

Geological Survey Branch Assessment Report Indexing System



[ARIS11A]

ARIS Summary Report

Regional Geologist, Cranbrook				Date Approve	ed:	2005.02	.02.24 Off Confidential		ential:	2005.10.20	
ASSESSMENT RE	PORT: 27526	i		Mining Divisi	on(s):	Nel	son				
Property Name: Location:	Gus NAD 27 NAD 83	Latitude: Latitude:	49 02 54 49 02 54	Longitude: Longitude:	117 14 117 14	4 33 4 37	UTM: UTM:	11 11	5432638 5432857	482280 482199	
Camp : 003	NTS: BCGS: Salmo - She	082F03E 082F004 ep Creek Ar	ea								
Claim(s):	Gus 1-14										
Operator(s): Author(s):	Kaufman, N Kaufman, N	И.А. И.А.									
Report Year:	2004										
No. of Pages:	32 Pages										
Commodities Searched For:	Gold, Silve	r									
General Work Categories:	GEOP, GE	OL, PHYS									
Work Done:	Geological GEOL Geophysica	Geological al	(300.0 ha	;) No. of maps	: 1 ; Sc	ale(s) : 1	1:5000				
	EMGR Physical LINE	Electromag Line/grid	netic, ground (4.0 km;)	(4.0 km;)	No.	of maps	: 2 ; Scal	e(s) : 1:	5000		
Keywords:	Cambro-Or	dovician, La	ib Formation, N	Nelway Formatio	on, Activ	e Forma	ation, Lime	estones	, Phyllites, A	Argillites	
Statement Nos.:	3218733										
MINFILE Nos.:	082FSW01	9, 082FSW0)62, 082FSW2	57							
Related Reports:	09165, 106 25704, 260	92, 10842, 1 48, 26674, 2	1452, 15799, ⁻ 26981, 27249	18357, 18363, 1	8364, 2	2395, 22	2921, 234	38, 237	11, 24199, 2	24748, 250	090,



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Preliminary Report On A Reconnaissance Horizontal Loup Electromagnetic Survey On The Gus Claims, Nelson Mining Division, B. C. By Louis O' Connor, Consulting Geophysicist, Sept. 2004

16 pages including report, map and sections

In Pockets:

See.

Statement of Costs

Major Invoices/receipts

- 1: 20,000 Access and Claim Location Map
- 1: 5,000 scale Gus Claim Group 2001-2004 Compilation Map showing HLEM lines
- 1: 5000 scale map of Saddle Area showing HLEM lines and anomalies
- 1: 1,000 scale updated 2004 Progress map of East Gold Anomaly Area showing HLEM lines and anomalies
- 1: 5,000 scale Gus Claim Group Geological Map

Production Statistics, Gus Property Mines; one page

Introduction

The Gus Claim Group (Gus 1 - 16) is located in the West Kootenays, approximately 7.5 km NE of the Canada - U.S.A. Nelway border crossing. The west margin of the claims is along the east shore of Rosebud Lake.

Access is by the Rosebud Lake Road and thence by a 4x4 logging road starting east of the NE part of Rosebud Lake and going ENE to the old Lone Silver Mine and beyond to an area which I call the East Gold Anomaly. Mr. Frank Zmavac, owner of surface along the north shore of the lake, has placed a locked gate barring access to the old mine/logging road. Without a gate key the claims must be accessed by the rough B. C. Hydro line trail to the south of the lake.

I have been actively exploring this area since the late 1980s, when I recommended acquisition to Lacana (Corona). After Corona relinquished its claims, I reacquired the ground by staking. The exploration history of the area has been well covered in past assessment reports, and will only be briefly summarized here. Lacana (Corona) carried out extensive soils and rock geochemical surveys. This work discovered two main anomalous areas which I have designated as the East Gold Anomaly and the West Geochemical Anomaly mainly anomalous in lead and silver. In 1992 Orvana Minerals Corp. optioned the claims from Corona, and drilled one hole to test one locality on the East Gold Anomaly. The hole did not intersect economic grade, but there were a number of gold intercepts, some highly anomalous, found in altered limey argillite of the Nelway Formation. My work since 1994 has involved following up and extending the previous exploration by geochemical and geophysical exploration, along with deep soils coring and excavator trenching.

The 2004 work consisted of a horizontal loop electromagnetic (HLEM) survey over selected targets carried out by geophysical contractor, Louis O'Connor using an Apex parametrics Maxmin II system. This technique is thought to be more reliable and give better penetration than the VLF work which was previously carried out over the East Gold Anomaly target area. The 2004 survey was concentrated in what I call the Saddle area in the central part of the claim group and in the East Gold Anomaly area.

