Follow-up 2007 Geologic Mapping, Structural Analysis, and Evaluation of Gold Deposits in Chandalar Mining District, Northern Alaska

Confidential Report For:
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CAPTIONS FOR COVER PHOTOS

Left Photo: Little Squaw Gold Mining Company Chief Geologist Jim Barker examines auriferous, quartz-sulfide vein at the face of the 100 foot level, Summit gold mine, Chandalar District, Northern Alaska. Photo by writer.

Right Photo: Outcrop in cirque headwall of Little Squaw Creek Basin east of the main Ratchet Ridge gold-arsenic occurrence @ station 07BT180/#4643 contains abundant whitish “leachate” identified as the magnesium sulfate epsomite. Epsomite, alunogen and gypsum, which occur in the hanging walls of the Mikado, Indicate-Tonopah, Summit, and other gold-bearing veins, are interpreted to be mineralogical signatures for gold-bearing hydrothermal systems throughout the Chandalar district. Photo by Writer.

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Executive Summary

Little Squaw Gold Mining Company, Inc. (LSGMC) owns approximately 14,800 acres (23 square mile) of state mining claims and holds patented title to 426.5 acres in 21 federal lode and one mill site claims in the historic Chandalar Mining district of Northern Alaska. On April 13th, 2007, Pacific Rim Geological Consulting, Inc. (PRGCI) entered into a contractual agreement with LSGMC to undertake mineral exploration studies based on geological mapping conducted by PRGCI in 2006. The scope of the 2007 work was: 1) field-check a small portion of the geologic map where questions still needed to be answered; and 2) focus on prospect-scale, structural investigations and chip-channel sampling programs at selected mines and prospects in the district. Field work was conducted by the writer, T.K. Bundtzen, and geological contractor G.M. Laird from June 30 to July 11, 2007.

PRGCI spent eight (8) man days remapping the ridgeline separating Little Squaw and Little McLellan Creek basins. This work resulted in the removal of the structural horst interpreted to expose the lower plate schist series. The 2007 work identifies the presence of meta-gabbro sills (unit MzPzg) in both the lower and upper plates on the ridge east of Little Squaw Creek. Other mapped upper plate units that are present on Little Squaw Peak cross the valley eastward to the remapped area.

PRGCI studied structures that appear to control mesothermal, low sulfide gold-quartz veins. All of the important gold-quartz lodes that have been historically explored and developed in the Chandalar district occur along the northwest-striking, high angle faults, which are referred to in this report as 'vein-faults'. These auriferous structures have an average strike of north 72^{o} west (108^{o}), and dip nearly vertically. A conjugate set of high angle faults and joint sets occurs throughout the Chandalar Mining district. The general pattern is one of conjugate, northwest and northeast striking, high angle joint set throughout the map area. The average orientation of the northwest striking joints is north 58^{o} west (122^{o}), dipping 85^{o} southwest. The average orientation of the northeast striking joints is north 65^{o} east (065^{o}), dipping 55^{o} northwest.

There are more than thirty (30) mesothermal gold-quartz occurrences, prospects, and mines in the Chandalar mining district. PRGCI did not systematically investigate well known prospects such as the Little Squaw, Eneveloe, Kiska, Palisgren, or Summit deposits because of the results of past work on known properties, including drill-testing during 2006 and prior times. Instead, PRGCI selected four targets with potential to contain bulk mineable gold deposit, based on structural, geochemical and alteration criteria established for mesothermal gold deposits elsewhere.

The most promising prospect areas are: 1) the Mikado Shear Zone in the general vicinity of the Mikado Mine-St Mary's Pass areas; 2) the Indicate-Tonopah shear zone; 3) the Aurora Gulch disseminated gold prospect; and 4) the Ratchet Ridge/Summit Mine hanging wall veinlet system. PRGCI produced prospect-scale maps of all of these areas and collected 104 chip-channel samples in order to ascertain which structures and zones in these areas carry significant gold values.

PRGCI documented that low grade, joint-controlled, auriferous mineralization occurs in all of the sites investigated—namely Aurora Gulch, Ratchet Ridge, portions of the Mikado structure, the Indicate-Tonopah system, which PRGCI believes is the offset portion of the Mikado structure, and the Summit vein-fault, which may be the base of the Ratchet Ridge veinlet system. Gold-bearing solutions are intruding up along joint surfaces and minor structures in the zone adjacent to the main fault structures that define historic prospects, commonly in hanging wall structural conduits. PRGCI's work confirms that intersecting northeast striking, quartz-bearing structures at, for example, those mapped and sampled in the Mikado system, do contain significant gold concentrations over significant widths.

'White leachate' alteration consisting of epsomite, alunogen, and gypsum is conspicuously present in the 'hanging wall' portions of the Mikado Mine pit and extensions of the Mikado vein-fault to both the southeast and northwest, and in the Indicate-Tonopah, Summit, Ratchet Ridge, and Aurora Gulch areas. PRGCI also noted this alteration type at the Little Squaw gold mine. The 'white leachate' and hematite alteration could be used to locate drill holes or additional sampling efforts.

Gold concentrations in the main vein-fault systems evaluated are spotty and discontinuous. The relative gold content of adjacent, stringer veinlet zones is low or present in trace amounts, but is consistently present. Such factors makes the task of discovering a mineralized rock body of sufficient size and grade a challenge. PRGCI judges that the four properties listed below have enough information to initiate a phase I drill program in 2008.

1) *Mikado Target* The highest priority target for LSGMC should be the Mikado Shear Zone; a.k.a., Mikado Vein-Fault Zone, which offers the best chance in the district for discovery of a bulk-mineable gold deposit. This fundamental structural control can be traced with certainty for six kilometers (4 miles) from St. Mary's Creek northwestward to the divide between Tobin and Boulder Creeks. The Mikado shear zone is the best developed in the district, with shearing, faulting and silica-sulfide (gold) emplacement veins occurring over total widths ranging from 25-to-65 meters. These characteristics compare favorably to other mesothermal lode districts where large bulk mineable gold deposits have been successfully discovered and developed. The Mikado fault zone should be drill tested along the zone southeast of the historic Mikado mine. Drill collars set up to intersect both northeast and northwest striking auriferous veins in the general vicinity of trenches 3-E, 4-E, and 5-E should attempt to intersect the zone at about 50 degrees dip (see figure 30). The Mikado Vein-Fault system should also be drill tested near the pass between Tobin and St. Mary's Creeks, where gold mineralization appears to be concentrated. PRGCI recommends that, since the Mikado Fault system is structurally complex, collars should be designed to scissors the mineralized zones on both the southwest and northeast sides, with drills from each side aimed back into the structural target. Three or more drill holes collared from the northeast and three or more drill holes collared from the southwest (total=1,200-1,800+ meters) would probably be sufficient to test the Mikado anomalies with a first phase program for the next year.

2) *Ratchet Ridge/Summit Hanging Wall Target* The Ratchet Ridge system was shown during the 2007 work to have a strike length of at least 600 meters. When combined with the possible association with the hanging wall of the Summit mine, that could be lengthened to1,000 meters, making the northwest-striking, Summit-Ratchet Ridge zone second in size only to the Mikado Shear and Fault system. Two or more drill holes should step out with collars about 100 meters north of the 100 foot level area of the Summit Mine and drill back south into the vein system. The Ratchet Ridge prospect should be tested along strike in the general vicinity, using anomalous samples and alteration as guides for sighting drill collars. A 800-1,200 meter program would be sufficient to for phase I test in the prospect areas during 2007.

3) Aurora Gulch Target should be evaluated with a drill in 2008. The Aurora Gulch target is not a high grade, vein-fault deposit, but does contain low grade, bulk-mineable potential. Sampling and geological work by PRGCI suggests a minimum 65-meter-wide, northwest-striking high angle zone with gold values. A scissors of two or more drill holes could test the target area. Other drill collars could be sited using the soil/chip grid and magnetic anomalies presented by Jim Barker. This exploration campaign would likely ascertain whether or not there is sufficient density of gold-bearing veinlets to constitute a bulk-mineable target at Aurora Gulch. A 600 meter program would be sufficient to initiate a test of this target during 2007.

4) *Indicate-Tonopah Vein Fault* The Indicate Tonopah vein-fault system should be drill-tested when property issues in Big Creek Valley have been resolved. Collars should be bracketed across the structure from southeast to northwest and drill into the northwest-striking mineral trend from both the southwest and northeast. Four to six holes, each 200-300 meters in depth could test the system.

Important caveats for the drilling include the stipulation that all drill holes be completed to a minimum depth of 200-300 meters and accomplished with a minimum of 'H' core size or preferably 'PQ' core size. Chandalar Development Corporation and previous operators conducted both percussion and small diameter, 'AQ' diamond core drilling programs in the Mikado mineral zone, but both techniques suffered from significant recovery problems in frozen clay gouge and fault zones. Diamond core drilling of, insufficient size and hole depth will likely fail to adequately test the mesothermal gold prospects, due to the nugget effect, the above cited core recovery problems, and need to test the prospects at some depth.

PRGCI recommends that more surface exploration be conducted on other prospects in the district before drill testing commences. Abundant surface and subsurface work has already been completed on the Little Squaw and Eneveloe-Chandalar systems, but more drilling could be initiated after more surface data is acquired and existing data is scrutinized.

