# **GEOLOGICAL AND GEOCHEMICAL REPORT**

# ON THE

## **Rateria Property**

**Kamloops Mining Division** 

# NTS 092I.036

#### **Prepared for**

# HAPPY CREEK MINERALS LTD. 38151 Clarke Drive Box 1852 Squamish, BC VON 3G0

By

D. Blann, P.Eng. Standard Metals Exploration Ltd.

April 2005

#### **Table of Contents**

1.	Location and Access	3
2.	Claim Status	3
3.	History	3
4.	Regional Geology	5
5.	Property Geology	6
6.	2004-2005 Results	8
7.	Discussion	9
8.	Conclusions	. 10
9.	Recommendations and Budget	. 11
10.	Statement of Costs	. 12
11.	References	. 13
12.	Statement of Qualifications	.14

#### Tables

1)	Mineral Tenure	Back
2)	Silt Sample Summary of Results	Back

#### Figures

- 1) Property Location
- 2) Mineral Tenure Location
- 3) Regional Geology
- 4) Regional Aeromagnetic Survey
- 5) Geology and Silt Sample Location
- 6) Geology and Induced Polarization Chargeability Compilation
- 7) Induced Polarization Resistivity Compilation

#### Appendices

1) Assay Certificates

#### Summary

The Rateria property is located approximately 10 kilometres southeast of the Valley Copper-Lornex mines, Highland Valley, and approximately 50 kilometres north of Merritt British Columbia.

Less than 5% outcrop occurs on the property, with till, sand and gravel deposits of 18 metres recorded. Historical trenching, drilling and rare outcrop suggests the property is underlain by the multiphase Guichon batholith, Upper-Triassic Lower Jurassic in age, and contains hornblende granodiorite, biotite-hornblende granodiorite, biotite quartz porphyry and dykes of aplite, quartzfeldspar porphyry. These rocks are part of a westward zoned, north striking intrusive complex of Chataway, Skeena, and Bethsaida varieties, oldest to youngest, respectively, the latter two being host to the Valley and Lornex deposits. Large scale structures cut the Rateria property in north, northeast and northwest trending, steeply dipping structures. Quartz, sericite, kaolin, along with variable concentrations of iron oxide, malachite occurs in fractures, and locally contain bornite, chalcocite, native copper. In the Jay 11 area, percussion drill holes of between 90-140 feet depth in 1971 returned 0.57% copper in the last 30 feet of hole D-8c, 645 ppm copper in the last 10 feet of hole D-8, and 437 ppm copper in the last 10 feet of hole D-7. Along with drill logs indicating increasing iron oxides, these holes, in part, may not have reached below the oxidized portion of an underlying porphyry copper-molybdenum system, with potential for supergene zones of chalcocite to occur. Thorough exploration of this area was likely affected by an historical claim boundary, and no publicly filed exploration occurred beyond 1972 until 2000 on the property

After the Rateria property was staked in 1999, Cominco Ltd. Performed a reconnaissance scale, deep induced polarization survey in 2000, and returned anomalous zones of chargeability and resistivity in proximity with the Jay 11 area, and southwest.

In 2004-2005 geology, GPS surveying, and 8 stream sediment samples were obtained from creeks draining the Jay 11 and a new un-explored IP anomaly to the southwest, and returned 644 ppm copper, 60 ppm molybdenum in sample 05R-8, and 1519 ppm copper, 57 ppm copper, 57 ppm molybdenum in sample 05R-8, and 1519 ppm copper, 57 ppm copper, 57 ppm molybdenum in sample 05R-8, and 1519 ppm copper, 57 ppm molybdenum in sample 05R-8, and 1519 ppm copper, 57 ppm coppe

The presence of Bethsaida, Skeena variety intrusive rocks, strong district-scale faults, widespread quartz-sericite-kaolinite- iron oxide alteration and associated bornite and chalcocite, and induced polarization geophysical, soil and silt geochemical anomalies suggest potential for a large Highland Valley style porphyry copper-molybdenum system with locally high grade copper supergene development in the Three Creeks-Jay 11 area and to the southwest.

5/16/2005

2

# 1. Location and Access

The Rateria Property is located approximately 10 kilometers southeast of the Valley Copper-Lornex mine, Highland Valley, British Columbia (Figure 1). The property is centred on 120<sup>o</sup> 57" 27' West longitude and 50<sup>o</sup> 21" 59' North latitude, on NTS mapsheet 092I.036. Access to the property from Merritt, B.C., is via an all weather logging road, approximately 34 kilometres in length. Good quality, recently built logging roads transect the property. As the property is in relative proximity with the Valley Copper Mine and operating mill, infrastructure is excellent.