Previous assessment reports covering the Gus Claims are as follows; # 27249, 26981, 26674, 26408, 25704, 25090, 24748, 24199, 23711 and 23438.

Summary Geology

As the geology has been described in previous assessment reports, I will only provide a summary here.

Physiographically, much of the Gus Claim Group is traversed by a broad ENE trending shallow valley which appears to follow the trend of the thrust faults which have been mapped in this area. A narrow NNE trending swampy depression occupies a portion of the East Gold Anomaly, within which parallel? EM conductors were found by Lloyd Geophysics in 1996. This low area is thought to be controlled by a "transverse fault". Both of these valleys probably contain relatively deep glacial overburden (say 10 metres or more). In the central part of the claim block, centred on Gus 9, there is an extensive overburden covered topographic saddle designated as "Saddle Area", situated between two ENE trending ridges. GSC Map 1145A suggests that the Styx Creek transverse fault passes through this saddle. Small areas of shallow overburden cover and bedrock are

found in upland areas south of the main valley, east, west and north of the swampy depression, and east and west of the saddle area.

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The area is chiefly underlain by Lower Cambrian Laib Formation phyllites, Middle Cambrian Nelway Formation silty limestones, and Middle Ordovician Active Formation argillites, limestones and slates. The property is traversed by the NE trending SE dipping Black Bluff Thrust Fault, which has caused the section to be overturned. A package consisting of older Laib sediments underlain by younger Nelway sediments overlies still younger Active Formation sediments. The contact between the Nelway limey sediments and the underlying Active Formation argillite-phyllite probably marks the trace of the thrust, but the thrust zone appears to be imbricate and complex. The local structure is thought to be further complicated by overturned folding related to the thrusting.

Minor production of very high grade gold-silver ores has been taken from three old mines situated on the property, the Lone Silver, Davne and Lucky Strike. The Lone Silver production was from irregular shoots of brecciated Nelway Formation dolomitized limestone and from underlying silicified Active Formation argillite and phyllite. The mineralized zones occur right on the Black Bluff Thrust, and are probably controlled by it. Both the Davne and Lucky Strike Mines are on WNW striking, steep dipping narrow fissure veins cutting "upper plate" formations, respectively Nelway silty lime and Laib phyllite. Though the two mines are .5 km apart, they appear to be controlled by the same general structure. Adjacent to the mine structures, there appear to be other parallel anomalous fracture zones. Between the two mines is the NE trending swampy depression described above. Outcrops within the East Gold Anomaly show intersecting, steep NNE bedding fractures and WNW cross fracturing. Small mineralized showings and anomalous metal values have been found along the WNW fracture zones. The West Geochemical Anomaly shows anomalous Pb, Ag and Zn with some sporadic Au. It was found on a steep hillside WSW of the Lone Silver Mine, in an area of shallow soils covering "upper plate" Nelway limestone in places marbleized. Its probable cause are mineralized fractures probably closely following bedding. Note; the geochemical anomalies are located on the enclosed 1:5000 scale map.

Exploration to date has been predicated on the following conceptions.

Because of similarities of the geology in this area to the Carlin - type geological environment, particularly the widespread decalcification seen in the East Gold Anomaly area, the early work here by Corona and Orvana emphasized a bulk tonnage deposit containing "noseeum" gold. As neither the Corona geochemical work nor the Orvana drill hole indicated such a deposit, both companies abandoned the project. When the early work was carried out, the nature and thickness of the extensive overburden cover in this area was not known. Subsequent soils drilling and excavator digging indicates that the cover is deep glacial clay, rendering much of the Corona geochemical soils work invalid. Although no evidence of micron sized gold is evident, there is certainly the possibility of bulk tonnage type mineralization as well as high grade related to structural intersections.

As the Black Bluff thrust appears to be imbricate, it is possible that surface showings on or above it might indicate more significant mineralization associated with subjacent fracture zones. Moreover, as much of the main thrust trend is covered by deep overburden, there is potential for undiscovered mineralization along the main thrust.

Significant high grade vein-type mineralization might be found at depth along WNW fracture zones, particularly along the zone hosting both the Davne and Lucky Strike mines. More extensive replacement-type mineralization might be expected where these WNW fracture zones intersect postulated NE trending "transverse" faults, particularly in the swamp

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area where conductors were detected. The whole Swamp-East Gold Anomaly area occurs in upper plate sediments, so there is a possibility of replacement-type mineralization at depth along the underlying Black Bluff thrust or along related imbricate fracture/fault zones.