A priority should also be placed on the completion of systematic grid-style soil surveys over larger parts of the district, which does not exist at present. Such a grid would allow for constructing contours, which would be invaluable for locating drill collars. More magnetic survey data should be acquired throughout the district as well with the goal of providing a contoured, magnetic alteration guide for interpretation and sighting of drill collars for testing. Perhaps new deposit types would be discovered if more regional geochemical/magnetic coverage was undertaken by LSGMC.

Introduction, Purpose, and Qualifications

Little Squaw Gold Mining Company, Inc. (LSGMC) owns approximately 14,800 acres (23 square mile) of state mining claims and holds patented title to 426.5 acres in 21 federal lode and one mill site claims in the Chandalar Mining district of Northern Alaska. This historic, frontier gold mining district is centered on 67^{o}32' Latitude and 148^{o}10' Longitude, in the eastern portion of the southern Brooks Range. Access to the remote camp is by aircraft via a 4,200-foot-long (1,280 m), markedly improved airstrip on Big Squaw Creek or by a 65 mile-long (104 km) RS2477 winter trail to nearby Chandalar Lake (figure 1). Specific geographic details, including a mining history summary, was presented by Barker and Bundtzen (2004), and will not be repeated here.

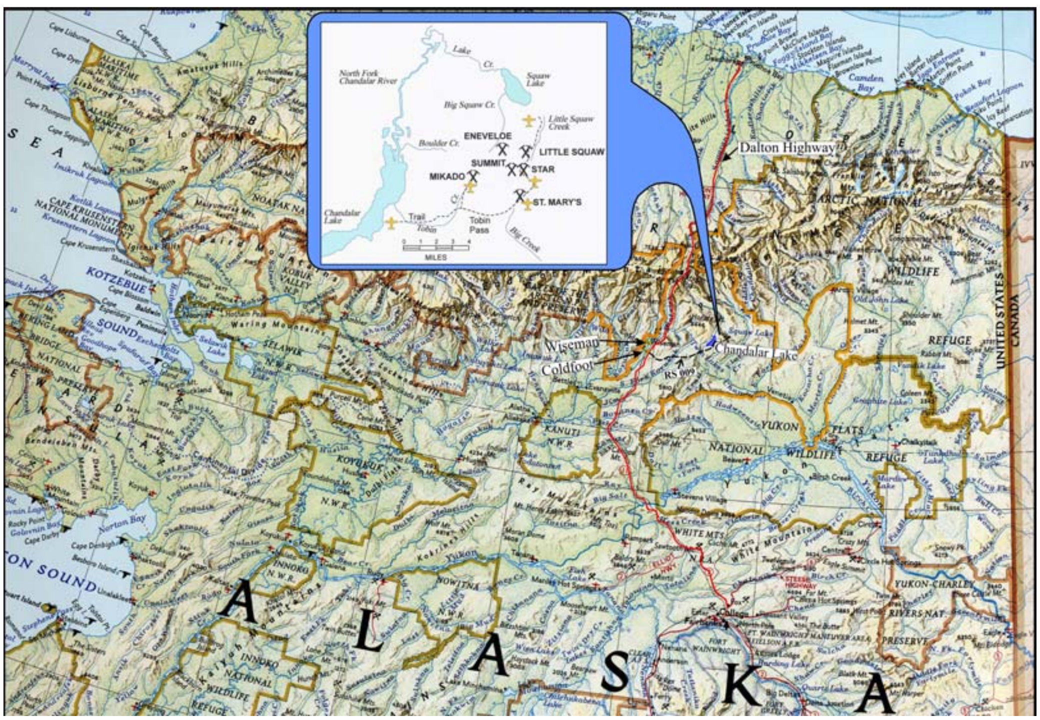

Figure 1 Location of Chandalar Mining District, showing general geographic features and past productive hardrock mines.

During 2006, LSGMC asked Pacific Rim Geological Consulting, Inc. (PRGCI) to produce a 1:20,000 scale geologic map of their mining claim area. The contracted 2006 investigation was designed to provide LSGMC with a geologic framework on which to better understand and classify the firm's mineral deposits, mainly gold, and to provide guidelines from which to conduct mineral exploration and baseline geochemical studies could be successfully undertaken. A simplified geologic map generated from that work is provided in figure 2.

On April 13th, 2007, PRGCI entered into another contractual agreement with LSGMC to undertake follow-up investigations based on the 2006 work. The scope of the 2007 work is: 1) field-check a small portion of the geologic map where mapping problems needed to be resolved; and 2) focus on prospect-level structural investigations and chip-channel sampling programs in selected targets on claims held by LSGMC. PRGCI's 2007 investigations were primarily designed to acquire knowledge to assist in the drill-testing of lode gold targets.

T.K. Bundtzen, hereafter referred to as 'the writer', is a Certified Professional Geologist (CPG#10912) with the American Institute of Professional Geologists (AIPG). The writer's interpretations, resource classification terminology, and recommendations for exploration work on individual mineral prospects are compliant under Canadian Securities law 43-101, and also follow guidelines presented by the U.S. Securities and Exchange Commission Act of 1933, U.S. Geological Survey Circular 831, and U.S. Geological Survey Bulletin 1450-A. A Statement of Qualifications appears in Appendix IV of this report.

Acknowledgements

PRGCI thanks LSGMC Chief Geologist James Barker, LSGMC General Operations Manager Robert Pate, LSGMC President Richard R. Walters, camp managers Josh Horst and Larry Nichols, and other LRGMC staff for their assistance and useful discussions during field investigations. Bart Cannon of Cannon Microprobe completed contractual microprobe analyses of mineralized rock and panned concentrates collected during 2007. Discussions with Jeff Keener concerning placer mineralogy and formation in the area was useful in understanding nearby lode occurrences.

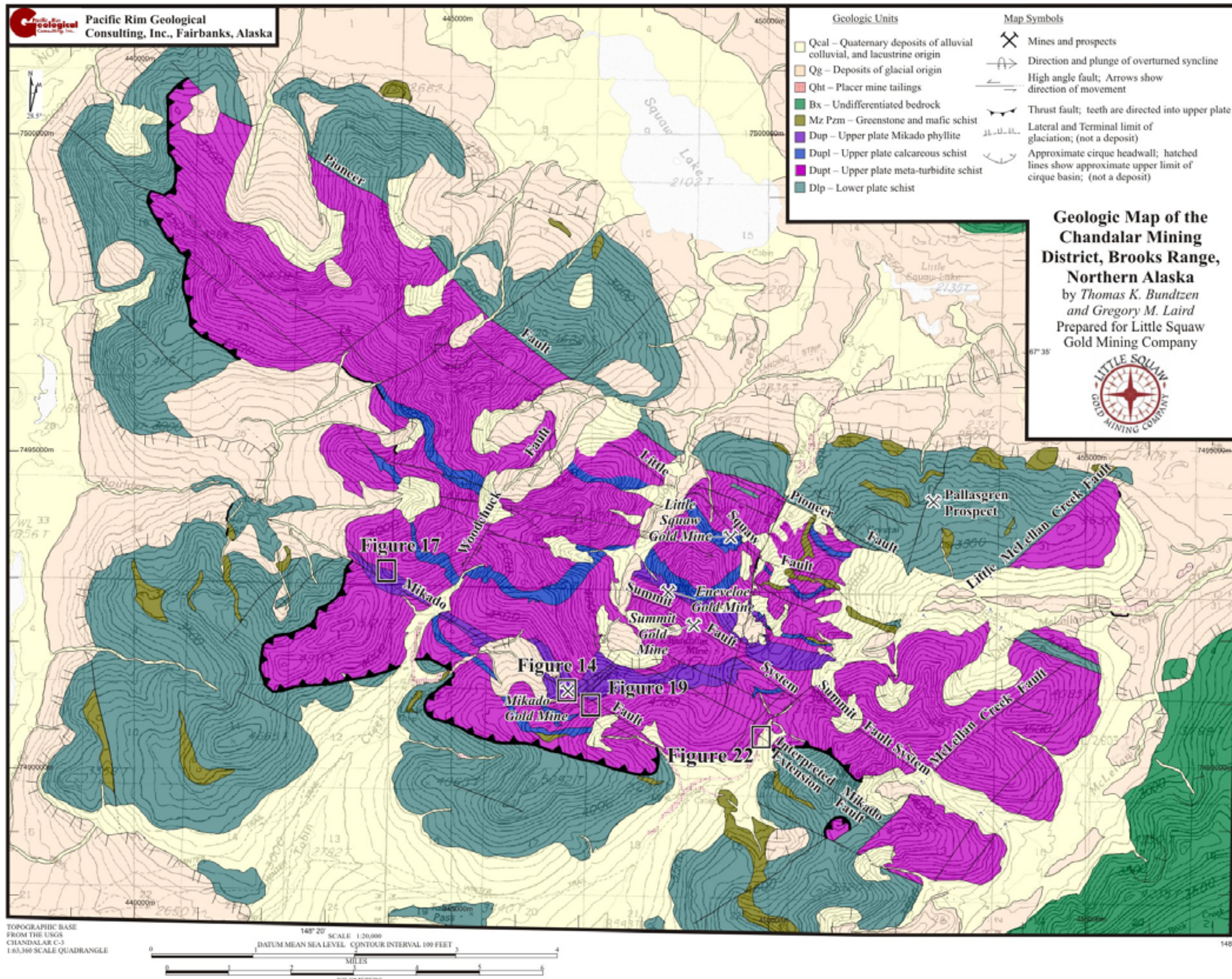

Figure 2 Simplified geologic map of the Chandalar Mining district illustrating high angle faults that control gold-bearing, quartz-sulfide vein mineralization and locations of areas of investigations along Mikado structure; modified from Bundtzen and Laird (2007).