The Rateria property is situated within a plateau area between 1300 to 1550 metres elevation, and is underlain by thick blanket of sand and gravel of glacio fluvial origin. The forest is comprised of lodgepole pine and locally fir, birch, poplar and spruce, and grass covers the forest floor and open swampy areas. The area has burnt several times. The area is characterized by an interior climate; temperatures range from -40 to +40 degrees centigrade, and 75-100 cm of precipitation, occurs mostly as snow in the winter months.

# 2. Claim Status

The Rateria property is composed of one 20 unit claim, the Rateria, and ten two-post claims in the name of Brian Malahoff (Figure 2, Table 1). An option was signed in December 2004 with Happy Creek Minerals Ltd. whereby the company can earn a 100% interest in the property. This report was prepared to satisfy assessment requirements for one year on the Rateria property.

#### 3. History

The Rateria property covers a historical claim boundary between two different companies, Chataway Explorations Co. Ltd., and King Resources Company. This boundary was in effect between 1968 and at least 1973 for which exploration data is currently available. Work performed on the Rateria property between 1974 and 1999 is not known, and there are no public documents for work after 1973. It is assumed the Standard Metals Exploration Ltd 5/16/2005 3 land positions were, at least in part amalgamated into Highmont Mining Company, and later National Trust Company, and finally Valley Copper. By 1999 a large number of claims had lapsed, and the Rateria property was staked by B. Malahoff.

Between 1968 and 1973, the area of the Rateria property was subject to regional silt geochemistry (in part Rubianic method), grids, soils, geological mapping and low power induced polarization surveys, bulldozer trenching, road building, percussion and minor diamond drilling (References). The area near the historical property boundary was given low priority and little geochemistry, trenching or drilling was performed. In 1971, Asarco drilled percussion holes to depths of approximately 90-120 feet on average, on a 2000 foot grid, intersecting 0.57% copper in the last 30 feet of hole 71-D-8c. A 1972 diamond drill hole was located 45 metres west and drilled toward D-8c at -45 degrees; this hole was stopped in 0.06% copper and strong oxidation, at a depth of 225 feet, and appears not to have gone far enough to adequately test this zone. Percussion hole 71-D-8 returned 645 ppm copper in oxidized rock at a final depth of 110 feet (72-D-8), approximately 100 metres west of the diamond drillhole.

Approximately 100-300 metres north of the Rateria property, the Yubet prospect is reported to contain 30,000 tons grading 2.5% copper, with abundant chalcocite (Minfile 092ISE150), and a coincident soil geochemical anomaly trend south towards the historical and current claim boundary.

In 2000 Cominco Ltd. Optioned the Rateria property and commissioned an induced polarization survey (Bond, 2000), and was performed by Scott Geophysics, of Vancouver, B.C. A pole dipole array was used with an "a" spacing of 100 metres and "n" separations of 1 to 6, with a 10 kw generator. This work identified several strong through-going structural features comprised of slightly elevated chargeability and resistive values. Chargeability values are generally low, approximately twice background with values up to 7.0mV/V (Bond, 2000). It was concluded that the survey did not detect anomalous sulphide concentrations indicative of a large tonnage porphyry system.

In the fall of 2004, and Happy Creek Minerals Ltd optioned the Rateria property and performed silt geochemistry, gps surveying of topographic and historical features, and tied-in the historical work with current NAD83UTM control. Approximately 10 rock

specimen samples (9 float) collected during this time were reviewed and compared with the literature.

# 4. Regional Geology

The Rateria property is located within the Guichon batholith, 198+/-8my, Upper Triassic-Lower Jurassic in age, covering an area of approximately 1000square kilometres (McMillan, CIM Special Volume 15, 1976). The batholith is elongated in a northnorthwesterly direction, and consists of several nearly concentric phases having sharp to locally gradational contacts, and in part are brecciated (Figure 3). Intrusive phases are distinguished by their texture and composition after Northcote, 1969. Cross cutting relationships suggest younger intrusive phases appear in the central core of the batholith.