Sultan Minerals, in its work in the Wilson Creek area situated ENE of the Gus Claims, has found widespread highly anomalous zinc along with lesser silver and lead in soils overlying Active Formation argillites. They detected a gravity anomaly coincident with the geochem. anomaly, but have never drill tested the area. The same stratigraphy should underlie the extensive, overburden covered ENE trending flat valley occupied by the northern portion of the Gus Claim Group. Soils zinc anomalies have also been detected over Active Formation sediments west of Rosebud Lake on the SW trend of the valley. It is not known whether these anomalous areas are caused by formational or structurally controlled mineralization, but it does point to possible covered targets along the trend of the Active Formation.

Discussion Of The 2004 Program

The electromagnetic survey is discussed in technical detail in Louis O' Connor's. accompanying geophysical report, which includes sections and maps. The scope of the survey was limited, being focused on specific geologically favourable target areas. Several possibly significant conductors were detected, and additional EM work would be required to more thoroughly delineate them, but there is sufficient coverage to provide drill targets in the selected areas. Below, I will briefly provide a geological interpretation of the EM results.

Saddle Area

The "Saddle Area" was selected for coverage because of a possibly favourable geological setting; in this overburden covered area the Black Bluff Thrust fault is thought to be intersected by the northerly trending, steep dipping Styx Creek transverse fault. Also, sporadic, teasing geochem. results have been found here in surface soils and float, in one soil core hole, and from soil and float dug up from excavator pits. The 2003 excavator work, however, never hit bedrock, indicating that the glacial overburden here is more than six metres thick. Three lines were surveyed, one east-west across the saddle, and two northsouth lines spaced 100 metres apart crossing the E-W line. A broad NE trending zone of high conductivity was detected on both N-S lines with the strongest conductive zone found over width of up to 50 metres along the northern portion of the broad anomalous zone. The depth to the top of this conductor is estimated at greater than ten metres probably reflecting thickness of overburden cover. A broad conductive zone beginning at about 50 metres east on the E-W line probably coincides with the NE conductor found on the N-S lines. Another conductive zone found along the west end of the E-W line is located in an overburden covered area on or very close to the main trend of the Black Bluff thrust fault about 40 metres north of eastern most Lone Silver mine adit, which was driven southerly. In this area the thrust forms the contact between overlying but older Nelway Formation limey sediments to the south over younger Active Formation, predominantly carbonaceous sediments to the north. As mentioned previously, the productive ore shoots of the Lone Silver Mine occur along the thrust, and are probably controlled by it.

The anomaly found on the west end of line 0N, which is not well defined because the survey line probably runs sub parallel to the formational strike, is probably related to the thrust. The Active Formation carbonaceous sediments, which are likely highly sheared along the fault, and might be steeply dipping could in themselves be conductive. However, as "footwall" gold ore from the Lone Silver workings was comprised of pyritized, silicified

Active Formation argillite, it is very possible that there could be a sulfide component to the conductor.

The NE trending, wide conductive zone detected in the saddle area on lines 0E and 1E, approximately 300 metres east of the previously discussed anomaly is open to the NE and SW. Geologically, it would be convenient to explain such a wide, strongly conductive zone as an extension of the anomaly found on the west end of line 0N, as It appears to trend both with the general formational strike, and that of the Black Bluff thrust. But it is situated almost due east of the cited 0N anomaly, and appears to be 100 to 150 metres south of the projected trend of the thrust, a considerable offset considering that the distance between the two anomalies is only about 300 metres. So the cause of this strong conductive zone is not certain. Possibly, the thrust has been structurally complicated in this area either by folding and/or by fault displacement. Considering this scenario, the anomaly might be an east projection of the cited ON anomaly. If this is not the case, this conductive zone would occur in upper plate rocks of the Nelway or Laib formations, where extensive carbonaceous sections are not as common as in the Active formation. In this case, the conductor is more likely to be caused more by metallic sulfides. In either case, the location of this strong conductor at a probable major fault intersection in a deeply covered area just a few hundred metres E of the known high grade Au-Ag occurrence at the Lone Silver Mine provides a reasonable drill target.

East Gold Anomaly Area

Outcropping portions of The East Gold Anomaly area show a NE striking formational trend in thinly bedded Nelway silty limes, cut by frequent steep NW fractures. The NW fracture zones frequently contain anomalous gold, lead and silver values associated with carbonate and/or quartz fracture filling. HLEM surveying was carried out in this area to corroborate previous VLF EM results from work carried out during 1996, and to survey a new line along the axis of the swamp found here. Two lines were surveyed, one(line 2E) oriented NE-SW along the swamp, and the other (line 3S) oriented NW crossing 2E and roughly parallel to 1996 VLF line 1W.