Methodology

PRGCI chose to complete the 2007 investigations using the following work outline:

1) *<u>Detailed, prospect-level geologic mapping in the upper bowl of Little Squaw Creek</u>* Many of the high grade vein-faults (e.g., Little Squaw, Eneveloe, Summit) trend SE-NW across the upper bowl of Little Squaw Creek, but are not well traced beyond this area to the southeast. The 2006 interpretation by previous work by Chipp (1970) and Duke (1975) and Bundtzen and Laird (2007) assigned meta-gabbro, only to the 'lower plate', but meta-gabbro sometimes appeared to be in 'upper plate' section. LSGMC had previously identified gold-bearing zones and elevated gold-in-soil anomalies in a zone of stockwork quartz veinlets in a prospect that he referred to as the *Aurora Gulch zone*.

PRGCI decided to complete detailed, prospect-level, outcrop geologic maps and sampling of a three square mile area to: 1) better understand the mode of the meta-gabbro bodies; and 2) see if the relationship of the vein-faults and schist hosted mineralization are related. Chip and soil sampling would necessarily accompany the mapping effort. The microprobe analytical results from the 2006 samples collected by PRGCI have shown that the chief alteration type associated with known gold-bearing mineralized veins include ankerite, siderite, and other carbonate minerals. Specific attention would be paid to carbonate styles of alteration since carbonate alteration envelopes signature of the auriferous hydrothermal system on LSGMC properties.

2) *<u>Detailed analysis of mineralized Mikado Phyllite:</u>* The Mikado Phyllite is a fissle carbonaceous, phyllite-schist unit that tracks across the area of claims held by LSGMC. The Mikado phyllite hosts extensive quartz veins and shear zones and forms an envelope around the Mikado, Summit, Eneveloe-Chandalar and Ratchet Ridge gold-bearing, vein-fault systems. One conspicuous feature of the Mikado Phyllite is the association of kill zones in organic cover and in aqueous springs emitting from seepage areas. Sphalerite was identified during microprobe analysis in drill cuttings of Mikado Phyllite at the Ratchet Ridge prospect. Work during 2007 was designed to sample and study structural controls in the enigmatic Mikado Phyllite unit, and try and determine if there is a association between the metamorphic unit and auriferous mineralization.

3) *<u>Analysis of the relationship between northeast-striking and northwest-striking vein-fault systems.</u>* A conjugate system of northwest-striking and northeast-striking vein-faults cut the metamorphic section on LSGMC properties. The northwest-striking veins have been almost exclusively thought to be the gold-bearings systems in past years, but very little work has been done on the northeast-striking veins. During PRGCI, investigated and sampled the Mikado system to see if wider areas of gold mineralization could be demonstrated.

Field work was conducted by T.K. Bundtzen, the writer and geological contractor G.M. Laird from June 30 to July 11, 2007. As in 2006, PRGCI based out of LSGMC's exploration camp on Mello Bench in Little Squaw Creek basin. We traversed the study areas with 4-wheelers provided by the company on the 13 miles (21 km) of mining roads and trails that access most of the claims in the district.

PRGCI created 1:10,000 scale base maps with superimposed UTM grids to plot data in the field during the 2007 field investigations. More detailed prospect maps were created in the field at scales ranging from 1 inch = 50 feet to 1 inch=100 feet. Station and geochemical sample data was input into an EXCEL spread sheet on a PRGCI lap top computer at LSGMC's Mello Bench camp, the information of which appears in appendix I of this report.

Samples were taken across mineralized zones in order to test structural conduits and rock units for mineralization potential. Most of these samples were chipped across measured intervals, and referred to as chip-channel samples. After data was input onto LSGMC sample sheets, PRGCI transported 110 samples to the ALS Chemex preparation laboratory in Fairbanks, where they were submitted for the following analyses: 35 element Aqua Regia ICP-AES (ME-ICP41), 30 gram gold (Au) FA-AA finish (Au-AA23), and 30 gram gold gravimetric (Au-GRA21) analyses. The certified analytical results and preliminary 'finalized' analyses appear in Appendix II of this report.

Seventeen (17) samples of lode mineralization and panned concentrates were selected for mineralogical identification and shipped to Cannon Microprobe Inc. in Seattle Washington. Preliminary results of this work appear in Appendix III.

Revisions to 2006 PRGCI Geologic Map, Chandalar Mining District

PRGCI spent eight (8) man days remapping the ridgeline separating Little Squaw and Little McLellan Creek basins. The revised geologic map is found on Sheet 1

Last year, PRGCI (Bundtzen and Laird, 2007) provided a detailed summary of the geology of the study area and detailed descriptions of geologic units in the Chandalar Mining district, which will not be repeated here. PRGCI's work was built on mapping completed by Brosge and Reiser (1964), Chipp (1970), and Duke (1975). The metamorphic rock units are subdivided into *Lower Plate* and *Upper Plate* sequences, which are separated by an unnamed décollement surface (thrust fault) on the south and a high angle structure (Pioneer Fault) on the north. The units are undated in the map area but thought to be Devonian in age, base on correlation with the 'schist belt' to the west.

The *Lower Plate* consists of black schist, phyllite, slate, and quartzite that has been intruded locally by greenstone/gabbro sills or dikes.   During the 2006 geologic mapping, six metamorphosed rock units comprise the *Lower Plate*: 1) Medium to dark gray, quartz-graphite-chlorite 'black schist' (Dlb, sheet 1); 2) greenish gray, chlorite-rich, locally calcareous tuffaceous schist (Dlc); 3) micaceous quartzite (Dlq), 4) potassium feldspar rich meta-felsic tuff (Dlf), 5) heterogeneous, light to dark, greenish gray, sub-to-non-foliated greenstone, meta-diorite and meta-gabbro (MzPzg); and 6) nearly un-metamorphosed, dark greenish-gray, meta-volcanic agglomerate (MzPza). *Lower Plate* units occur in two northwest-trending belts that are in structural contact with the *Upper Plate*, which forms the core of the study area.

During the 2006 geologic mapping, five metamorphosed rock units comprise the *Upper Plate*: 1) Gray, carbonaceous, 'fissle' platy schist and phyllite hereafter referred to as the Mikado Pyllite   (Dup); 2) Fine to coarse grained, quartz chlorite muscovite schist, with local meta-turbidite schist (Dum); 3) Fine to coarse grained, layered, meta-turbidite schist (Dut; figure 3), 4) light gray, actinolite-bearing calcareous meta-sandstone and schist (Dul), and 5) Light gray, blocky, quartz-rich, muscovite oligoclase schist (Dus) with local garnets.

All of the lower and upper units mentioned above occur on the ridge remapped during 2007. The assumption last year was that the meta-gabbro bodies (MzPzg) were confined to the lower plate only and did not appear in the upper plate sequence. This is generally true throughout the map area; however, meta-gabbro sill form intrusions were mapped in 2006 between the Uranus-Aurora and Little Squaw Fault systems, which bisect upper plate rocks in other portions of the map area. Because we believed that there were rocks exotic to the Upper Plate in this area, namely the meat-gabbro sills and calc-tuffaceous schist of the Dlc unit, PRGCI interpreted the zone between the Uranus-Aurora and Little Squaw Faults as a structural horst, which was consistent with structural style encountered in other areas. The 2007 mapping revised several 2006 geologic interpretations. PRGCI discovered that:

1) The geological units between the Uranus-Aurora and Little Squaw Faults on the ridge east of Little Squaw Creek are correlative with upper plate units to the west, and are not part of a structural horst of the *Lower Plate* as depicted on the 2006 geologic map. Units Dut (meta-turbidite schist), Dum (quartz-chorite-muscovite schist), Dul (calcareous mica schist), and Dup (Mikado Phyllite) all link with *Upper Plate* units to the west of Little Squaw Creek. The calcareous schist (Dul) unit south of the Uranus gold-quartz prospect is believed to be equivalent to the same unit mapped in isoclinally folded limbs on the south flank of Little Squaw Peak to the west.

2) The Dlc (chorite-albite-calcareous schist) mapped in the horst of *Lower Plate* between the Uranus-Aurora structure and the Little Squaw Fault was reinterpreted to be the combined Dum, Dut, and Dul units that correlate with the *Upper Plate* section on the north flank of Little Squaw Peak. The area mapped as unit Dlc on east Little Squaw ridge is not the Dlc unit that appears in the *Lower Plate* to the north.

