly altered intrusive hanging wall, trc.py (same sample area as 7704,7705)
7707	high grade vein, same vein as 7705, but located approx, 5 m NW from 7705 location, only 0.5 m exposed for sample 7707 location (may be more extensive than trenched exposure, 3-5% coarse py with trc cpy
7708	stockwork zone, 0.5 m chip (arbitrary location), trc. Py
7709	stockwork zone, 1 m chip
7710	stockwork zone, grab from road/trench bank
7711	bluff vein, 1.5 m chip

If you need more details, please give me a call at (604) 640-5316. Regards,

Greg Thomson

									CI	ERTIF	CATE		NAL	/SIS		A9932	616		
SUPLI	PHIP COD3	An pph An 7A FA+AA oz/tan	Ag ppn	्रा भ	yz Dber	B P <b>P</b> B	Pra	3e ppo	ם נו בי	د ۲	دم الجر	ده <b>174</b>	rJ Erg	Cn ppg	Fe 1	Ça Ppm	E) ppo	5 1	La ppa
	-	- 10/1	14 (		14423		10		1.2	1. 24	/ ^ 5	- 11	11		5 72	. 10			10
7702 7703 7704 7705	205 226 205 226 205 226 205 226 205 226	035 790 4070 4900	>100.9 >100.0 72.6 74.4	0,57 0,03 0,90 0,55	770 26 18 19	4¢ < 10 < 10 < 10	10 < 10 40 50	(0.5 (0.5 (0.5 (0.5	<pre>&lt; 2 &lt; 4 2 &lt; 4 2 &lt; 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4</pre>	3.14 0.01 0.28 0.48	500 500 5.0 4.5	21 20 10 9	87 135 101 115	384 248 1000 221	7.99 3.51 7.72 4.48	10 10 < 10 < 10	1 ) 1 ) 1 ) 1	0.17 0.04 0.55 0.36	< 10 10 < 10 < 10 < 10
7706 7707 7708 7709 7710	205 226 205 226 205 226 205 226 205 226 205 226	60 >10009 0.441 20 130 10	1.8 >100.0 1.4 6.4 0.6	0.82 0.16 1.67 0.64 3.12	6 22 6 4 2	<pre>&lt; 10 &lt; 16 &lt; 10 &lt; 10 &lt; 10 &lt; 10 &lt; 10 &lt; 10</pre>	60 16 10 90 240	<pre> &lt; 0.5 &lt; 0.5 &lt; 0.5 &lt; 0.5 &lt; 0.5 &lt; 0.5</pre>	(2 36 (2 (2 (2	1.29 0.01 0.25 0.06 0.68	<pre></pre>	1 15 11 4 6	111 197 166 207 195	9 703 6 7	2.67 11.64 3.21 2.40 1.80	< 10 < 10 < 10 < 10 < 10 < 10	<1 1 (1 (1 (1	0.38 0.09 0.46 0.34	20 < 10 10 10

				~~~~	NGCT PA	<b>∧</b> 0.) <del>44</del>	94-4215			Comr	nents: CE	ATTN: FL		R CC		HCMSOI YSIS	ני •	19932	2616	
SA)(PLI		2 B	Xg 1	litato Alta	îni≣an ¥ro	5ŭ 5	Ti Fin	) PP#	Pb ppa	3	Sb pps	Sc Sc	sr ppa	Ti L	Tl pps	bber Q	b <b>ka</b> A	bbø K	In ppe	
702 703 7704 7705	205 205 205 205	226 226 226 226 226	0.24 0.08 0.05 0.14	910 3 40 520	20 3 3 < 4 <	D.64 0.45 0.01 0.01	< L < 1 4 4	270 650 1070 360	>10000 >10000 214 162	>5.00 >5.00 >5.00 -4.40	36 71 < 1 < 2	<pre>&lt; 1 &lt; 1 &lt; 1 &lt; 1 &lt; 1 &lt; 1</pre>	149 ( 12 ( 11 ( 19 (	0.01 0.01 0.01 0.01	< 10 < 10 < 10 < 10 < 10	50 ⊥L0 ∟0 < L0	5 ( 1 5 5	< 10 < 10 < 10 < 10	>10000 >10000 200 129	
786 787 788 789 718	205 205 205 205 205 205	226 226 226 226 226	0.43 0.01 0.59 0.05 0.27	1190 25 6/0 315 503	3 1 { 1 { 1 3	0.02 0.01 0.03 0.02 0.03	3	1050 < 10 1100 310 620	14 112 10 26 2	1.37 >5.00 0.37 0.29 0.64	<pre></pre>	2 < 1 2 < 1 1	64 < ) < 12 < 9 < 33 <	6.01 0.01 0.01 0.01 0.01	01 > 01 > 01 > 01 > 01 >	< L0 L0 < L0 < L0 < L0 < F0	23 4 23 10	( 10 ( 10 ( 10 ( 10 ( 10	40 30 50 20	

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# Chemex Labs Ltd.

