GEOLOGICAL SURVEY BRANCH



26,760

Mineral Potential

of the

Golden Eagle Property

Atlin Mining Division British Columbia

prepared by

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15 December 2001

Lat. 59°49`N Long. 134°44`W

N.T.S. 104M15

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1 Introduction – Synopsis

The Golden Eagle claims are located within Yukon-Tanana Terrane rocks at the south margin of the newly-recognized Tintina Gold Belt. The claims feature volcanic and sedimentary rocks of three different ages - Paleozoic Boundary Range Metamorphic strata, Upper Triassic Stuhini Group rocks and Jurassic volcanic rocks possibly equivalent to the Hazelton Group - all of these units are hosts to significant volcanogenic massive sulphide (VMS) and gold deposits in British Columbia and adjacent Yukon and Alaska. The Llwellyn Fault traverses the claims - it is a long-lived fundamental crustal feature, which shows a close spatial relationship to several significant VMS and gold deposits. The drainage systems originating in the claims areas feature an exceptionally anomalous precious and base metal content in their stream sediments.

There are three main areas of interest on the property. At the Camp Zone, the Noranda Exploration Company outlined a strong gold-in-soil geochemical anomaly with values of up to 18,000 ppb Au over a strike length of 800 metres and a width of up to 400 metres. At the Carbonate zone, Noranda mapped an intense zone of carbonate alteration over a length of 5 kilometres. Gold-in-soil values reach 2000 ppb and a 3 metre chip sample from outcrop assayed >4% Cu and 6.4 g/t Au. At the Jessie Showing, a lens of heavy sulphide mineralization was sampled by Noranda and returned an assay of 4.13 g/t Au across a width of 4.0 metres with attendant high Zn, Pb and Ag values.

On September 10, 2001, the author and Dr. Kieran Downes of Marksmen Resources Ltd. undertook a one-day visit to the Golden Eagle Property by helicopter from Whitehorse. A traverse was completed on the ridge containing the Camp Zone and three soil samples were collected in the area of the strong gold-in-soil geochemical anomaly outlined by the Noranda Exploration Company in 1986 and 1988. In addition, at the Jessie Showing four chip samples taken across the face of the trench, and a sample of high-grade material from the dump. The samples taken from the Camp Zone confirmed the Noranda results, returning values of 5140, 3093 and 327 ppb Au. In addition, the trench samples at the Jessie Showing returned an average of 9.35 g/t Au, 42.9 g/t Ag, 654 ppm Cu, 6213 ppm Zn and 5127 ppm Pb over the four-metre width.

2 Location and Access

The Golden Eagle claims are located on an unnamed mountain range on the east side of Tutshi Lake 5 kilometres east of the Whitehorse-Skagway (Klondyke) highway which traverses the west side of Tutshi Lake. The Klondyke highway is a Class A paved road constructed to accommodate concentrate trucks bound for the deep-water port of Skagway. The Venus Mine mill with a capacity of 130 tonnes per day is 30 kilometres north of the property on the Klondyke Highway. The property is 65 kilometres northeast of the port of Skagway, Alaska and 40 kilometres south of Carcross, Yukon. The city of Whitehorse, located 105 kilometres north of the property, is the most convenient airport







and source of supplies. Charter helicopters are available at Whitehorse as well as Atlin, located 60 kilometres to the east. Two other large lakes, Moon Lake and Skelly Lake are located respectively northeast and south of the property.

Access is by helicopter from either Whitehorse or Atlin or from a staging point on the Klondyke Highway on the west side of Tutshi Lake.

3 Physiography and Vegetation

The property is located in the Tagish Highlands, east of the Coast Mountain Range. The Bennett-Tutshi-Tagish Lakes intermontane systems occupy long, narrow north-trending valleys in the area. Elevations range from Tutshi Lake level of 707 metres to mountain peaks of 1800 metres.

Lower elevations are forested with spruce, balsam fir, pine and poplar. Alpine conditions prevail above 1200 metres.