3) The MzPzg unit (meta-gabbro) that occurs within the previously interpreted horst of *Lower Plate* is a large gabbroic sill complex that intrudes the meta-turbidite schist (Dut unit) of the *Upper Plate*. This is the only part of the Chandalar map area where there is clear association between meta-gabbro (MzPzg) and units of the *Upper Plate*. A plausible, but less likely hypothesis concerning distribution of MzPzg sills can be made. Three calcareous schist samples analyzed from the north flank of Little Squaw Peak contain relatively high MgO (up to 7.12 percent) and somewhat elevated chromium values (0.03 percent; see Bundtzen and Laird (2007, table 2, p. 29; Appendix I). Although indistinguishable from calc-schist (unit Dul) mapped throughout the Chandalar district, the protolith of unit Dul on the north flank of Little Squaw Peak could conceivably have originally been a mafic sill that has been completed altered to a calcareous metamorphic rock.

4) The Pioneer Fault was reconfirmed to be the high angle structural boundary that separates the *Lower Plate* to the north from the *Upper Plate* to the south.

5) A thin but distinct, previously unrecognized, layer of K-spar-rich, micaceous metamorphosed felsic tuff as mapped during 2006 (Dlf unit) was found inter-layered with unit Dlc on Crystal Peak.

Figure 3 Meta-turbidite schist @ station 07BT112 is about 250 meters north of the Uranus-Aurora fault; rocks there show relict graded bedding textures.

Figure 4 Rubble-crop of meta-gabbro (unit MzPzg) at station 07BT132 on road cut between Uranus-Aurora and Little Squaw high angle faults.

6) The calcareous schist sections mapped as unit Dul are shown in three distinct bands across the map area (see revised geologic map, sheet 1). They could conceivably be separated into three separate units; i.e., Dul_{1-3}, but because of the isoclinal folding, which implies that structural repetitions of mapped units are probable, we have retained them on the revised map as a single unit.

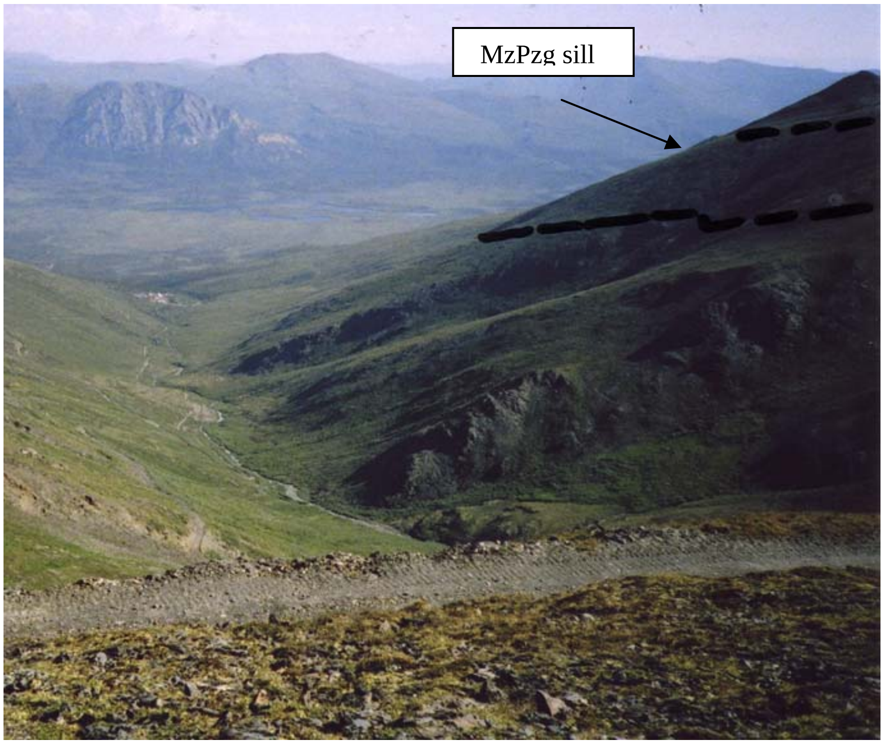

Figure 5 Little Squaw Creek valley looking north showing meta-gabbro sill (unit MzPzg) on right limit of valley.

Figure 6 Gold rush era stake from Crystal #3 federal lode claim on right limit of Little Squaw Valley at station 07BT149 (elevation 4,180 feet) is located at base of meta-gabbro sill (unit MzPzg).

Structural, Mineralogical, and Geochemical Determinations from Selected Gold-Bearing Mines and Prospects, Chandalar District

Introduction

Lode deposits of the Chandalar mining district are low sulfide-bearing, gold-quartz vein deposits that are wholly hosted in the metamorphic rock units of the ‘upper’ and ‘lower’ metamorphic plates. All known gold prospects and deposits are structurally controlled along faults, shear zones, and joint sets—hence we use the term “vein-fault” to describe these deposits in this report. The 2007 investigations conducted by PRGCI concentrated on a structural analysis of gold-quartz vein-fault mineralization and on collecting samples from the auriferous, structural zones. A conjugate set of high angle faults and joint sets occurs throughout the Chandalar Mining district. Figure 7 summarizes joint orientations from 385 stations collected during both 2006 and 2007. The general pattern is one of conjugate, northwest and northeast striking, high angle joint set throughout the map area. The average orientation of the northwest striking joints (n=205) is north 58^o west (122^o), dipping 85^o southwest. The average orientation of the northeast striking joints (n=122) is north 65^o east (065^o), dipping 55^o northwest. There is a scatter of joints (n=58) that dip at low angle or exhibit near-horizontal orientations.

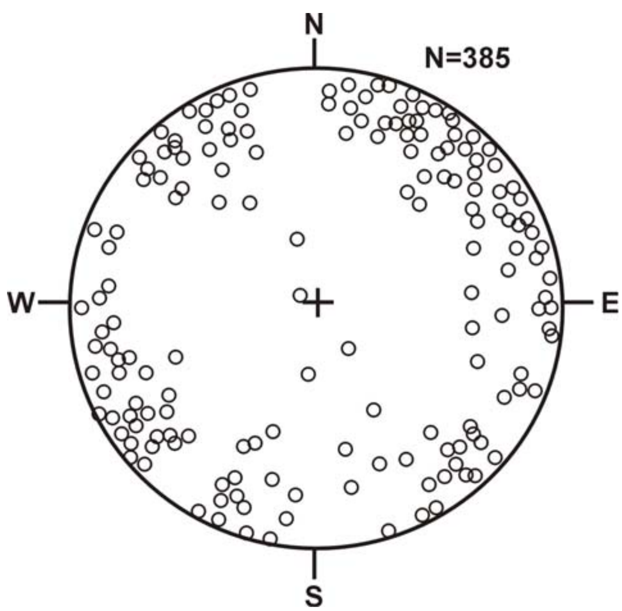

Figure 7 Lower Hemisphere Equal Area Projection Showing Joint Orientations from Chandalar Mining District, Northern Alaska; data from Bundtzen and Laird, (2007; Appendix I) and from Appendix I of this report.

High angle vein-faults and mineralized joints control most of the auriferous mineralization known in the Chandalar Mining district. The most prominent structures thus far recognized are northwest striking, steeply or vertically dipping vein-faults that are concentrated in the central portion of the map area. The Mikado, Summit, Eneveloe, and Little Squaw, 'vein-faults' host sulfide-poor, gold-quartz deposits that have produced an estimated 9,039 ounces (290 kg) gold from 11,819 tons of ore at a recovered grade of 25.9 grams/tonne (0.76 oz/ton) gold. Gold recovery from theses deposits was relatively low, averaging about 75 percent, and head grades for all exploited deposits averaged 39.9 grams/tonne (1.17 oz/ton) gold (Barker and Bundtzen, 2004). Other vein-fault deposits, including the Pioneer, Uranus-Aurora, Palisgren, the Star Group, and Indicate-Tonopah also contain significant gold concentrations. Two high angle faults, the Mikado and Pioneer faults, can be traced across the district for at least ten (10) kilometers (6 miles). Figure 8 is a simplified rose diagram depicting measurements from mineralized joint and fault planes within vein-fault systems throughout the Chandalar study area; measurements from both 2006 and 2007 investigations have been combined.

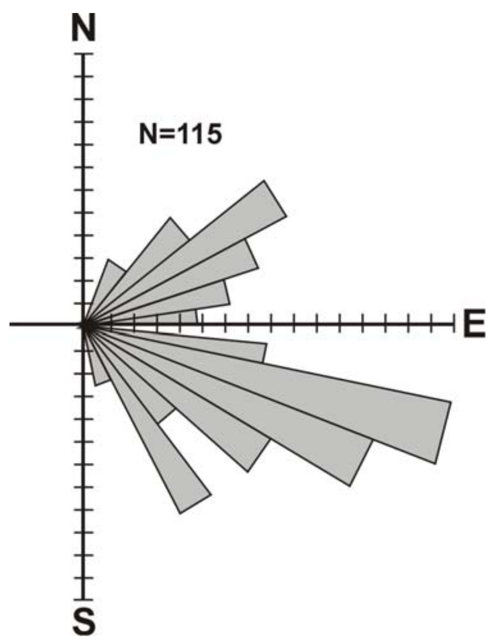

Figure 8 Rose diagram for strikes (in 10 degree increments) of mineralized vein-faults and mineralized joint services from the Chandalar Mining District of Northern Alaska; data from Bundtzen and Laird (2007a; Appendix I) and from Appendix I of this report.