The oldest phase of the Guichon batholith is the Border or Hybrid phase, a fine to medium grained, mafic rich diorite, and quartz diorite and locally contains xenoliths of amphibolite, monzonite composition. The Highland Valley phase consists of Guichon and Chataway varieties. The Guichon variety is quartz diorite to granodiorite in composition, contains 15% mafic minerals, and the Chataway variety is hornblende granodiorite in composition with 12% evenly distributed mafic minerals.

The Bethlehem phase, hornblende porphyritic granodiorite in composition contains around 8% mafic minerals, and amoeboid quartz crystals. Skeena variety is similar to Bethlehem phase, however is comprised of coarser grained granodiorite, slightly lower mafic content, and coarser grained, subhedral to anhedral quartz.

The youngest intrusive phase of the Guichon batholith is the Bethsaida, biotite+/hornblende quartz porphyry monzonite to granodiorite in composition, and contains around 6% mafic minerals, dominantly biotite. The core of the Guichon batholith, including the Rateria property is within a regional magnetic low (Figure 4).

A swarm of porphyry dykes cut Bethlehem granodiorite north of the Valley Copper deposit, and dykes and small plugs of porphyry cut Skeena variety; some porphyry dykes appear as offshoots of Bethsaida phase (McMillan, 1976).

Mineral occurrences of copper, molybdenum occur widely distributed throughout the Guichon batholith, however, the large deposits are either associated with the dyke swarm, north of the Highland Valley, or occur in or near the contact of the Bethsaida phase and related dykes. The major deposits in and south of Highland Valley all appear younger than Bethsaida phase.

At the Valley and Lornex deposits, dominant ore-controlling fracture sets trend northnorthwest to northeast and locally east-southeast. The Lornex Fault strikes north, dips steeply with a dextral sense slip, cuts the length of the Guichon batholith; this fault appears to cut off the northwest end of the Lornex deposit, where a  $55-60^{\circ}$  west dipping breccia zone contains bornite, and >0.60% copper. Copper minerals are associated with strong cross cutting fault and fracture zones.

Copper sulphides occur in fractures filled with quartz, sericite (2M1 muscovite-McMillan, 1976), k-feldspar and green to brown colored biotite, and quartz vein stock work zones are developed locally. Hypogene copper sulphides consist dominantly of chalcopyrite, bornite, and minor digenite. A total sulphide content of only around 1% occurs in the ore zones, and is comprised of nearly equal amounts of chalcopyrite and bornite. A kaolinite alteration overprint of the potassic alteration assemblage occurs and is also spatially associated with ore zones. Pyrite is reported to occur in amounts of less than1% in a propylitic fringe to potassic alteration. Oxide minerals include limonite, malachite, digenite, native copper and possibly tenorite, and occur above hypogene copper sulphides zones.

Alkaline and felsic volcanic dike, flow, and tuff cut all previous units and are Eocene-Miocene in age. The area was covered by ice during glaciation, and removed in part Tertiary and older rocks, and deposited between 1 and 30 metres or more of till, glaciofluvial and lacustrine cover, with a 165<sup>0</sup> direction.

# 5. Property Geology

Less than 5% of the property is underlain by rock outcrops, and occur in limited exposures such as creek beds, old melt-water channels and locally crest of hills. Although widespread use of a bulldozer for trenching in the 1970' appears widespread, the depth of glacial deposits of 12-18 metres limited trenching effectiveness. Historical

Standard Metals Exploration Ltd

percussion and diamond drill logs, and outcrop mapping where available, and 2000 induced polarization and resistivity survey were used to make a geology base map of the property (Figure 5).

The western part of the property is underlain by the Bethsaida variety and occurs in north trending contact with Skeena variety to the east. To the east the Skeena variety occurs in north trending contact with Chataway variety. Locally dykes of Bethsaida, Skeena, Bethlehem varieties, and aplite, quartz eye and feldspar porphyry, and crowded porphyry occur. Fractures in outcrops trend northwest to northeast and locally east and contain variable amounts of quartz, and pale green sericite, kaolin and iron oxides. In surface exposures and drill chips or core, variable concentrations of chalcocite, bornite, cuprite and some native copper occur with limonite in quartz sericite-limonite filled fractures, and malachite occurs locally. Percussion holes drilled to depths of 90-140 feet locally encountered deep oxidation. Several percussion holes returned anomalous copper values at the end of the hole where chalcocite occurs. The strongest and most widespread alteration located to date occurs in the Three Creeks and Jay 11 area (Figure 5, 6).