4 Claim Status

The property consists of three contiguous four-post mineral claims comprising a total of 33 claim units and a total of 850 hectares, all within the Atlin Mining Division. The claims are owned by R.H. McMillan and are currently under option to Marksmen Resources Limited. The Legal Corner Posts (LCPs) have a common location at 6631280N, 0516192E. The claims information is tabulated in the following table:

Claim Name	Tag Num.	Tenure Num.	No. Units	Date Staked	Expiry Date
Golden Eagle 2	234346	367760	9	1999/01/30	2002/01/30
Golden Eagle 3	234347	367761	15	1999/01/30	2002/01/30
Connor 1	234360	389673	9	2001/09/10	2002/09/10

5 Past Exploration Work

Exploration in the area dates back to the discovery of the Venus vein system in 1901. The Jessie showing, which is covered by the current Golden Eagle 3 claim, was originally staked as the Great Northern by Joe Bussinger in 1906. Work consisted of hand and blast trenching and in the 1929 Minister of Mines Annual Report (page 120), on what is believed to be the Jessie Showing, a 6 foot wide "shear zone" with chalcopyrite, pyrrhotite, galena and minor sphalerite is reported to have returned assays of 0.15 oz./ton Au, 23.6 oz./ton Ag and 4.9% Cu.

In 1981, Dupont Canada Ltd. and Kennco Exporations (Canada) Ltd. staked the area east of Tutshi Lake between Moon Lake and Skelly Lake based on anomalous silt sample results in regional surveys. Both completed limited programs of soil, silt and rock sampling in 1981 and subsequently allowed the claims to lapse. Kennco reportedly (Mackay and Reid, 1987) found minor sulphide mineralization in a sheared granodiorite.

Noranda initiated a regional program in the area in 1985 to evaluate the potential for volcanogenic massive sulphide deposits (VMS) in the Upper Triassic volcanic rocks. This work resulted in the discovery of pods and lenses of massive pyrrhotite in a sequence of cherts, tuffs and shales in Moon Creek, north of the current claims. In addition, whole rock analyses by Noranda (Mackay and Reid, 1987) identified an area of Na-depleted volcanic rocks south of Moon valley. In 1986 (Mackay and Reid, 1987), the Tut 1-3 claims were staked to cover a large carbonate alteration zone (the Carbonate Zone) and the potential source areas of gold-bearing float. Later in the summer, a program of rock, soil and silt sampling was undertaken in an attempt to locate the source of the gold-anomalous float - an extensive carbonate alteration zone was mapped south of Moon Lake, on the current Connor 1 claim. In addition, highly anomalous float up to 44,000 ppb Au was discovered in the cirque valley opposite the Jessie showing on the Golden Eagle 3 claim. A grid was established and 524 soil, 124 litho-geochemical, 25 silt and 3 pan concentrate samples collected - mainly from the Carbonate Zone area. In 1987 (Podolski, 1987), an AERODAT geophysical survey was flown - four frequencies of electromagnetic data was gathered, as well as two frequencies of VLF-EM and magnetic data. In 1988 (Duke, 1989), 153 soil samples, 2 silt and 77 litho-geochemical samples and additional geological mapping and prospecting was undertaken. Induced polarization (IP) surveys were completed on four lines on the Carbonate and Camp grids. Two diamond drill holes (286 metres) were completed on the Camp grid. A third hole (134.4 metres) tested an electromagnetic conductor on the West grid, north of the Golden Eagle 3 claim - the hole intersected massive graphite over 18 metres with up to 7% pyrrhotite and low gold assays.

Regional geological mapping was completed by Christie of the G.S.C. (1957) and more recently by Mihalynuk and Rouse (1988a and b) of the B.C. Geological Survey Branch. Stream sediment sampling was completed by the B.C. Government in 1988 Mihalynuk and Rouse (1988b) and 1993 (Jackaman et al, 1993) and the area was found to contain exceptionally anomalous results in gold (to 1080 ppb), gold indicator metals (As, Sb and Hg) and base metals.

The Golden Eagle 1 and 2 Claims were staked by R.H. McMillan in 1999 and optioned to Prism Resources Inc. Prism obtained the 1987 airborne geophysical survey completed by Noranda and contracted Peter E. Walcott and Associates (Walcott, 2000) to re-process this data and compile it on new topographic maps. The Connor 1 claim was staked on 10 September 2001 and transferred directly to Marksmen Resources Ltd.



Figure 4 - Geological Map of the Tutshi Lake Area (NTS 105M15) (after Mihalynuk and Rouse, 1988a)

6 Geology

The regional geology of the Tutshi Lakes area has been described by Christie (1957), Mihalynuk and Rouse (1988a and b) and Mihalynuk (1999). These reports and descriptions by Duke (1989) and Mackay and Reid (1987) form the basis for the following description.