Sixty (60) of one hundred fifteen (115) or 52 percent of the total measurements range from north 55^o west (125^o) to north 85^o west (95^o) and average north 72^o west (108^o), with dips averaging 85^o southwest. Most of the largest vein-faults dip steeply south, but the Summit vein-fault mainly dips steeply north. There is a significant subset of orientations (n=29; 25 percent) that strike north 40-80^o east (040-080^o) and average north 60^o east (060^o). Most of these subordinate, northeast-striking measurements are from mineralized joint sets and not the major gold-bearing fault structures.   There is also mikma significant set of northeast-striking auriferous quartz veins in a portion of the Mikado structural zone. Not depicted in figure 8 are low angle, gold bearing fault zones that are best developed in the Mikado system but also occur in the Little Squaw, Eneveloe, and Uranus vein-faults

Utilizing fourteen (14) mineralogical, geochemical, Pb-Pb isotopic, fluid inclusion and other geological criteria, Barker and Bundtzen (2004) concluded that gold-bearing vein-fault systems in the Chandalar district can be classified as mesothermal, ‘orogenic’, low sulfide, gold-quartz deposits such as those in the Mother Lode district, of California, the Juneau Gold Belt and Cape Nome Mining District in Alaska, and many other worldwide examples (Cox and Singer, 1986; Goldfarb and others, 1997; Laznicka, 1985). These deposits are usually hosted in green schist facies, metamorphic piles often but not ubiquitously of flyschoid provenance, greenstone belts, or in granitic terranes where granitic plutons are hosts for structurally controlled mineralization. The gold deposits of the Chandalar District compare favorably in geological setting, geochemical background, and isotopic ages to those in the Cape Nome, Solomon, and Wiseman Districts also of northern and western Alaska. The Mikado vein has yielded an integrated Ar/Ar age of 111 Ma (Paul Layer, pers. commun., 2007) , which compares closely to an integrated Ar/Ar age of 113-114 Ma obtained by the writer from gold-quartz vein mineralization at the Rock Creek deposit in the Cape Nome district.

Barker and Bundtzen (2004) and Barker (2006) provide detailed information on nearly all individual mines and prospects in the Chandalar district, which will not be repeated here. The following priority targets are described below: 1) Aurora Gulch, Aurora-North, and Ratchet Ridge; 2) Mikado; and 3) Indicate-Tonopah; and 4) Several other selected properties.

Aurora Gulch, Aurora-North, and Ratchet Ridge Prospects

Figure 9 presents a geologic framework, structural measurements, and sites of chip-channel sampling in three zones of structurally controlled mineralization: 1) the *Aurora Gulch* zone of disseminated sulfide-mineralization; 2) mineralized quartz vein stockwork at *Aurora North*, and 3) mineralized quartz-sulfide stockwork at the *Ratchet Ridge* zone. Table 1 summarizes analytical results of chip-channel sampling efforts. Schist-hosted veinlet mineralization, which is associated with strong gold-in-soil anomalies, occurs with Fe-alteration in Aurora Gulch 0.5 km downstream from the Ratchet prospect. J.C. Barker (2006) suggests an association between gold-sulfide zones in schist with nearby meta-mafic sills of the MzPzg unit and to hematite alteration zones. Features such as albite segregations and albitization in MzPzg units suggest that sodic metasomatism is associated with emplacement of the MzPzg bodies.

PRGCI investigations during 2007 first focused first on *Aurora Gulch* gold-sulfide prospect (figure 9). Most of work completed by Barker occurs on the west-facing right limit slopes of upper Little Squaw Creek at elevations ranging from 3,200-3,600 feet with a roughly rectangular-shaped, 350 meter by 250 meter area. The general lack of outcrops limited, to some extent, our geological evaluation. Most of the observed gold-bearing mineralization occurs in thin, Fe-stained, quartz veinlets averaging about 2 cm in thickness that intrude joints striking north 65-80^o west (100-115^o)and dipping nearly vertically. Quartz veinlet density is highly variable and ranges from one veinlet per 30 cm to one veinlet per one meter. PRGCI took a series of seven (7) chip-channel samples across approximately 65 meters of chip-channel width (see samples #4536-4542; figures 9, 10). All of the samples had elevated gold values ranging from 0.024 to 1.400 grams/ton gold and averaging 0.367 g/t gold; with up to 1,055 ppm arsenic. Detectable antimony and silver values were intermittent, but elevated arsenic was detected in all samples. The roughly north-south sample line occurs in a conspicuous elliptically-shaped zone of FeOx-hematite alteration and gypsum-bearing alteration in both schist and greenstone, which was previously recognized and described by Barker (2006).

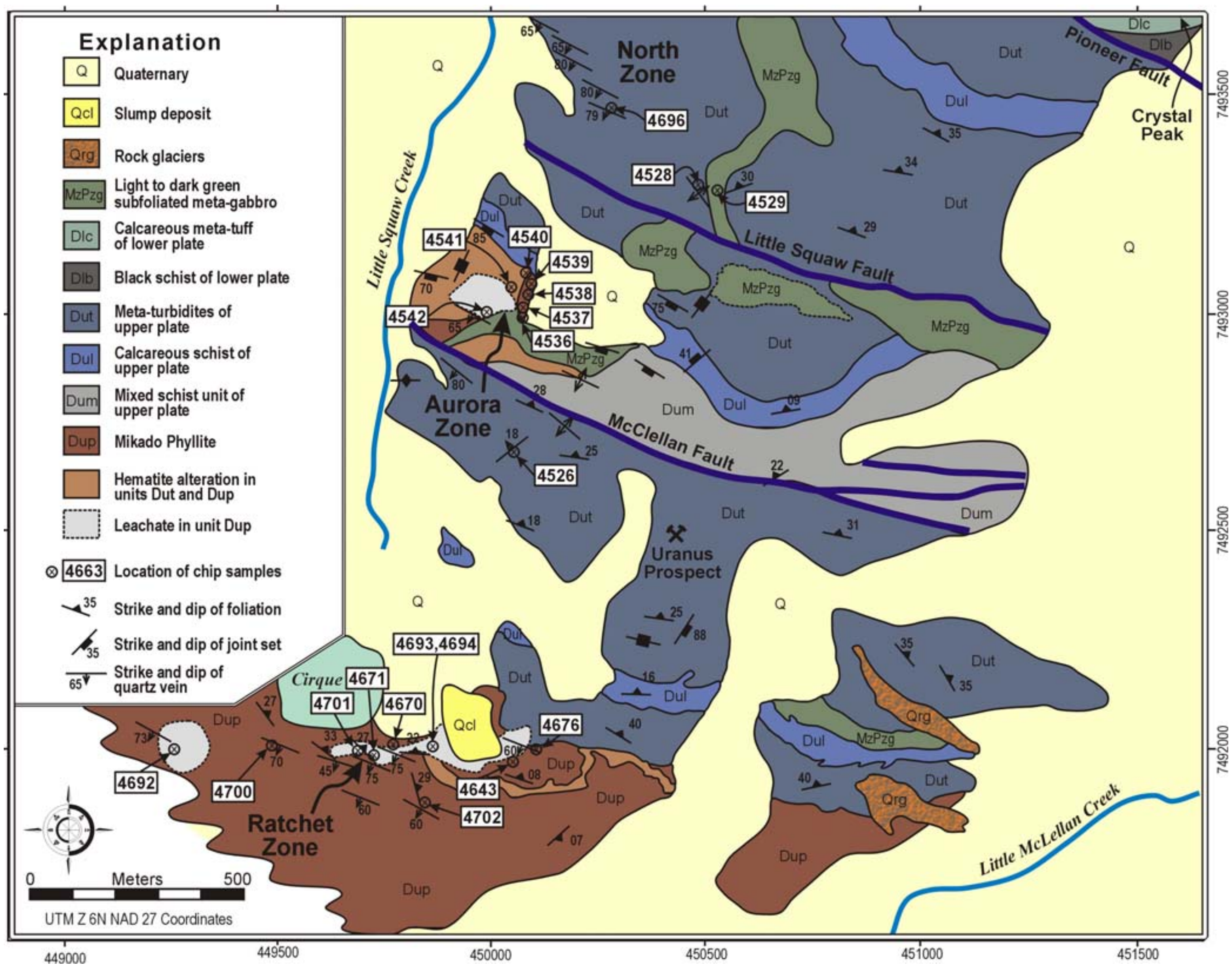

Figure 9 Geologic sketch of part of eastern, upper Little Squaw Stream basin showing sample locations and structural measurements from the Aurora Gulch, Aurora-North, and Ratchet Ridge gold prospects, Chandalar District, Alaska.