The Jay 11 area is underlain by Bethsaida and Skeena variety rocks, cut by a northeast trending shear zone and Bethsaida dykes. Shallow depth percussion drilling performed in 1970 by Asarco returned widespread anomalous copper, and molybdenum was not reported. Results include 645 ppm copper in the last 10 feet of hole D-8, 0.57% copper in the last 30 feet of hole D-8c, and 437 ppm copper in the last 10 feet of hole D-7. Although lower copper values occur, hole C-8 returned strong increasing oxidation in the last 20 feet of the hole. The drill log for hole D-8a mentions separan added to last 40 feet of samples, with the log indicating increasing sericite alteration. A 1972 diamond drillhole angled -45 degrees attempted to undercut hole D-8c, and ended in oxidized, sheared Skeena variety and 0.06% copper at a final depth of 225 feet. (Willars, 1972). One area where trenching exposed bedrock at the Jay 11 prospect returned 0.14 and 0.60% copper in grab samples (Meyer, 1968).

To the north, a distance of approximately 700 metres, the Bob 6 area is underlain by Skeena variety cut by Bethsaida dykes, approximately 75 metres in width and trends  $345^{\circ}$ . Deep rusty weathering and widespread trace malachite, pyrite and chalcopyrite

occur. The Yubet (30,000 tons @ 2.25% copper) prospect is located just north of the property. To the east of the Jay 11 a distance of approximately 1 kilometre, the Three Creeks area is located in spatial proximity with the Skeena and Chataway variety contact and widespread and deep rusty weathering, and trace amounts of malachite occur over approximately 200 metres.

In the southeast corner of the Rateria property, the Moss 4 area is underlain by Skeena and Chataway rocks, and boulders contain quartz veins with bornite and chalcopyrite. Percussion hole E-11 returned increasing oxidation and up to 123 ppm copper at the end of the hole, 140 feet, and hole D-11 approximately 750 metres west encountered 100 feet of overburden and no bedrock.

#### 6. 2004-2005 Results

A total of 8 silt samples were collected between November 15<sup>th</sup>, 2004 and February March 2, 2005, and GPS surveying of historical exploration work, roads, and collection of 10 rock specimens from outcrop and float. Silt samples were collected from active streams containing cobble to boulder sized fragments, and fine silt and sand. Sample 05R-1 contained abundant organic material, and sample 05R-7 was comprised of dominantly clay material from a tree blow-down root wad, and is more of a till sample.

Silt samples of approximately 750 gm in weight were placed into kraft paper bags, tied closed, air dried for 4 days and shipped to Acme Analytical Laboratories in Vancouver for analysis by 36 element ICP-MS, and Loss on Ignition. Float rock sample taken from near the silt sample at 05-R9 are of orange-pink colored quartz biotite porphyry, cut by 5 mm quartz veins containing trace limonite and malachite; these rocks are consistent with altered Bethsaida phase. Rock outcrops, and silt sample locations and results are plotted on Figures 5, 6 and certificates of analyses in appendix 1.

Silt samples 05R-4, and 05R-8 returned 1.1 and 0.8 ppm silver, respectively, and anomalous copper and molybdenum concentrations occur in all samples, other than 05R-7, based on regional data.

#### 7. Discussion

The Rateria property is located in the southeast portion of the Guichon batholith, approximately 10 kilometres southeast of the Valley copper, Lornex mines, and Canada's largest. The property is 95% covered by glacial deposits of sand, gravel and till, however, outcrop, float and historical drilling suggests it is underlain by Bethsaida, Skeena variety intrusive rocks, representing the core, youngest phases of the batholith. Skeena variety rocks occur in north trending contact with Chataway variety in the eastern portion of the property. Large north northwest trending structures, and conjugate northeast to easterly trending structures occur, and may represent subparallel faults to the Lornex fault further west of the property.

A historical claim boundary appears to have limited exploration efforts in a very important part of the batholith, and work done comprised dominantly of shallow percussion holes frequently ending with increasing sericite, oxidation products, and locally copper grades at depths around 110-140 feet. The Jay 11 area is one area having widespread deep rusty weathering, and trace copper minerals, with percussion hole 1971 D-8c returning 0.57% copper in the last 30 feet of the hole, and remains open. Between 500 and 900 metres southwest of this area, silt samples 05R-8 and 9 returned 1644 and 291 ppm copper, and 60 and 2 ppm molybdenum, respectively.