Regionally, the Tutshi Lakes area lies on the western margin of the Intermontane Zone, east of the Coast Mountains. Geologically the area comprises the western margin of the Whitehorse Trough, a structure bounded on its western margin by the Llwellyn Fault. West of the Llwellyn Fault, Boundary Range Metamorphic strata of Paleozoic and possibly earlier age are considered to be part of the Nisling Assemblage or Yukon-Tanana Terrane (Mihalynuk, 1999). East of the fault, "island arc" volcanic and related sedimentary rocks of the Upper Triassic Stuhini Group represent Stikine Terrane. The Stuhini rocks are unconformably overlain by Lower to Middle Jurassic turbidites and conglomerates of the Laberge Group. Volcanic rocks of Jurassic, Cretaceous and Tertiary age succeed strata of the Laberge Group. Intrusive rocks ranging from mafic to felsic composition include subvolcanic equivants of the various volcanic assemblages. Hornblende-biotite granite and granodiorite of the Cretaceous Coast Mountains Batholithic Complex outcrop on the west margin of the area.

The oldest rocks on the Golden Eagle Property are Devonian to Permian upper greenschist facies "Boundary Range Metamorphic" strata - an "island arc type" assemblage composed of metavolcanic and metasedimentary strata. Lithologies include amphibolite, chlorite-actinolite schists, biotite (garnet) schists, muscovite schists and pyroxene schists as well as carbonate, quartzite and felsic volcanic rocks (Mihalynuk and Rouse, 1988a). Protoloiths were siltstones, greywackes, basalts, felsic pyroclastics and carbonate rock.

Five distinct lithological units have been recognized within Upper Triassic Stuhini Group rocks in the Tutshi Lake area (Mihalynuk and Rouse, 1988a). These are: variegated lapilli and ash tuffs with minor argillaceous wackes and limestones; cobble and boulder conglomerates; coarse pyroxene-porphyry pyroclastics; epiclastics overlain by hornblende-feldspar porphyry breccias and tuffs; and wackes, argillites and conglomerates enclosing a continuous limestone interval 20 to 150 metres thick. On the Golden Eagle property volcanic rocks in the upper portion of the Stuhini section are intensely carbonatized and the section is capped by limestone. Lithogeochemical work by Noranda on the volcanic rocks indicates the Stuhini volcanic rocks have a calc-alkaline affinity with compositions ranging from basalt through andesite to rhyolite (Mackay and Reid, 1987). These rocks are moderately folded and faulted and intruded by a myriad of granitic dykes and intrusive rocks of Mesozoic through Late Cretaceous and Tertiary age. Lower Jurassic Laberge Group (Inklin Formation) clastic sedimentary rocks (siltstones, arenaceous wackes, argillites and conglomerates) unconformably overlie the Stuhini rocks (Mihalynuk and Rouse, 1988a).

The Laberge Group sedimentary strata are overlain by Lower to Middle Jurassic volcanic rocks consisting of intermediate to felsic pyroclastic rocks and intermediate to mafic flows. Lithologies include (Mihalynuk and Rouse, 1988a): grey-brown bladed feldspar porphyry flows with interflow lapilli tuffs maroon to green felsic lapilli ash flows massive green lapilli tuffs rhyolite ash flows variably coloured feldspar phyric flows and coarse pyroclastics conglomerates bladed-feldspar ash flow and polymictic felsic lapilli tuffs.

As stated above, intrusive rocks of Cretaceous and earliest Tertiary age intrude the older layered rocks, with granitic rocks of the Coast Batholithic Complex predominating in the western part of the area.

The dominant structural trend in the area is 340°, this being the trend of the Llwellyn Fault Zone, the Whitehorse Trough and most major folds. Fold structures west of the Llwellyn Fault tend to be isoclinal to open and upright; while east of the fault, horizontal to inclined-plunging folds are characteristic (Mihalynuk and Rouse, 1988a). The dominant fault in the area, the Llwellyn Fault, is believed (Mihalynuk and Rouse, 1988a) to represent a long-lived zone of structural weakness "along which felsic bodies intruded and were later deformed". It was probably active by early Mesozoic times and as the western margin of the Whitehorse Trough was extensional at that time.

7 Mineralization

There are three areas of interest on the Property:

The <u>Camp Zone</u> is located on the Golden Eagle 2 claim. It is hosted by island arc volcanic strata of the "Boundary Range Metamorphic Suite" intruded by a Cretaceous granodiorite sill. Soil sampling has defined an exceptionally strong and coherent anomaly for 800 metres and over a width of up to 400 metres. Gold-in-soil values within the zone range up to 18,000 ppb Au within a wide zone of >200 ppb Au. Noranda drilled two holes (88-1 and 88-2) at the extreme southeast end of the anomaly - the holes are located downslope from the main soil anomaly and only one of them (88-1) is overlain by a relatively weakly anomalous portion of it. Both holes intersected "subvolcanic" granodioritic intrusive rock and variably sheared and altered green volcanic rock. Gold values ranged up to 690 ppb Au over 1.5 metres within a wide anomalous intersection of 146 ppb Au across 64.5 metres. Noranda (Duke, 1989) obtained a value of 3460 ppb Au across 3 metres from a rock chip sample taken from the northwest end of the soil anomaly, 460 metres northwest of drill hole 88-1. The geochemical anomaly is open at the northwest end, and although Duke (1989) states that "the anomaly appears to continue to the northwest for 2 kilometres to the Jessie showing", no work was undertaken to document this.