Table 1 Selected analytical results from chip-channel samples collected at the Aurora, Aurora-North, and Ratchet Ridge gold prospects, Chandalar district, Alaska; for locations see figure 5; UTM location data in Appendix I; analytical data from ALS Chemex Labs (see Appendix II)

Sample #	*Au (g/t)*	*Ag (g/t)*	*As (ppm)*	*Sb (ppm)*	*Sample Description*
4526	ND	ND	23	ND	North 50° east, dipping 18 northwest, gash vein system 40 cm thick in FeOx alteration zone; Aurora Prospect
4527	ND	0.4	14	2	North 50° east striking, vertically dipping fractures; some float collected; Aurora
4528	0.030	0.5	324	5	North 35° west striking vertically dipping fractures; 3 meter chip-channel; Aurora
4529	ND	ND	39	ND	Locally abundant quartz vein float in greenstone/black schist rubble; 3 meters; Aurora
4536	0.024	ND	15	ND	Cross-cutting quartz veinlets in meta-turbidite schist; no orientation measurements, 10 meter chip-channel; Aurora Gulch
4537	1.400	0.4	1,055	2	Cross-cutting quartz veinlets parallel to NW joints; 10 meter chip-channel; Aurora Gulch
4538	0.169	0.3	114	ND	Cross-cutting quartz veinlets parallel to NW joints; white leachate; 10 meters; Aurora
4539	0.153	ND	121	ND	Crosscutting veinlets 30 m north of 4538; 10 meter chip channel; Aurora Gulch
4540	0.007	ND	12	ND	Crosscutting veinlets north of 4539; 10 meter chip channel; Aurora; end of sample line.
4541	0.081	ND	411	2	At 'Barker' sample pit; cross cutting quartz veins with strong FeOx alteration in schist
4542	0.040	ND	82	6	Crosscutting veinlets 3-10 cm thick veinlets; 10 meter chip channel; Aurora Gulch
4643	0.765	ND	>10,000	8	Strong alteration zone in Mikado Phyllite; shattered quartz with white leachate and FeOx alteration; 3 meter chip channel sample; Ratchet Ridge prospect
4670	0.005	0.2	86	ND	North 68-70° west, steeply dipping SW quartz veinlets in joints; Ratchet Ridge; 3 meters
4671	ND	ND	ND	ND	Eight north 60-70° west, quartz in joints; in Mikado Phyllite; 6 meter chip; Ratchet Ridge
4672	ND	ND	3	3	North 60-70° west, vertical joints in-filled with quartz; 3 meter chip; Ratchet Ridge
4676	0.007	0.3	35	ND	Quartz veinlets in slump block with white leachate; no measurements Ratchet Ridge
4692	ND	ND	8	ND	160 meters from Summit vein, white leachate, thin NW quartz veins; Ratchet or Summit
4693	ND	ND	ND	ND	North 73° west steep joints with strong FeOx and quartz veins; Ratchet Ridge
4694	0.013	ND	17	ND	Arsenopyrite and pyrite disseminations in hematite alteration zone; Ratchet Ridge
4695	0.113	0.3	449	ND	North 65-70° west, vertically dipping quartz veinlets; 10 meter chip; North Aurora
4696	ND	0.2	11	3	North 65-72° west, 70° southwest dipping veinlets; 6 sampled; North Aurora
4700	0.322	ND	2,100	ND	Three North 70-80° west, steeply dipping quartz veinlets; 3 meter chip; Ratchet Ridge
4701	ND	ND	7	ND	North 65° west, steep quartz veins in Mikado Phyllite; 50 cm chip; Ratchet Ridge
4702	0.639	0.2	1,330	2	North 55-62° west, steep southwest dip; 3 meter chip in Mikado Phyllite Ratchet Ridge

ND='Not Detected' or 'Below Limits of Detection'

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A zone of distinctive, joint-controlled quartz veinlets occur about 350 meters north of the *Aurora Gulch* prospect, referred to in this report as the *Aurora-North* occurrence (figures 9, 11). The quartz veinlets, which are accompanied by sericite and FeOx oxidation, strike north 65-72^o west (112-115^o), and dip either vertically or steeply to the southwest. These joint-controlled veinlets occupy a transitional structural area between the Little Squaw/Crystal vein fault system on the south and the Pioneer fault structure on the north (see sheet 1; figure 2). Veinlet spacing ranges from one per 30 centimeters to one per 2.5 meters. Two veinlet concentrations from the *Aurora-North* occurrence were tested with large chip-samples traverses. Sample #4695, which tested 10 such veins (and wall rock) within an 18 meter wide zone, contained 0.113 grams/tonne gold, 0.30 grams/tonne silver, and 449 ppm arsenic (table 1). Sample # 4696, which tested an additional seven (7) veins over a width of about 8 meters, contained 0.2 grams/tonne silver, 9 ppm arsenic, but no detectable gold.

During 2007, PRGCI investigated the *Ratchet Ridge* mineralizing system that LSGMC briefly drill-tested during 2006. Mineralization at Ratchet Ridge is a gold-arsenic-bearing, disseminated, veinlet-stock work zone hosted in shears and fractures cutting the fissle, *Mikado Phyllite* (unit Dup on sheet 1; see figure 9). The Ratchet Ridge mineralization occupies a transitional position north of the hanging wall of the Summit vein-fault gold-arsenic deposit on the south and the Eneveloe gold-arsenic system to the north. The mining road that zig-zags it's way to the summit divide between Big Creek on the south and Little Squaw Creek to the north cuts through the Ratchet Ridge prospect area. Hence road cuts offer opportunities to investigate the mineralized zones. Mineralization as observed always consists of quartz-sulfide veinlets along joints that strike north 68-80^o west and dip steeply southwest. Some disseminated arsenopyrite grains were noted in several veinlet exposures along the road cuts.

During investigations at the Ratchet Ridge prospect, PRGCI identified very distinctive, diffuse areas of 'white leachate' mineralization in several of the sample intervals, which has been identified during microprobe analysis by Cannon Microprobe (Appendix III) as various combinations of gypsum ($CaSO_4$ $2H_2O$), alunogen ($Al_2(SO_4)$ $18H_2O$), and epsomite ($MgSO_4$ $7H_2O$). These alteration minerals are interpreted to be manifestation of moderate temperature hydrothermal alteration of the host rocks during emplacement of silica-sulfide mineralizing solutions (figure 13). Some of gypsum alteration was also noted at the Aurora Prospect described above, but not to the extent that it was observed at Ratchet Ridge.

Reddish hematite alteration was identified in the Ratchet Ridge area. Talus covers more than 60 percent of the Ratchet Ridge prospect area; however, we were able to trace the source of the hematite-bearing schist to a relatively thin, nearly horizontal, 3-meter-thick layer of fissle schist in a headwall portion of north-facing slope just north of the summit. This thin 'source bed' is responsible for much of the magnetic, reddish schist talus that is apparent in the upper bowl of Little Squaw Creek above the recent cirque headwall.

Ten (10) chip-channel samples of the veinlet mineralization were collected along various portions of the Ratchet Ridge prospect over a total strike length of approximately 650 meters. Sample width varied from 50 centimeters to 6 meters, and depending on the extent of the veinlet zones. Values ranged from non-detectable-to-0.765 grams/tonne gold (average=0.175 grams/tonne gold), up to 10,000 ppm arsenic (average=1,357 ppm arsenic), and intermittent silver and antimony values. Five of the samples did not contain detectable gold so this area was not as consistent in elevated gold values as the Aurora Gulch area previously described. The conspicuous appearance of gold values with large areas of 'white leachate' alteration suggests that recognition of these altered areas might provide guides for further prospecting.

Chip-channel sampling at the Aurora Gulch and Ratchet Ridge prospects yielded no high grade and only low gold values. The only way to ascertain what average gold grade can be carried over a significant width, strike length, and depth would be the deployment of a diamond drill program.

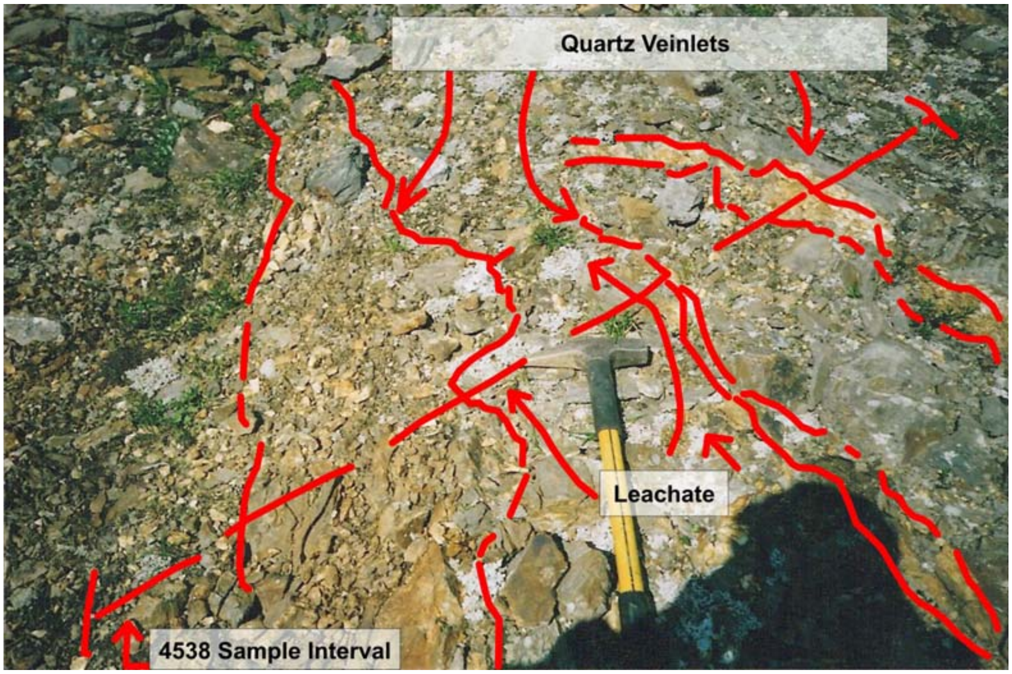

Figure 10 Illustration of stockwork veinlet mineralization @ Station #4538, Aurora gold prospect, Chandalar District; which yielded 0.169 grams/tonne gold, 0.3 grams/tonne silver, and 114 ppm arsenic.