In proximity with the historical claim boundary, an IP survey performed in 2000 identifies several chargeability and resistive anomalies that remain open west and north. Silt samples 05R-2, 3 and 4 draining this area returned between 600-1519 ppm copper and 37-57 ppm molybdenum and 1625 ppm copper, 4 ppm molybdenum in sample 05R-6. Silver values of up to 1.1 ppm occur in sample 05R-4.

Limited outcrop and extensive thick sand, gravel and till cover limits standard exploration effectiveness and an irregular shaped historical property boundary through this area also affected exploration. Whereas historical soil sampling was only moderately effective in picking up anomalies, usually in low lying areas, or water drainages, silt sampling appears more effective in identifying transported copper in water flowing at the water table.

9

The Rateria property is underlain by the core intrusive phases of the Guichon batholith, including the Bethsaida and Skeena varieties, host to the Valley Copper and Lornex mines, and large scale fault structures, sericite-kaolinite alteration, and pyrite, chalcopyrite, bornite, chalcocite sulphides occur.

Historical drilling of wide spaced percussion holes, and locally follow up diamond drilling were in most cases very shallow, under 140 feet in depth and often ended in broken up, oxidized, hematite, limonite stained rocks, leached of primary copper sulphides, and contain anomalous concentrations of copper in the form of chalcocite +/- bornite. The presence of an historical claim boundary through the Jay 11 and southwest has resulted in an under explored area with the last recorded work approximately 30 years ago.

Geology, structure, alteration and minerals present, and areas of anomalous induced polarization chargeability, soil and silt geochemistry suggest the presence of a large scale Highland Valley style porphyry copper-molybdenum deposit occurs, and may have an oxide-supergene zone developed in proximity with drilled areas, and several untested geophysical anomalies remain.

#### 8. Conclusions

The Rateria property is located approximately 10 kilometres southeast of the Valley Copper Mine, Highland Valley, in south central British Columbia. Excellent access and infrastructure is in place.

The Rateria property is underlain by Bethsaida, Skeena, Chataway varieties of the Guichon batholith, representing the youngest, core phases; these rocks are cut by dykes of quartz feldspar porphyry, and Bethlehem phase. Faults and fractures trend northwest to northeast, and locally easterly, and are filled by sericite, kaolinite, malachite, bornite, chalcocite, and deep rusty weathering occurs in the Jay 11 and Three Creeks area; minerals in these areas include chalcocite, bornite, malachite, and minor native copper, along with limonite, hematite.

An induced polarization survey carried out in 2000 identified large scale structures trending north, subparallel to intrusive contacts, and contains broad zones of weakly anomalous chargeability. Narrow highly resistive zones occur in spatial proximity with outcropping quartz porphyry dike, and adjacent low resistive zones are recessive

Standard Metals Exploration Ltd

weathering, and may represent strong fault zones, clay alteration, and in part supergene and hypogene copper-molybdenum zones.

In 2004 and 2005, geology and silt geochemistry was performed to test an IP anomaly on the west side of the property and returned up to 1519 ppm copper, 57 ppm molybdenum. Rock specimens obtained in 2004-2005 appear to fit the historical geology, and in one location malachite within 5 mm quartz veins of the Bethsaida variety was obtained just southwest of the Jay 11 prospect, and grab samples returned 0.14% and 0.60% copper in historical sampling of an outcrop.

The geology, structure, alteration and minerals present, induced polarization anomalies, and soil and silt sampling to date have identified potential for a large scale calc alkaline porphyry copper-molybdenum deposit on the Rateria property. Zones of oxidation occur to depths of 140 feet, and locally contain increasing copper grade at depth (71D-8c 0.57% Cu over the last 30 feet). These areas may be underlain by irregular shaped, structurally controlled zones of supergene chalcocite zones, similar to the Yubet (30,000 tons @ 2.25% copper) prospect located just north of the property.

Historically, systematic exploration of this area was affected by a claim boundary between two companies, and a significant portion remains under explored by drilling.

#### 9. Recommendations and Budget

#### Phase 1

Further work totaling \$200, 000 is recommended for phase 1.

- 1) Reconnaissance prospecting, silt sampling, GPS surveying of historical drill sites and roads.
- Diamond drilling of 4 holes, totaling 1200 metres across the northwest portion of the property.

David E Blann, P.Eng.