A weak conductor found under the swamp at 10 to 20 metres depth on line 2E at 90 metres S can probably be attributed to a NW trending fracture zone. This anomaly appears to closely coincide with a VLF conductor detected on 1996 line 0, which was run perpendicular to line 2E. The VLF conductor coincided with a weak magnetic high, and was recommended for drill testing by the operator, Lloyd Geophysics. It is my guess that the VLF response is related to fracturing following formational bedding, while the HLEM conductor is caused by NW fracturing crossing the bedding. The unique (to this line) 888 Hz "noise" described by Lou O'Connor possibly might be geologically attributed to the frequent NW fracture zones which are known to occur in this area. Though it is weak, the conductor at 90S represents the strongest response along this line, and is of interest considering the widespread fracture-controlled anomalous gold found in this area.

The broad positive response encountered on line 3S is not likely related to overburden, as cover is relatively shallow here. This line roughly crosses formational strike, and is roughly parallel to the Davne Mine mineralized structure. O'Connor suggests two probable causes; possibly a flat source at depth, or possibly a conductor off the line but roughly parallel to it.

Although the anomalies in this area are quite weak compared to those detected in the Saddle Area, they do merit drill testing as they could represent mineralized zones.

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Conclusions and Interpretations (for further detail refer to Gus 2003 Asses. Rept. #27249)

The 2004 HLEM work though limited in scope, has proven very useful, as it has pinpointed a previously indefinite drill target in the Saddle Area, and has better defined drill targets in the East Gold Anomaly area. Below, drill target areas are discussed in light of this new information.

Discussion of Drill Target Areas

Saddle - Lone Silver Mine Area

The HLEM work here has presented a good drill target on the strong NE-SW trending, N dipping conductor found on the two N -S lines. Moreover the indicated depth to this conductor (> 10 metres) explains my frustration in attempting to reach bedrock in this area by soils coring and excavator pits, and casts doubt about all previous surface soils sampling here. If any drilling success should be achieved here, there is a very good chance of a larger target extending along strike of the open conductor to the NE, and to the SW toward the Lone Silver mine workings from which were produced small amounts of high grade ore averaging 116 oz/ton silver and .45 oz/ton gold..

East Gold Anomaly-Davne-Lucky Strike Mine Area

The strongest known showings this area are along the WNW striking fracture zone containing small, high grade Au/Ag ore shoots at the Davne and Lucky Strike mines. An irregular, bulbous shaped soils gold anomaly around the Lucky Strike mine is interesting. And the past recorded production of 61 tons averaging 1.29 opt Au and 34 opt Ag from near surface at Lucky Strike, along with 4 tons of 2.75 opt Au and 43 opt Ag at Davne certainly can be considered significant anomalies. No drilling has ever been reported around the mines or anywhere along the controlling structure.

The East Gold Anomaly appears to be chiefly caused by widespread, small Au/Ag/Pb showings associated with pyrite, galena and tetrahedrite occurring in quartz/carbonate filled fractures oriented roughly in the same WNW direction as the Davne-Lucky Strike structure. These intersect NE fracture zones parallel to bedding of the Nelway Fm. limey argillites, which also have the potential to be mineralized. Grab samples as high as +11 grams/tonne gold have been taken from this area.

The only hole known to have been drilled on the whole Gus property, a NW trending angle hole drilled by Orvana within this anomalous zone, with present knowledge, can be considered as a random test, as it was drilled off any known mineralized structure, in the same direction as the known mineralized bearing structures in the area. The fact that it cut five separate anomalous gold zones can be considered encouraging, as can the presence of two types of occurrence, fracture zones with tedrahedrite/pyrite, and pyritic zones probably following faults. Also encouraging is widespread rock alteration (decalcification and muscovite/sericite) seen at surface and in core, along with light green pyrite bearing dikes/sills reported in the core. In light of our HLEM work and outcrop geology, it can be seen that this hole was drilled about 20 metres SW of and parallel to the gold showing situated at the zero point of our line 2E, which shows as a "noisy" zone on the HLEM, and about 70 metres NE of the conductor found under the swamp at 90 metres S. The broad conductive zone found from 100 SE to 300SE on line 3S if it indicates a flat source might represent mineralization at depth spreading out along formational bedding away from the Davne Mine structure. If it is caused by an off line parallel source, it could represent much stronger mineralization at depth along the Davne and parallel structures than is evident at surface.