The <u>Carbonate Zone</u> (MINFILE 104M 057) is located on the Connor 1 claim 3 800 metres northeast of the Camp Zone. It is a 5 km. long zone of orange-weathering, pervasively carbonatized Upper Triassic Stuhini volcanic rocks containing disseminated chalcopyrite, pyrite, arsenopyrite, galena, sphalerite. The zone is cut by veins of quartz, carbonate and barite and is capped by a limestone unit to the northeast. The carbonate alteration zone is semi-concordant but locally crosscutting and ranges from 300 to 500 metres in width. A bedrock sample taken by Noranda (Mackay and Reid, 1987) over a width of 3 metres returned values of more than 4% Cu (>40,000 ppm Cu), 16.6 ppm Ag and 6.4 g/t Au (6,400 ppb Au). Soil samples on the grid range up to 2000 ppb Au, 1500 ppm Cu and 18 ppm Ag (see below under Geochemistry).

The Jessie Showing (MINFILE 104M 027) is located on the Golden Eagle 3 claim, 2 km. northwest of and along strike from the Camp Zone. It is hosted by the same package of rocks, the "Boundary Range Metamorphic Suite". Mihalynuk (1999) of the B.C. Geological Survey Branch describes the showing as a shear-bounded, "massive sulphide" lens and has mapped cherty chemical strata extending for 2 kilometres northwest from the main showing (Mihalynuk, 2001, personal communication). Noranda obtained highly anomalous arsenic and silver soil geochemical results in a reconnaissance line in the same area. Channel sampling on the showing by Noranda yielded 4 metres grading 4.13 g/t Au associated with heavy sulphide mineralization (mainly pyrite, sphalerite, galena, chalcopyrite and arsenopyrite). A grab sample from the dump assayed 91.5 g/t Au, 293.8 g/t Ag, 6.0 % Pb, 8.7 % Zn, 1570 ppm Cu and 1.000 ppm As. Across the valley, six hundred metres to the east, float samples of altered siliceous volcanic rock with pyrite and minor galena and sphalerite returned assays of up to 44,000 ppb Au below Gossan #1. At Gossan #2, eight hundred metres southeast of, and along strike from, the Jessie showing, chip sampling of a gossan by Noranda returned values of 1,400 ppb Au across 8.0 metres from gossanous sheared mafic volcanic rock carrying disseminated pyrite and pyrrhotite.

8 Geochemistry

Silt, soil and lithogeochemical surveys have been completed by several exploration companies and by the B.C. Geological Survey Branch over the past 30 years and have encountered highly anomalous results in the area covered by the current Golden Eagle property.

Mihalynuk and Rouse (1988b) of the B.C. Geological Survey Branch obtained anomalous gold (1080 ppb) and zinc (254 ppm) in their sampling of silts from streams draining the property. Similarly Jackaman and Matysek (1993), also of the B.C. Geological Survey Branch, obtained highly anomalous results (> the 95th percentile) for gold (191ppb), antimony (16.0 ppm), arsenic (200 ppm), copper (187 ppm), lead (46 ppm), silver (0.7 ppm) and zinc (301 ppm). In 1986, Noranda (Mackay and Reid, 1987) also obtained highly anomalous gold-in-silt results (280 and 380 ppb) from streams draining the claims.

Noranda, as part of the 1986 program, also undertook detailed and reconnaissance soil sampling surveys (Mackay and Reid, 1987). Strongly anomalous results were obtained in two areas:

(a) at the <u>Camp Zone</u>, on lines spaced at 400 metres and sample stations at 50 metres values of up to 1700 ppb Au and 1000 ppm Zn at the south end of line 16,400E. Follow-up work by Noranda in 1987 (Duke, 1987) on the Camp Zone featured soil sampling on lines spaced at 100 metres, with sample intervals at 25 metres. Utilizing 200 ppb Au as a threshold value, an exceptional anomaly up to 400 metres wide was outlined over a length of 700 metres. The anomaly has a peak value was 18,000 ppb Au and remains open at its northwest end. (b) at the <u>Carbonate Zone</u> values of up to 2000 ppb Au were obtained (Mackay and Reid, 1987) but tended to be erratic in nature. However at the west end, over a strike length of 600 metres between lines 17,000 and 17,600, a coherent Cu-Au anomaly features values of up to 1500 ppm Cu, 18 ppm Ag and 1500 ppb Au on lines spaced at 10 and 25 metres. The 3 metre chip sample which returned the assay of >4% Cu and 6.4 g/t Au is from this area.