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212 Brocksbank Ave. North Vancouver British Columbia, Canada V7J 201 PKONE: 604-984-0221 FAX: 604-984-0216

## To: TECK EXPLORATIONS LTD.

T

359 - 272 VICTORIA ST. KAMLOOPS, BC V2C 125 Page Number 1-A Total Pages 1 Centricate Date: 11-NOV-99 Invoice No. : [9903263 P.O. Number : Account : HPO

Project : CO4100 Comments: ATTN: R. FARMER CC: GREG THOMSON

1 1 1 1

					CE	RTIFIC	ATE OF A	NALYSIS	A99	933283	
SAMPLE	PREP Code	λg Fλ g∕t	5P 5	Zn t							
07702 07703 07707	212 212 212	420 145 208	9.32 4.65	13,40 9,98		-					
						3					
						-					

66-11-53

14:14 P.04.

TECK

# 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

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# Date: November 15, 1999

From: Ken Carter

# Re: Hand Sample Descriptions - Vernon Gold Properties

	Boulder of mineralized zone from portal, described variously as altered macheer, andesite - shear zone, clay altered needs petrography - assay Au, Ag + petrographic description
NAC 2	Rubble from Trench 2 in an area 50 m north and downslope of portal, same description as MAC 1 - assay Au, Ag
MAC 3	Core from "ore zone" of hole 30, same description as MAC 1 - assay Aur Ag
MAC 4	<ul> <li>core from granodiorite host, hole 31</li> <li>petrographic description needed</li> <li>Au, Ag waay</li> </ul>
Kettle 1	Kettle South Zone - quartz vein, galena, pyrite, sphalerite - assay Au, Ag
Kettle 2	Kettle high grade zone - quartz, massive pyrite, malachite stain, chalcopyrite, bornite, galena - assay Au, Ag
Kettle 3	Main Stockwork zone - quartz, ± biotite, weakly disseminated, coarse pyrite, possible carbonate (Fe carbonate) alteration
Kettle 4	Stockwork area, Switchback vein, quartz, bull quartz, pyrite, weathered pyrite - assay Au, Ag

# Kettle 5 Altered intrusives, feldspar porphyry + quartz stockwork,, 1-5% sulphide - assay Au, Ag

# Kettle 6 South Zone wall rock, granodiorite, feldspar veinlets - assay Au, Ag

EAV-1 Pelsie schist; pyrite weathered; fine dissemination

Let V 2 ---- Ocressamples, felsic schist, disseminated pyrice, pale grey, fine grained

/.15.1999 11:55AM	BMTS MANAGEMENT INC	N0.280	F.4/4
LEICESTER DIAMON Job	IDS-X99 V990765R		
KETTLE/LAV/MAC	Date	991110	
LAB NO	FIELD NUMBER	Au(3)	Ag(2)
	•	g/t	g/t
R9912026	KETTLE-1	8.311	528.2
R9912027 R9912028	KETTLE-2 KETTLE-3	32.971 0.105	521.4 2.3
R9912029 R9912030	KETTLE-4 KETTLE-5	0.056 0.044	1.6 0.8
R9912031	KETTLE-6	0,035	0.6
R99 12092			
R9312034	MAC-1	<del></del>	+6.0
110312035	MAC-2	2.577	
R6012007			

# ANALYTICAL METHODS

Au(3) Fire Assay

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

Ag(2) Acid decomposition / AAS

**APPENDIX 2** 

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**Cost Statement** 

# COST STATEMENT

<u>Labou</u>	<u>17</u>					
	L. Caron	2 days @ \$350	/day		\$	700.00
	J. Kemp	2 days @ \$200	/day		<u>¢4</u>	400.00
					φI	100.00
Geoch	nemical Analyse	es				
	23 rock sampl	ies @ \$25.00, in	cluding shippir	ıg		
		(31 element IC	P + Au)		\$	575.00
Transi	A has nortation	ccommodation				
<u>Ttanş</u>	Vahicia rental	2 days @ \$50/	veh		\$ 1	00.00
	Fuel	2 08/3 @ 400/	uay		Ψ.	50.00
	Room and Bo	ard - 4 man days	@ \$50/dav		2	200.00
		,	• •		\$ 3	350.00
<u>Miscel</u>	laneous					
	Report (copyir	ng map and text)			\$	15.00
	Field Supplies	1				35.00
					\$	50.00

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TOTAL: \$2,075.00

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# **APPENDIX 3**

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Statement of Qualifications

## STATEMENT OF QUALIFICATIONS

I, Linda J. Caron, certify that:

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- 1. I am an independent exploration geologist residing at 717 75th Ave (Box 2493), Grand Forks, B.C.
- 2. I obtained a B.A.Sc. in Geological Engineering (Honours) in the Mineral Exploration Option, from the University of British Columbia (1985).
- 3. I graduated with a M.Sc. in Geology and Geophysics from the University of Calgary (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.

p. Con of L. J. CARON Linda Caron, P. Eng.

Nou 20/00 Date