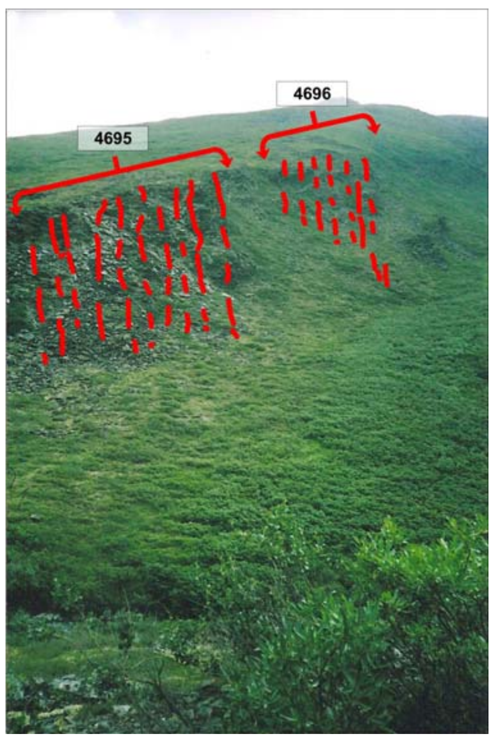

Figure 11 Location of stockwork veinlet concentrations at the Aurora-North gold-arsenic occurrence, Chandalar district, Alaska. Sample # 4695 contained 0.113 grams/tonne gold, 0.30 grams/tonne silver, and 449 ppm arsenic. Sample #4696 did not contain gold.

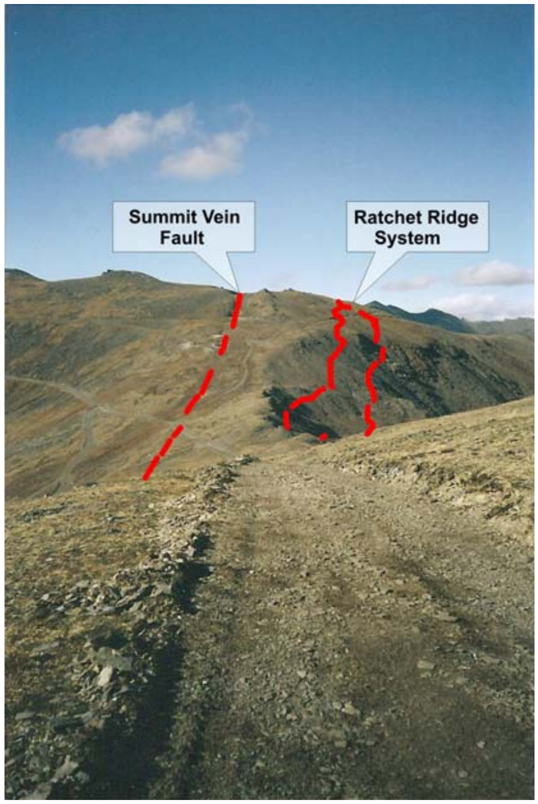

Figure 12 Location of the Ratchet Ridge gold prospect in relation to the fault trace of the Summit gold mine, Chandalar district, Alaska; photo is looking approximately north 70^{o} west.

Figure 13 Outcrop in cirque headwall of Little Squaw Creek Basin on eastern extension of the Ratchet Ridge gold-arsenic occurrence @ station 07BT180 (sample #4643) contains abundant whitish "leachate" identified here as the magnesium sulfate epsomite. Three meter chip-channel sample #4643, which samples veinlet mineralization at base of outcrop, contains 0.765 grams/tonne gold and 10,000 ppm (1%) arsenic.

Mikado Vein-Fault System

The Mikado lode has been the most important mesothermal gold-quartz deposit discovered and developed in the Chandalar mining district. Maddren (1913) first described gold mineralization in the 'Mikado Shear Zone', which by then had been explored with about 3,000 feet (914 m) of trenches and a 104 foot (32 m) deep vertical shaft. Exploration and development occurred throughout the years and by 1968, about 30,000 tons of measured and indicated reserves reportedly averaging 2.5 oz/ton (85.2 grams/tonne) gold was estimated by Birch (1968) from underground and surface exploration sample control. By 1982, various operators, mainly Chandalar Development Corporation (CDC), had recovered 7,692 ounces gold from 10,418 tons of ore at an average recoverable grade of 0.73 oz/ton (24.9 g/t) gold. Proven, probable, and possible resources as summarized by Barker and Bundtzen (2004) amount to 8,925 tons of ore of undetermined grade, but likely similar to what had been previously exploited. All of the resource estimates have been sourced from main deposit developed near the head of Tobin Creek. More detailed information can be obtained from Barker and Bundtzen (2004) and many other cited references.

Auriferous mineralization can be confidently traced from a point midway up St. Mary's Creek, a tributary of Big Creek, in a northwest direction to the divide between Tobin and Boulder Creeks, a distance of 6 kilometers (4 miles). Erratically distributed, gold values occur in discontinuous zones within the 25-65 meter wide, Mikado Shear Zone. This erratic distribution of gold has hindered past evaluations and development of the deposit. The design and purpose of the investigations conducted by PRGCI during 2007 was to complete detailed prospect maps in key areas and obtain both structural and geochemical data in order to explore for new lode gold deposits within the Mikado Shear Zone through a drill-testing program in 2008. Three areas were selected for detailed examination: 1) the main Mikado open pit area that was mined with both open cut and underground operations; 2) the trenched zones extending from the pit southeastward to the divide area separating upper Tobin Creek from St. Mary's Creek; and 3) an extension of the Mikado Shear on Lower Tobin Creek just above the Tobin Creek mill—referred to in this investigation as the 'Mikado Northwest Extension'. Figures 14, 17, and 20 illustrate the geology and sample locations from the Mikado Pit the southeast extension, and Mikado Northwest Extension areas. Table 2 summarizes analytical results.

The ***Main Mikado Pit*** is the area is where CDC exposed the 100 foot level of the Mikado mine during1982 production activities. Since this area contains some of the best exposed mineralization in the Chandalar Mining District as well as the site of most of the district's commercial gold production, PRGC judged it was useful to examine the 'Mikado Pit' in detail (figure 14). The pit contains an exposure of the face of the main Mikado vein exploited from 1979 to 1982, a footwall of hematite altered phyllitic schist mapped as part of the Mikado Phyllite; classic dark gray, highly micaceous Mikado Phyllite hanging wall overlain by more siliceous meta-turbidite schist (unit Dut), and both subsidiary and stockwork veinlet zones in the hanging wall. Seventeen (17) chip channel and grab samples were collected in the main pit area of mineralized veins, alteration, and rock types. Although values of up to 68.2 grams/tonne (2.19 oz/ton) gold and 18.10 percent arsenic were obtained, the chip-channel sample localities shown in figure 14 and summarized in table 2 were primarily collected to help reveal more about what specific structural zones or alteration areas are carrying gold.

The major vein-fault arsenopyrite-quartz lode that was exploited in past years strikes north 68-75^o west (105-112^o) and dips practically vertically in the confines of the pit. There is also a distinct concentration of thinner quartz-sulfide veinlets about 20 meters to the northwest of and roughly parallel to the main vein-fault, that we have referred to as the 'North Vein' after terminology adapted by private company reports that mention an auriferous vein in this position. There are other features important to localization of ore shoots, including: 1) gold-bearing east-west to north 70^o east (070-090^o) striking, steeply dipping veins that intersect the northwest dominant main trunk mineralized veins at an angle of about 35^o (see sample stations 4660, 4661, 4662, figure 14, table 2) ; and 2) the distinctive 'white leachate' alteration, identified as epsomite and gypsum. The epsomite and gypsum zones, which were noted and mapped in four separate locations, also appear locally to contain elevated gold values (sample sites #4645, #4677, #4678, figure 14, table 2), although in some areas, there is no gold values associated with the alteration. The results of the structural mapping and sampling also show that there are subsidiary veinlet splays and veins transverse to the main northwest that carry gold.