9 Geophysics

9.1 Airborne Geophysics

A helicopter-borne airborne electromagnetic-magnetic-VLF EM survey was completed by Noranda in 1987 (Duke, 1988), utilizing AERODAT Ltd. as contractor. The survey used and Aerospatiale A-Star 350D helicopter (C-GNSM), which called for a mean terrain clearance of 60 metres, but actually achieved a mean of 87 metres, with a standard deviation of 34 metres (Walcott, 2000). The electromagnetic system was the AERODAT four frequency system, which utilizes two vertical coaxial coil pairs operating at 946 Hz and 4600 Hz and two horizontal coplanar coil pairs at 4175 Hz and 32.0 kHz. The transmitter-receiver separation was 7 metres. Inphase and quadrature signals were measured simultaneously for the four frequencies with a time constant of 0.1 seconds. The electronic bird was towed 30 metres below the transmitter. The VLF-EM system was a Herz Totem 2A utilizing NLK, Jim Creek, Washington and NSS, Annapolis, Maryland broadcasting at 24.8 and 21.4 kHz respectively. The magnetometer utilized was a Scintrex Model VIW-2321 H8 cesium model with a sensitivity of 0.1 nanoteslas at a 0.2 second sampling rate. The VLF-EM and magnetometer sensors were towed in a bird 12 metres below the helicopter. The survey utilized a magnetic base station, radar altimeter, a tracking camera and a RMS dot-matrix recorder to display the data during the survey and a DRG33 digital data recording system to record the survey on magnetic tape. A report was prepared by Podolsky (1987) and reviewed by Walcott (2000).

Unfortunately the survey did not utilize a global positioning system (GPS) for location, and as a consequence the locations are difficult to position relative to the ground work - in addition, the highly variable ground clearance has generated large differences in response between adjacent lines depending upon whether the helicopter was ascending or descending. Despite this, much useful information is evident. A distinctive magnetic depression characterizes the hostrock to the highly anomalous gold-in-soil geochemistry of the Camp Zone - this unit is a highly altered mafic tuff unit cut by narrow sill-like felsic intrusive bodies. This magnetic depression also coincides with the mapped location of the Llwellyn Fault Zone. Northeast of the magnetic depression, between the Camp Zone and the Carbonate Zone, a series of strong conductors (Podolsky, 1987 anomaly III) ranging between 0.2 and 1.8 siemens, outlines a black shale unit within the Upper Triassic Stuhini Group. The black shale unit contains graphite and disseminated pyrrhotite. Northeast of the black shale unit, a prominent magnetic ridge is evident over relatively unaltered Stuhini Group mafic tuffs, breccias and volcaniclastic rocks. Northeast of this feature, another prominent magnetic depression is evident over the Carbonate Zone - presumably reflecting its intense hydrothermal alteration. A moderate conductor (Podolsky, 1987 anomaly VII) of 0.7 siemens is associated with this feature and could reflect a sulpide-rich zone within the Carbonate Zone.

9.2 Ground Induced Polarization (IP) Survey

Ground geophysical work is limited to four lines of induced polarization surveying By Noranda in 1987 (Duke, 1988). Two of the lines traversed an area near the southeast edge of the Camp Zone and the two other lines traversed the Carbonate Zone.

a) Camp Zone area. Two lines, 16600 and 16750, spaced at 150 metres were located near the southeast portion of the Camp Zone gold-in-soil geochemical anomaly - one line was located within but at the southeastern limit of the geochemical anomaly and the second approximately 75 metres southeast of the zone. On the north portion of both lines, an extensive high chargeability background is recorded within which there are zones of increased chargeability coincident with low resistivity zones - these features reflect the black shale unit and its contained graphite and sulphide minerals. Both lines also recorded an increase in chargeability over the area near the gold-in-soil anomaly, the strongest being over the northwestern line, where the chargeability was four times background. There was little change in resistivity. Drilling subsequently identified the cause of the anomaly as due to an increased sulphide content and alteration associated with weak gold mineralization in the altered volcanic and intrusive rocks.