At this point three angle holes can be suggested; one, based on geology, from N to S to test the Lucky Strike Mine structure at depth, and two based on EM anomalies. One would be drilled to cut both bedding and the HLEM anomaly at line 2E, 90S, and the other to test the broad HLEM anomaly found on line 3S.

M. A. Kaufman M-G- Kaufman

Oct. 12, 2004



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Statement of Qualifications

I, M. A. Kaufman hereby state that I have worked as a mining geologist and mining engineer for 47 years.

I received an A, B, degree in geology from Dartmouth College in 1955, and an M. S. degree in geology and mining engineering from the University of Minnesota in 1957.

I am currently registered as a Professional Engineer/Geologist in the province of British Columbia.

From the period 1955 - 1965 I worked for the major companies Kennecott Copper Corp., Giant Yellowknife Gold Mines (Falconbridge), Kerr-McGee, and Hunting Survey Corp., Ltd. I then worked independently as a consultant and contractor, mainly for major companies. From 1969 through 1988, I was a principal of the consulting and contracting firm of Knox, Kaufman, Inc. From 1989 to present I have worked as an independent consultant and prospector.

M. A. Kaufman

APPENDIX

Preliminary Report On A Reconnaissance Horizontal Loop Electromagnetic Survey on the Gus Claims, Nelson Mining District, British Columbia

> Lou O'Connor, M. Sc. Consulting Geophysicist September, 2004

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Introduction.

Five lines of 125 meter coil spacing Horizontal Loop Electromagnetics (HLEM) were run on the Gus Claims during September 21-24, 2004. The line locations, labeled 0E, 1E, 0N, 2E and 3S are shown on Figure 1. Lines were run in a reconnaissance fashion on pre-cut lines with approximately located (topofilled), slope-chained, 25 meter stations. An Apex Parametrics Maxmin II+ system (serial number 2377) with a MMC data logger was used for the survey. The instrument, which used English units, was set for 400 feet (122 meters). Slopes measured and averaged in the field with the MMC computer were used to orient the transmitter and receiver. The survey was run using a tight reference cable of approximately 125 meters to limit transmitter to receiver coil separation errors. The extra 3 meters should produce a constant background shift of about -7% in the in phase measurements. This constant background shift does not effect the interpretation of local anomalies.

Data were downloaded on a daily basis and processed using the Apex Maxmin Utilities software. Three lines, 0N, 2E and 3S, still had apparent coil-spacing errors in the in phase measurements. For these lines, the 222 Hz in phase was subtracted from the higher frequency In-Phase responses. The topography calculated by the Maxmin Utilities was found to be shifted one half coil spacing (63 meters) in the direction of travel on the survey line. This shift was corrected before plotting the topographic profiles.

Summary and Recommendations.

Five lines of recon scale 125 meter HLEM were run on the Gus Claims using an Apex Maxmin II+ system. Two lines, 0E and 1E detected 10 to 20 Siemen conductors within a broad north dipping zone. Two other lines detected weaker negative anomalies associated with dipping conductive zones. The west end of Line 0N has an incompletely defined anomaly associated with the Black Bluff Thrust Fault and Line 2E has a very weak quadrature anomaly associated with a thin zone near the north end of the swamp. Positive anomalies typical of flat lying conductors are present on lines 0N and 3S. The source of these anomalies are not clear, they could as well be coming from dipping conductors located off the line.

The strong conductor on lines 0E and 1E should be explained. The source could be black, carbonaceous shales in a wide geologic unit or potentially massive sulphides. If drilled the zone should be tested with an angle hole from the North. The good conductor is located at the northern margin of a wide weakly conductive zone. Multiple drill holes may be required to fully test the wide zone.

Induced polarization may be another technique worth testing on this property. If gold mineralization is associated with silicification and sulphides, resistive and polarized targets could be mapped with an IP/resistivity survey.

Discussion.

The five recon lines were run in two different areas. Lines 0E, 1E and 0N are located north and east of the Lone Silver Mine, between that mine and the Davne Mine. Lines 2E and 3S were located to the east between the Davne Mine and the Lucky Strike Mine.

The strongest HLEM anomalies of the survey were found on lines 0E and 1E. The EM data and topographic profiles for these lines are shown in Figures 2-5. Both lines cross a wide, complex, north dipping conductive zone. On both lines the conductor is weaker on the southern margin and much stronger on the northern margin. The axis of the strong conductor has a NE trend, parallel to the mapped trend of the Black Bluff Thrust Fault at the west end of Line 0N near the Lone Silver Mine.