# 10. Statement of Costs

#### Period of Work

November 25-27, 2004, February 28-March 2, 2004

Wages	# days	\$/day	Totals
D. Blann, P.Eng	6	550	\$3,300.00
C. Matheson data entr	y 2.2	175	\$385.00
	-		\$3,685.00
Disbursements			
Truck	6	75	\$450.00
Fuel			\$165.00
Room/Board	5	75	\$375.00
Communications	6	5	\$30.00
Field Supplies			\$175.00
Analyses			
	#		
Assays	Samples	\$/Sample	
36 EL ICP-MS+ LOI silts	8	22	\$176.00
Historical data to metric and NAD83 UTM conversion	on		\$1,500.00
Report			\$1,500.00
			\$4,371.00
			I

Wages and	
Disbursements	\$8,056.00
10% on Wages and Disbursements	\$805.60
Subtotal	\$8,861.60
GST @ 7%	\$620.31
Total	\$9,481.91

#### 11. References

Bayley, E.P, 1970, Summary Report of Percussion Drilling Program, Chataway Exploration Co. LTD, Highland Valley Claim Group, for Asarco.

Bond, Lorne, P.Geo, 2000, Geophysical Report on the Rateria Mineral Claims, Kamloops Mining Division, for Cominco Ltd.Philp, RHD, Hawley, RG., 1971, Report on the Geological, Geochemical, and Magnetometer Surveys on the Roscoe Lake Property, Highland Valley, B.C., for Pathfinder Resources Ltd.

Hallof, Phillip G., Ashton W. Mullan, 1972, Report on the Induced Polarization and Resistivity Survey on the Chataway Claim Group, prepared for International Mogul Mines Ltd.

Meyer, W., Robinson, M.C., 1968, Report on Geological (petrographic) Survey of the Chataway Exploration Co LTd., Property, Chataway Lake, B.C., for King Resources Company.

Reed., AJ., 1971, Report on Geological and Geochemical work performed by Highmont Mining Corporation Ltd on the PEN claims, Highland Valley area, Kamloops Mining Division, B.C. Asst # 2901. (Note property is north of Rateria Claims)

Sanford, G.R., 1983, Diamond Drilling Report on the Roscoe 1 Mineral Claim, Highmont Mines, prepared for National Trust Company Limited, Ass# 11,369. (Note: Property is north of Rateria Claims)

Sutherland Brown, Editor, 1976, Porphyry Deposits of the Canadian Cordillera, CIM Special Volume 15.

Tsang, L.C.H., 1985, Percussion Drilling Report on the Roscoe 1 Mineral Claim, Kamloops Mining Division, Highmont Mining Corporation, prepared for National Trust Company Limited. Asst # 13824 (Note: property is north of Rateria Claims)

Willars, Jack G., P.Eng., 1972, Report on the Geological Survey and Diamond Drilling on the Property of Chataway Explorations Co. Ltd., for International Mogul Mines Limited. Asst # 4050.

# 12. Statement of Qualifications

I, David E. Blann, P.Eng., of Squamish, British Columbia, do hereby certify:

That I am a Professional Engineer registered in the Province of British Columbia.

That I am a graduate in Geological Engineering from the Montana College of Mineral Science and Technology, Butte, Montana, 1987.

That I am a graduate in Mining Engineering Technology from the B.C. Institute of Technology, 1984.

That I have been actively engaged in the mining and mineral exploration industry since 1984, and conclusions and recommendations within this report are based on regional exploration and property fieldwork conducted between 1996 and 2005.

Dated in Squamish, B.C., April 30, 2005

David E Blann, P.Eng.

Tables

Tenure #	Name	Owner	%	Mapsheet	Anniversary	Claim Standing	Units	Tag#
374747	HIGH GRADE 1	116699	100	0921036	2006.03.08	2006/MAR/08	1	691039M
374748	HIGH GRADE 2	116699	100	0921036	2006.03.08	2007/MAR/08	1	691040M
374749	HIGH GRADE 3	116699	100	0921036	2006.03.08	2007/MAR/08	1	691041M
374750	HIGH GRADE 4	116699	100	0921036	2006.03.08	2007/MAR/08	1	691042M
374751	HIGH GRADE 5	116699	100	0921036	2006.03.08	2007/MAR/08	1	691043M
374752	HIGH GRADE 6	116699	100	0921036	2006.03.08	2007/MAR/08	1	691044M
374753	HIGH GRADE 7	116699	100	0921036	2005.03.08	2006/MAR/08	1	691045M
374754	HIGH GRADE 8	116699	100	0921036	2005.03.09	2006/MAR/09	1	691048M
374755	HIGH GRADE 9	116699	100	0921036	2005.03.09	2006/MAR/09	1	691047M
374756	HIGH GRADE 10	116699	100	0921036	2005.03.09	2006/MAR/09	1	691046M
378880	RATERIA	116699	100	0921036	2005.07.20	2006/JUL/20	20	239551
								-