b) Carbonate Zone Area. Two lines, 17800E and 18100E, spaced 300 metres apart were located in the central and eastern portion of the Carbonate Zone. Both lines encountered a resistivity high about 125 metres south of the baseline at 798+50N, east and along strike from the carbonate zone geochemical anomaly. At about 795+00N, both lines also encountered a narrow (approximately 50 m) strong chargeability anomaly of about 4 times background with a corresponding coincident pronounced resistivity decrease south of the area tested by soil geochemical sampling. The anomaly is close to a weak anomaly detected in the airborne survey, which Walcott (2000) estimated to have a conductance of 0.2 mhos. This anomaly displays characteristics, which might be expected for a narrow high-grade sulphide deposit such as a volcanogenic massive sulphide (VMS) or polymetallic replacement deposit - alternatively the response could be caused by a formational graphitic conductor.





10 Present Work

On 10 September 2001, the author and Dr. Kieran Downes of Marksmen Resources Limited visited the property and took three soil samples from the area of the Camp Zone gold-in-soil anomaly. The samples were approximately 400 grams in size and essentially composed of tan-coloured "C-horizon" mechanically decomposed rock material. The samples were collected in brown kraft bags and analyzed by the inductively coupled plasma - mass spectrometry (ICP-MS) technique by Acme Analytical Laboratories Ltd. in Vancouver. The results are presented in Table 2 and shown on Figure 4. The certificates of analyes are presented in appendix 3.

Table 2	· ICP-MS an	alyses of S	oil Sam	ples - Ca	mp Zon	e (2001/0	9/10)	
Sample	GPS	GPS	Au	Cu	Zn	Ag	Pb	As
No.	Northing	Easting	(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
S-01	6630462	0515605	5140	40	261	2.7	344	173
S-02	6630481	0515633	3093	23	193	1.3	151	126
S-03	6630501	0515669	327	14	81	0.5	37	82

The Jessie Showing was also visited and four 1.0 metre chip samples taken from the Jessie Showing trench from northeast to southwest. The showing is exposed in a bedrock trench approximately 3.5 metres in length and 2.5 metres deep located at 6631928N, 0514554E. The showing consists of a lens of disseminated to semi-massive sulphides in the matrix of an angular breccia with felsic clasts up to approximately 3 cm. in size. The rock is locally weakly magnetic, possibly from pyrrhotite. Sulphide minerals constitute approximately 25% of the rock and in order of abundance are: pyrite, galena and sphalerite. The chip samples, as well as a grab sample of high-grade material, were submitted to the Acme Analytical lab for analyses by the inductively coupled plasma mass spectrometry (ICP-MS) technique. The analytical results are presented in Table 3 and shown on Figure 5.

Table 3 -	ICP-MS analy	ses of Ro	ck Chip S	amples - J	essie Show	ving (2001	/09/10)
Sample		Au	Cu	Zn	Ag	Pb	As
Number	Sample Type	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
G-06	1.0 m chip	4	359	3082	8.5	1831	80
G-07	1.0 m chip	16	977	9838	95.1	8386	89
G-08	1.0 m chip	5	679	6594	50.4	5455	59
G-09	1.0 m chip	5	602	5339	24.6	4836	67
G-10	grab	11	1433	14020	102.1	12132	188

The soil and rock chip samples were subsequently assayed by the lead-collection fire assay technique, utilizing a full assay ton sample (29.2 g) and inductively coupled plasma - emission spectrometry (ICP-ES). The results are presented in Table 4.

Table 4 - ICP-ES check ana	lyses of Soil and Rock Chip S	amples (2001/09/10)
Sample Number	Au (grams/tonne)	Ag (grams/tonne)
S-01	7.43	2.7
S-02	1.88	1.5
S-03	0.40	<0.3
G-06	5.49	8.1
G-07	15.44	92.0
G-08	7.02	47.2
G-09	9.45	24.4

The four chip samples taken from the Jessie Showing returned an average value of 9.35 g/t Au, 42.9 g/t Ag, 654 ppm Cu, 6213 ppm Zn and 5127 ppm Pb over the four-metre width.