On Line 0E at 3555 Hz the quadrature response indicates a wide zone extending from -150 to 70. This wide zone is mostly likely a set of closely spaced thin conductors that cannot be separately resolved due to

the 125 meter coil spacing. The in-phase response at 3555 Hz, which indicates the more conductive portion of this wide zone, is much narrower, extending from -25 to 25. Interpretation of the more conductive zone at 3555 indicates an approximately 7 Siemen conductor at a depth of 14 meters that dips to the north at about 30 degrees with respect to the average topographic surface. At 222 Hz the conductor narrows to about 0 to 25N. The conductivity-thickness increases to about 20 Siemens and the depth to the top of the zone is about 25 meters.

On Line 1E the conductive zone is similar. The 3555 quadrature zone indicates a wide zone that extends from -20 to 70. Again the more conductive portion, as indicated by the in-phase is narrower and located on the northern margin of the wide zone extending from about 35 to 60. The response of the more conductive zone at 3555 indicates an 8 Siemen conductor with a top at about 12 meters and a northerly dip of 45 degrees with respect to the local topography. The 222 Hz data for the same line has a depth of about 25 meters, a conductance of 20 Siemens and a similar north dip.

Line 0N (Figures 6 and 7) was run perpendicular to Lines 0E and 1E at about 0. As a consequence this runs over the conductive zone detected on those lines in direction sub-parallel to its trend. This may help explain the complex anomaly patterns on the line. Apparent coil separation errors have been corrected by subtracting the 222 Hz in phase from the higher frequencies. On the west end of the line the edge of a weak conductor is evident. The anomaly extends to the west of -300 off the west end of the line. No interpretation can be made of the conductance, depth or dip. This anomaly apparently is associated with the Black Bluff Thrust Fault. The broad positive shoulder between -250 and -100 is probably due to the acute angle with which the profile crosses the conductor. A second positive anomaly is present between about 50 and 175. This anomaly is likely to be a positive shoulder generated by the broad conductor detected on lines 0E and 1E. On the east end of this line the quadrature curves have nearly identical readings for all frequencies. These readings were taken when the instrument was extremely wet and just before shutting down for the day. It is possible that the instrument was starting to malfunction at this point.

Lines 2E and 3S are centered on a swamp approximately 600 meters to the east of the previous lines. Both of these lines were also corrected by subtracting the 222 Hz in phase from the higher frequencies. Line 2E (Figures 8 and 9) is oriented NE parallel to the long axis of the swamp with the northern third of the line on outcrop and the southern 2/3 in the swamp. This line detects one very weak local anomaly in the higher frequency quadrature curves. The axis of this thin conductor is at about -90. The shape of the anomaly indicates a steep south dip of 70-80 degrees. The depth of this zone interprets to be 10-20 meters. A possible source could be a wet fracture or fault zone. The 888 Hz is particularly noisy on this line with a random +/-2 % riding on the otherwise flat in phase and quadrature curves. There was no apparent source for this noise and it was not seen on any other line.

Line 3S (Figures 10 and 11) was run approximately perpendicular to the line 2E crossing the swamp between stations 300 and 350 and climbing the extremely steep slope to the east up to the vicinity of the Lucky Strike Mine. Low level broad positive anomalies are seen on the line to the west of the swamp, extending from 300 to at least 100 with the response increasing to the west of 200. The broad background shifts are typical of flat lying bedrock conductors or overburden. A second possibility is a situation similar to line 0N, where the line could be running parallel to a conductor off the axis of the line. To the east of the swamp on the steep slope up to the Lucky Strike Mine the readings are relatively noisy and no clear features can be seen. On this stretch of the line measured slopes were as high as 50 percent.



















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RESUME

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QUALIFICATIONS

MS degree in Geological Sciences with concentration in Geophysics. Member Society of Exploration Geophysicists (SEG) since 1981. 25+ years of world wide experience in mining geophysics. Management of geophysical exploration programs with budgets in excess of \$500,000. 3 Cominco President's Awards for Exploration Discovery between 1995 and 2001.

EXPERIENCE

2001 to Present: Consulting Geophysicist working with Frontier Geosciences, Nova Gold, Franconia Minerals, URS, Teckcominco, Kennecott, Imperial Metals, Holitna Energy, Miramar and others. Projects involving mining, oil and gas, environmental and research geophysics.

1982 to 2001: Geophysicist, Cominco American Incorporated, Spokane, Washington.