30

#### Analysis: GROUP 1DX - 0.50 GM LOI - LOSS ON IGNITION @ 1000 DEG. C.

SILT	Мо	Cu	Pb	Zn	Ag	Mn	Fe	As	Au	Sb	Bi	Ва	Na	К	W	Hg	LOI
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	%	%	ppm	ppm	%
05R-2	37.3	600.9	4.4	36	0.2	2509	4.17	6.6	1.8	0.3	0.2	824	0.012	0.05	0.4	0.09	22.5
05R-3	54.7	887	6.8	30	0.1	3202	8.94	18.3	1.5	0.4	0.2	1085	0.013	0.07	0.5	0.16	33.1
05R-4	56.9	1519	5.5	40	1.1	1038	6.24	16.8	2.6	0.5	0.2	957	0.015	0.08	1.0	0.20	23.6
05R-6	3.8	1625	5.2	27	0.6	223	2.18	7.2	2.6	0.5	0.2	507	0.013	0.06	0.6	0.10	14.1
05R-7	4.6	67	2	10	<.1	94	1.48	1.9	<.5	0.2	0.1	95	0.006	0.03	0.4	0.02	3.4
05R-8	60.6	1644.4	4.3	26	0.8	232	1.55	19.4	4.3	3.4	0.2	637	0.018	0.04	0.8	0.82	39.4
05R-9	1.8	291.4	6.7	24	0.2	184	1.66	2.2	3.2	0.7	0.2	478	0.024	0.04	0.1	0.07	14.9
																	Ash weight Total Weight
05R-1	47.6	1087.1	12.4	120	0.9	8772	4.91	7	14.7	2.2	0.2	321	0.085	1.38	0.5	0.01	4.59 29.9
Moss Mat																	

# Figures













	4.2-4.4 m			
15	Legend 19,57 ° 2004/2005 Silt samples Cu (ppm), Mo (ppm) D-8c (1972 PDH) 30 feet @ 0.57% Cu @ end of hole L 108005 2000 IP Survey Grid (Cominco Ltd) creeks_ dry wash	Cp bo CC mal Qtz Vns	Chalcopyrite Bornite Chalcocite Malachite Quartz veins Minfile Prospect/developed	Happy Creek Minerals Ltd Rateria Property IP Chargeability (mV/V) Fraser Filtered N=1-6 Mapsheet 0921036 NAD83 UTM: Zone 10 D. Blann, P.Eng. Apr 2005 Figure 6



	☑ <400			
15	Legend 19,57 ° 2004/2005 Silt samples Cu (ppm), Mo (ppm) D-8c (1972 PDH) 30 feet @ 0.57% Cu @ end of hole L 10800S 2000 IP Survey Grid (Cominco Ltd) creeks_ dry wash	CP bo CC mal Qtz vns	Chalcopyrite Bornite Chalcocite Malachite Quartz veins Minfile Prospect/developed	Happy Creek Minerals Ltd Rateria Property IP Resistivity (ohm-m) Fraser Filtered N=1-6 Mapsheet 0921036 NAD83 UTM: Zone 10 D. Blann, P.Eng. Apr 2005 Figure 7