11 Discussion

There are several features, which indicate the potential for a multi-million ounce lode gold or volcanogenic massive sulphide (VMS) deposit within the Golden Eagle property. A fundamental crustal feature, the Llewellyn Fault, transgresses the length of the property in a southeastern direction - it continues southeastward to the Polaris Taku (1.6 million ounces @ 14.0 g/t Au (Schroeter and Lane, 1991; Canarc Resources Corp., 1997)) and Tulsequah Chief Mines (6.2 million tonnes @ 1.6 % Cu, 7.03 % Zn, 1.3 % Pb, 100.5 g/t Ag and 2.74 g/t Au (Hoy, 1991)) where the fault is believed to be a fundamental orecontrol of the important lode-gold and volcanogenic massive sulphide (VMS-style) mineralization. Three distinct stratigraphic units are potential targets for volcanogenic massive sulphide (VMS) mineralization. These include the Paleozoic Boundary Range Metamorphic strata, the Upper Triassic Stuhini Group and the Middle Jurassic volcanic section. Regional silt and soil geochemical anomalies are among the strongest known to exist in the province and are as yet unexplained. Extensive areas of hydrothermal alteration (carbonatization, chloritization, alumina-enrichment and soda-depletion) have been mapped by Noranda (Mackay and Reid, 1987). Gold and base metal-rich float and showings have been found and not yet been followed-up by drilling.

Further, the lithologies underlying the property have potential for giant gold-rich deposits of both VMS-style and lode gold mineralization. Potential exists for Eskay Creek-type gold-rich VMS mineralization in the Jurassic volcanic rocks on the north side of the property which Mihalynuk (2001) believes may be correlative with the Jurassic Hazelton Group strata which host the Eskay Creek deposit (1991 resource estimated at 3.6 million ounces in 4.9 million tonnes of ore grading 22.9 g/t Au and 833 g/t Ag (Hoy, T., 1991)). Similarly, the correlation of the Nisling Assemblage (Boundary Range Metamorphic Suite intruded by Cretaceous granitic rocks) with Yukon-Tanana Terrane (Mihalynuk, 1999) indicates potential for Pogo-type gold mineralization (5.5 million ounces @ 17.8 g/t Au Teck, 2001)).

The Noranda drill program was rushed and the preparatory work inadequate - as a consequence the program did not test the features it should have. The author believes that the Camp and Carbonate Zones are the most advanced targets and will be drill-ready with a small program of induced polarization surveying. Specifically:

a) At the <u>Camp Zone</u>, Noranda drilled two holes approximately 200 metres apart at the extreme southeast end of the gold-in-soil anomaly. The holes are located down-slope from the main part of the anomaly. Hole 88-1 tested a relatively weakly anomalous portion of it, and hole 88-2 was located off the southeast end of the anomaly. Given the steep topography at the Camp Zone, it is likely that there has been considerable down-slope migration of the gold-in-soil anomaly from source and that the anomaly was not tested by the Noranda holes.

b) At the <u>Carbonate Zone</u>, Noranda did not complete the follow-up work necessary to define a drill target before their program aborted. The west end of the Carbonate Zone between lines 17,000 and 17,600 is particularly encouraging where there is coincidence of the copper and gold-in-soil anomaly, the area of the highly anomalous float and bedrock samples and the 0.7 siemens AERODAT electromagnetic anomaly.

c) <u>Other areas of the property</u> that warrant follow-up prospecting and geochemical sampling include:

i) <u>Gossan #1</u> - although the Noranda rock chip sampling was not encouraging, the source of the 44,000 ppb float sample appears to have originated in this area and additional prospecting, soil sampling and rock chip sampling are required.

ii) <u>Gossan #2</u> - prospecting and geocemical sampling (soil and rock chip) should be undertaken in the vicinity of the highly anomalous rock chip which returned 1.4 g/t Au over a width of 8.0 metres.

iii) <u>Camp Zone South</u> - the chargeability anomaly on lines 17800 and 18100 needs to be prospected and sampled to see if it warrants drilling.

iv) the area between Gossan #2 and the Camp Zone - the Noranda maps show skarn mineralization, magnetite, limonite and chloritic alteration in this 800 metre long area. Prospecting and soil sampling should be completed.

v) the ridge northwest from the Jessie showing is underlain by Boundary Range Metamorphic Rocks in contact with Jurassic volcanic rocks along the Llwellyn Fault (Mihalynuk and Rose, 1988a). Cherty interflow rocks have been mapped by Mihalynuk and Rose (1988a) as well as a 1080 ppb Au gold-in-stream sediment sample. In addition, AERODAT mapped a series of electromagnetic conductors (Conductor VI, Podolsky, 1987) in the Jurassic volcanic rocks. The stream sediment anomaly should be followed-up with additional sampling as well as prospecting and soil sampling.