Worked on mining exploration projects in Alaska, the continental United States, Mexico, Peru, Brazil, Chile and Spain. Planned, executed and interpreted airborne, ground and downhole geophysical surveys for zinc, copper and gold exploration and shallow engineering investigations. Extensive experience in potential fields, resistivity/IP, AMT, CS-AMT, frequency domain and time-domain EM. From 1999 to 2001 managed geophysical exploration programs around the Red Dog Mine in northwestern Alaska and the Pend Oreille Mine in northeastern Washington State. At Red Dog managed a two year, 15,000 station gravity survey that covered approximately 300 square miles. Used downhole source Resistivity/IP surveys to discover the Anarraq zinc deposit in the Red Dog district at a depth of greater than 650 meters. Also a member of the exploration teams that discovered the Pebble Copper copper-gold porphyry, the Aqqaluk zinc deposit in the Red Dog district and the Washington Rock zinc deposit at Pend Oreille. Received three Cominco President's Awards in recognition of work at Aqqaluk, Anarraaq and Washington Rock.

1980 to 1982: Temporary part-time geophysicist, Newmont Mining Company, Tucson, Arizona. Worked part-time while attending graduate school at the University of Arizona. Work included geophysical field work, data processing and computer programming.

1975 to 1979: Physical Science Technician, US Geological Survey, Denver, Colorado. Involved in field research in the geophysical exploration for uranium, lithium, geothermal and water resources.

RECENT PUBLICATIONS AND PRESENTATIONS

O'Connor, L.J., 2001, Geophysical Exploration in the Red Dog District, oral presentation at the 2001 Prospectors and Developers Association of Canada Meeting, Toronto, Canada.

O'Connor, L. J., 1998, Geophysical Response of the Red Dog Deposit, in Practical Geophysics III for the Exploration Geologist, Northwest Mining Association, Spokane, Washington.

O'Connor L.J., 1994, Electromagnetic Coupling of Grounded Wires On An Anisotropic, Polarizable, Layered Earth, Poster Presentation at John S. Sumner Memorial International Workshop on Induced Polarization (IP) in Mining and the Environment, Tucson, Arizona.

EDUCATION

BS Geological Sciences, Brown University, Providence, Rhode Island.

MS Geological Sciences with Concentration in Geophysics, University of Arizona, Tucson, Arizona.

	A	ВСС	
1	Gus 2004 Apportioned A	ssessment Expenditures	
2			
3	Geophysical	······································	
_4	Geophysicist charges	\$3,916.86	
ⁱ ~5	Geophysicist field exp.	\$420.00	
6	Kaufman time	\$1,528.68	11 Mar 14 Mar
7	Kaufman field exp	\$210.00	
8	Total Geophysical	\$6,075.54	
9			
10	Line Cutting		
11	Murray	\$1,100.00	1
12	Kaufman	\$600.00	
13	Kaufman field exp.	\$315.00	
14	Total Line	\$2,015.00	No. 64 No. 6 June - and a later
15			
16	Geological		
17	Kaufman	\$1,019.12	
18	Drafting, copies etc.	\$89.17	
19	Total Geological	\$1,108.29	
20			
21	Total	\$9,198,83	

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GROLOGICAL CURRENT CUR

	Å	8	C (D	E
1.	Gus 2004 Assessment I	Expenditures			
2			M M debad dilaman a second spectra de la consecuta de la		
3	Contractor	Service Provided	Cost U.S.*	Cost Cdn.	
4				PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP	
5	Doug Murray	line preparation		\$1,100.00	
6					
7	Louis O'Connor	geophysical	\$3,074.70	\$3,916.86	
8	Miles (Miles (Mi				
9	Wayne Reich	Drafting	\$70.00	\$89.17	
10	M. A. Kaufman time**				
11	Sept. 12	Map. prep., travel	\$400.00	\$509.56	
12	13	supervise and line cutting	\$400.00	\$509.56	
13	14	line cutting assist.		\$200.00	
14	15	line cutting assist.		\$200.00	
15	16	line cutting assist.		\$200.00	
16	17	Supervise geophysical work			
17		and travel	\$400.00	\$509.56	
18	Sept. 25-Oct. 3	geophysical interp. and report prep.			
19	2 days		\$800.00	\$1,019.12	
20					
21					
22	Motel/meals				
23	at \$105.00/day	Kaufman 5 days		\$525.00	
24		O'Connor 4 days		\$420.00	
25					
26	Total			\$9,198.83	
27					
28	* x 1.2739 U.S. to Cdn.				
29					
30	** 400/day U.S. for				
31	geological/geophysical			Q.	<u>S</u> .
32	200 day/cdn for line			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
33	cutting			. 87 6	



LOU O'CONNOR CONSULTING GEOPHYSICIST

P.O. Box 237 Liberty Lake, WA 99019 Phone 509-255-6652 LJOGP@netscape.net

September 24, 2004

Morris Kaufman 10805 E. 23rd Spokane, WA 509-924 7710

INVOICE:

For Maxmin II+ geophysical mapping and interpretation on the Gus Claims, Nelson Mining Distric, British Columbia.