Appendix 1

Assay Certificates On File with B.C. Government

ACME AN		LABORATOR credited			1993 (M. 1997) (M. 19	TINGS ST	e				P	HONE (	604)253	-3158 FA	X(60),323-	1716
			<b>a</b> 4	andard		MICAL /				10.003	0092	6				4 <b>4</b>
			<u> </u>	P.O. Box 1	152 38151	Clark, Squa	mish BC V	ICN 360	Submit	ed by: Da	ivid Bla	nn				
₩PLE#		Pb Zn Ag ppm ppm ppm				sr Cd Sb ppm ppm ppm		Ca %		Cr Mg Ba ann ≵ippnn					S Ga Se As ≵ppnrppnr g	
5R-1 TANDARD DS6	47.6 1087.1 11.3 124.7	12,4 120 .9 1 28.3 146 .3 2	6.2 19.4 87 4.2 10.4 6	72 4.91 7.0 9 37 2.79 20.8 6	.4 14.7 3.8 .4 44.2 3.1	663 .3 2.2 40 5.8 3.6	2 .2 114 1 4,9 54	.3.44 .70 .87 .07	7 50 17 6 14 184	9 .73 321 .7 .57 162	.038 60 .075 17	2.03 .0 1.86 .0	85 1.38 . 73 .16 3.	5 .01 6.7 .2 2 .24 3.2 1.7	.46 51.54.5 <.05 64.3	59 29. -
GROUP 1DX	( - 0,50 GM S	SAMPLE LEACHE	D WITH 3 M	L 2-2-2 HCL-	HND3-1120 A	1 95 DEG. (	C FOR ONE	HOUR, D	ILUTED T	0 10 ML, /	ANALYSED	BY ICP	-MS.			
(>) CONCE	NTRATION EXC TYPE: Vegeta	EEDS UPPER L	IMITS. SO	ME MINERALS	MAY BE PAR	TIALLY ATT	ACKED. RE	EFRACTOR	EY AND GR	APHITIC S	AMPLES C	CAN LIMI	t au solu	BILITY.		
Data 🖡	FA	DATE F	ECEIVED	: MAR 10 2	005 DAT	E REPOR	r Maile		Janch	18/05			and the	ato Lor	<b>x</b>	
										1		là là	Mer			
												U U U	<u> </u>	- h		
												13		ence Leang		
													$\sim$			

All results are considered the confidential [

	TICAL					LTD		<b>.</b>	52 Gl						í.	<u>\$</u> .	DUVE		8. d. y	124	1R5 ATE		PH	IONE	:(60	4)2	<u> 53 -</u>	315	8 FJ	) X	50	752	-17 A	16 <b>A</b>
						<u>st</u>											ERI DN 360				‡ A5 by: 0#													
SAMPLE#	Mo ppm			b Zn mippm			Со ррт	Min ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm p	Sr ppm p			Bi prin ppi	Ca		La ppm	Cr opm	Mg X	Ba ppm	Ti Xa	B ppm	A1 \$	Na X	K ≵PI	W Ho xm ppn			۲ ۲	Ga S opm pp	e LOI m %a
05R-2 05R-3 05R-4 05R-6 05R-7		600.9 887.0 1519.0 1625.0 67.0		5 40 2 27	.1	10.0	4.0	1038	8.94 6.24 2.18	16.8	19.6 20.6 14.6	2.6 2.6	3.3 1 3.2 1 3.0		.1 .1 .1 .1 <.1	.3 .4 .5 .5 .2	.2 6 .2 14 .2 14 .2 6 .1 5	1.34 1.06 	.105 .095 .041	71 68 72	23.6 26.8 23.0	.28 1	1085 957 507	.036 .041 .048 .043 .043	2 2 <1 2 <1 3 <1 2 <1 2 <1	.94 . .26 . .06 .	013 015 013	05 07 08 1 06 03	.0 .20 .6 .10			.11 .07 .12 .06 .05	8 1. 9 1. 5 1.	9 22.5 4 33.1 6 23.6 0 14.1 5 3.4
05R-8 05R-9 STANDARD D56/DOLO	1.8	1644.4 291.4 119.1	46.	3 26 7 24 2 141	.2	16.9 16.0 23.4	4.2	184	1.55 1.66 2.87	2.2	3.3	4.3 3.2 47.0	2.1	142 55 38 \$	.13 .1 5.83	.4 .7 .4 4	.28 .23 1.95	.82	.106 .048 .071	9	40.2 20.0 185.1	.30	637 478 168	.040 .088 .073	<1 1 2 2 17 1	.10 .	024 .	04	.8 .82 .1 .07 .2 .22	3.3	1<	.33 .05 .07	7.	4 39.4 5 14.9 2 45.6

GROUP 1DX - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-MS. (>) CONCENTRATION EXCEEDS UPPER LIMITS. SOME MINERALS MAY BE PARTIALLY ATTACKED. REFRACTORY AND GRAPHITIC SAMPLES CAN LIMIT AU SOLUBILITY. LOI - LOSS ON IGNITION @ 1000 DEG. C.

- SAMPLE TYPE: Silt SS80 60C

Data

DATE RECEIVED: MAR 10 2005 DATE REPORT MAILED: March 17/05 FA



All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.