13

12 Recommendations

Ongoing work on the property is clearly warranted, with two areas (The Carbonate and Camp Zones) close to the drill stage with minor more detailed work and several other areas requiring more prospecting, geological mapping and geochemical and geophysical surveying prior to drilling. In the order of priority, a recommended program for each area of the property follows:

a) Camp Zone

	induced polarization (IP) surveys (5 lines spaced at 80	
	metres, each approx. 800 metres long) - total 4 km.	\$ 8,000
	1 diamond drill hole (200 metres @ \$150)	30,000
	helicopter (20 hours @ \$1000)	20,000
	Subtotal	\$58,000
b)	Carbonate Zone	
	induced polarization (IP) surveys (5 lines spaced at 160	
	metres, each approx. 800 metres long) - total 4 km.	\$ 8,000
	1 diamond drill hole (200 metres @ \$150)	30,000
	helicopter (20 hours @ \$1000)	<u>20,000</u>
	Subtotal	\$58,000
c) .	Jessie Showing, Gossans #1&2, Carbonate Zone IP anomaly	
	and ridge northwest of Jessie Showing	
	20 man days @ \$350	\$ 7,000
	helicopter 10 hours @ \$1000	10,000
	assaying (500 samples @ \$20)	<u>10,000</u>
	Subtotal	\$27,000

Grand Total

\$143,000

Respectfully submitted ESSIO osciel **R.H.** McMillan

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Appendix I Certificate

I, RONALD HUGH McMILLAN, of 6606 Mark Lane, Victoria, British Columbia (V9E 2A1), do hereby certify that:

- 1. I am a Consulting Geologist, registered with the Association of Professional Engineers and Geoscientists of British Columbia since 1992, and with the Association of Professional Engineers of Ontario since 1981.
- 2. I am a graduate of the University of British Columbia with B.Sc. (Hons. Geology, 1962), and the University of Western Ontario with M.Sc. and Ph.D. (1969 and 1972) in Mineral Deposits Geology.
- 3. I have practised my profession throughout Canada, as well as in other areas of the world continuously since 1962.
- 4. The foregoing report on the Golden Eagle Property is based on a review of the reports listed in the bibliography and on a visit to the Property and surrounding area on September 10 in the company of Dr. Kieran Downes, the president of Marksmen Resources Ltd.
- 5. I own the Golden Eagle 1 and 2 claims and the Connor 1 claim, all three of which are under option to Marksmen Resources Ltd..

Mi m H-MCMILLA BRITISH COLUMB

R. H. McMillan Ph.D., P.Eng., P.Geo.

Victoria, B. C. 15 December 2001

Appendix II

Expenses - Golden Eagle Project

	Cost	GST	Total
Airline ticket RHM	\$ 411.50	25.06	436.56
Airline ticket KD	411.50	25.06	436.56
Airport fee	5.00		5.00
Airport fee	5.00		5.00
ferry (2001/09/07)	43.00		43.00
1 meal	42.04	2.94	44.98
hotel	325.00	22.75	347.75
taxi	18.70	1,30	20.00
gas	24,74	1,73	26.47
hotel and food Whitehorse	722.22	50.54	772.76
car rental and gas	350.26	24.50	374.76
ferry (2001/09/14)	39.25		39.25
helicopter charter	3498.84	244.92	3743.76
analytical costs (Acme Analytical Labs. Ltd.)	84.38	5.91	90.29
consulting fees RHM 2001/09/07 to 14 (3days @\$550)	1650.00		1650.00
consulting fees KD 2001/09/07 to 14 (3days @\$550)	1650.00		1650.00
report writing RHM (5 days @\$550)	2750.00		2750.00
Total	12031.43	404.71	\$12436.14

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Appendix III ICP Certificate of Analysis File # A104132 and File # A104131 (Acme Analytical Laboratories Ltd.) - 4 pages

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GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES. UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM. - SAMPLE TYPE: SOIL SS80 60C AU* BY ACID LEACHED, ANALYZE BY ICP-MS. (10 gm) <u>Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.</u>

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

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GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HN03-H20 AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES. UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM. ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES 1F CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB - SAMPLE TYPE: ROCK R150 60C <u>Samples beginning 'RE' are Reruns and 'RRE' are Reject Beruns.</u>

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

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PHONE(604)253-3158 FAX(604)2"

ASSAY CERTIFICATE

Marksmen Resources PROJECT LIARD File # A104132R 282 Castle Way, Nanaimo BC V9T 1L4 Submitted by: R.H. McKillan

SAMPLE#	Ag** Au** gm/mt gm/mt	
 G-06 G-07 G-08 G-09 STANDARD R-1/AU-1	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	

GROUP 6 - PRECIOUS METALS BY FIRE ASSAY FROM 1 A.T. SAMPLE, ANALYSIS BY ICP-ES.

SAMPLE TYPE: ROCK PULP

DATE RECEIVED: DEC 12 2001 DATE REPORT MAILED:

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Data