For consulting time September, 2004. 7 days at \$400 /day : \$2800. US

Expenses for field work near Salmo, B.C. Canadian Work Permit : \$116.88 US Mileage: 295 miles @ \$.50/mile : \$147.50 US Meals: 3 lunches: \$10.32 US

Total Bill: \$3074.70 US

Sincerely,

Homo D. O'Connor

Lou O'Connor



Deug MURR.97 Box 935 SALMOBC. Vo**s** 120 250-351-9953

	522013	
DATE SEPT	104	
CUSTOMER'S ORDER		1

	SOLD TO ADDRESS		SHIP TO ADDRESS	SHIP TO <u>MCE KAUFMAN</u> ADDRESS <u>SPERAUE WASHING</u>					
	TAX REG. NO.		SALESPERSON	FOB	TERMS		VIA		
ſ	QUANTITY DESCRIPTION			1	PRICE		AMOUNT		OUNT
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	13	LINE CUTTINY						200	CC
ſ	14	LINES						200	00
	15	LINES				_		200	00
	16	LINES						200	00
	17	211125						200	ec
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			(our of	my we			TOTAL	1100	00



Production Statistics (based on smelter shipment records) And Drill Hole Information

Gus Claim Group, Nelson M. D.

In Metric Units

Lone Silver Mine: 174 tonnes av. 15.3 gms/tonne gold, 3,977 gms/tonne silver

Lucky Strike Mine; 55 tonnes av. 44.2 gms/tonne gold, 1,166 gms/tonne silver

Davne Mine; 3.6 tonnes av. 94.3 gms/tonne gold, 1,474 gms/tonne silver

Weighted Average: 232 tonnes @ 23 gms/tonne gold, 3,219 gms/tonne silver.

Expressed in ounces per ton

Lone Silver Mine ;192 tons av. .447 opt Au, 116 opt Ag

Lucky Strike Mine; 61 tons av. 1.29 opt Au, 34 opt Ag

Davne Mine; 4 tons av. 2.75 opt Au, 43 opt Ag

Orvana Drill Hole 310 degrees at - 60 degrees

GPS UTM Location NAD 83; 0482399E, 5432997N

Interval in feet ppb Au

143-147 161 147-150 2158 156-161 330 265-270.5 106 276-279.3 156 118 300-305 306-312 83 446.2-451.2 80

Note: Much of this hole was not assayed at all. A detailed drill log is available, but the core, except for a few pieces which I have was long ago discarded.



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JY A	39 ²⁴		
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· . 1	A strange	LEG	END
	हरुद्	Altered tone: remo	bilized carbonate minor ougrtz
		brecciated dolomite	a at Lone Silver Mine.
	GN	Feldspar – biotite	gneiss; age not known.
	9	Active Formation; c phyllite and slate.	carbonaceous argillite, lime,
	8a	Nelway Formation;	limestone and siltstone.
· · ·	8oc	Nelway Formation;	Carbonaceous lime.
•	7c	Laib Formation; ph	yllite and schist, some limey.
	 `	Bedding, showing s	strike and dip
	80 7c	Contact after GSC	Map 1145A
	FRAFA	Thrust fault zone i	mapped, showing strike and dip.
	~~	Fault, fracture, or	shear zone mapped, showing dip.
	""	Trend of fault or f air photos; dip pro	fracture zone interpreted from obably steep.
	٥	Small pit	
	M	Open cut	
	`	Adit	
		Area of outcrop w	ith shallow overburden.
	Qai	Deep overburden	
·	*	Legal corner post	
	<u></u>	Swamp	
	· .		
		GUS CL Nelson Mining Dis	AIM GROUP Trict, british columbia
		GEOLO	DGIC MAP
	DRAWING	RECORD	
	DATE Nov. 1995	DES Mapping and compilation	UKIPTION BY
		Reference: GSC Map 1145	M
	DRAWING	NO.	
	GUS.DWG		PLAIE







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