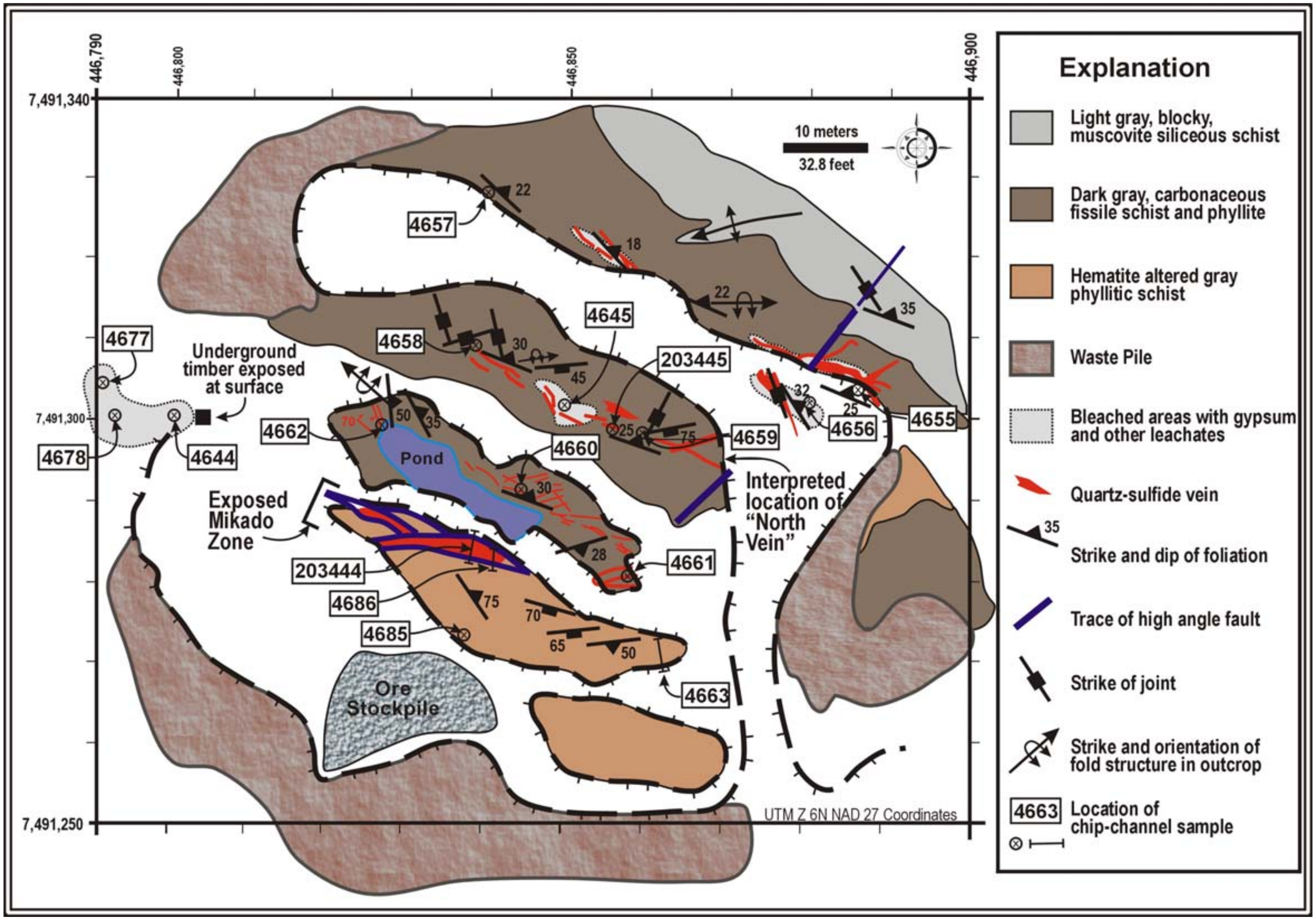

Figure 14 Geologic sketch map showing of Mikado Shear Zone in 1982 pit area, showing hosts rock lithologies, structural data, and chip-channel sample sites.

Table 2 Selected analytical results from chip-channel samples collected at the Mikado Pit, Mikado Southeast, and Mikado Northwest Prospect Areas, Chandalar district, Alaska; for locations see figures 14, 17, and 20; UTM location data in Appendix I; analytical data from ALS Chemex Labs (see Appendix II)

Sample #	*Au (g/t)*	*Ag (g/t)*	*As (ppm)*	*Sb (ppm)*	*Sample Description*
4543	0.01	ND	14	ND	Mikado Northwest; thin, red-orange quartz veinlets in Mikado Phyllite; 2 meter channel
4544	ND	ND	15	ND	Mikado Northwest; thin FeOx + quartz veinlets in Mikado Phyllite; 2 meter channel
4545	0.005	0.3	10	ND	Mikado Northwest; main Mikado quartz vein cutting Mikado Phyllite; 2 meter channel
4546	ND	ND	9	ND	Mikado Northwest; main Mikado quartz vein cutting Mikado Phyllite; 3 meter channel
4547	ND	0.2	15	ND	Mikado Northwest; thin quartz veinlets with 1% pyrite; in Mikado Phyllite 3 meter chip
4548	ND	ND	ND	ND	Mikado Northwest; thin quartz vein with 15% siderite; in Mikado Phyllite 30 cm chip
4575	0.005	ND	170	ND	Mikado Northwest; north 74^{o} west, vertical dipping trend of quartz breccia 1 meter thick
4576	0.007	0.3	35	ND	Mikado Northwest; north 65^{o} west vertical dipping Mikado blow-out vein; 2 meter chip; 7 grains of gold panned at this site.
4579	ND	0.2	41	ND	Mikado Northwest; north 78^{o} west; 78^{o} southwest dipping veinlet zone
4580	0.029	ND	165	ND	Mikado Northwest; 80 cm chip-channel across ‘North Vein; north 62^{o} west 85^{o} northeast dip; disseminated arsenopyrite along slickenside vein border.
4581	0.009	ND	17	2	Mikado Northwest; grab sample of western limit of quartz vein rubble train area
4582	ND	ND	2	ND	Mikado Northwest; quart vein rubble in meta-turbidite schist.
4583	0.008	0.2	43	ND	Mikado Northwest; thin quartz veinlets along fractures north 70^{o} west 85^{o} southeast dips
4584	0.032	0.5	628	3	Mikado Northwest; strong north 80^{o} west 80^{o} northeast dip fracture zone with veinlets; 4 meters wide chip channel
203446	8.610	1.7	116,500	190	Mikado Northwest; grab sample of 25 cm thick, sulfide rich pod in main Mikado vein exposure in trench; arsenopyrite about 8 % by volume.
4644	0.010	ND	68	2	Mikado Pit; white leachate alteration sample in main Mikado pit; in Mikado Phyllite
4645	0.453	0.2	423	3	Mikado Pit; white leachate alteration 30 meters north of main Mikado vein in ‘North Vein’ zone; extensive hematite alteration of Mikado Phyllite here.
4655	ND	0.2	4	ND	Mikado Pit; northern-most veinlet zone in pit area; white leachate alteration identified.
4656	ND	ND	18	2	Mikado Pit; abundant white leachate alteration cuts Mikado Phyllite along north 30^{o} east vertical joints—no veins here—just alteration sampled.
4657	0.005	0.2	13	ND	Mikado Pit; thin FeOx-quartz veinlets in limonit alteration area; some white leachate
4658	0.035	ND	76	2	Mikado Pit; ferricrte-quartz gash veins strike north 40^{o} west vertical; 2 veins/meter; 2 meter chip channel
4659	3.480	ND	1,870	3	Mikado Pit; several northwest-striking, 4 cm thick gash veins in ‘North Vein’ zone; 2 meter chip channel.

ND=’Not Detected’ or ‘Below Limits of Detection’

Table 2 CONTINUED--Selected analytical results from chip-channel samples collected at the Mikado Pit, Mikado Southeast, and Mikado Northwest Prospect Areas, Chandalar district, Alaska; for locations see figures 14 and 17; UTM location data in Appendix I; analytical data from ALS Chemex Labs (see Appendix II)

Sample #	*Au (g/t*	*Ag (g/t)*	*As (ppm)*	*Sb (ppm)*	*Sample Description*
4660	0.154	0.7	323	7	Mikado Pit; north 86^{o} east striking, 50^{o} southeast dipping veins in hanging wall, main Mikado system.
4661	0.034	ND	507	6	Mikado Pit; north 70^{o} east striking, steeply dipping, quartz veinlets in hanging wall of Mikado vein system
4662	0.146	0.2	3,850	4	Mikado Pit; isoclinally folded, northwest striking gash veins; 3 meter chip channel
4663	0.119	ND	58	ND	Mikado Pit; east-west striking, steeply dipping, quartz gash veins in hematite alteration in Mikado Phyllite footwall of main Mikado vein deposit; 2 meter chip channel
4677	7.770	0.4	4,450	6	Mikado Pit; ‘white leachate’ and quartz-arsenopyrite vein material, west end Mikado Pit
4678	15.450	2.7	4,170	28	Mikado Pit; ‘white leachate’ and quartz-arsenopyrite vein material, west end Mikado Pit
203445	2.730	0.7	>10,000	NA	Mikado Pit; from north vein zone near 4659; pod of sulfide in wall; 1 meter chip channel
203444	68.200	8.2	180,000	8,700	Mikado Pit; from main Mikado vein exposure in pit area; 1.5 meter chip channel
4685	0.010	2.3	16	2	Mikado Pit; hematite alteration area on footwall of Mikado zone; 1 meter chip channel
4686	4.450	7.2	8,730	15	Mikado Pit; from main Mikado vein exposure in pit area; 1.5 meter chip channel; near #203444
4646	ND	ND	29	ND	Mikado-Southeast; ‘white leachate’ in road cut at St. Marys Pass grab sample only; in Mikado structural zone.
4664	1.895	0.3	8,480	6	Mikado-Southeast; north 10^{o} east striking, 40^{o} southeast dipping joints infilled with sulfide-quartz veins up to 50 cm thick; 3 meter chip channel.
4665	3.380	0.7	>10,000	17	Mikado-Southeast; north 25-35^{o} east striking, southeast dipping joints host mineralized quartz-sulfide veins up to 1 meter thick; 2 meter channel, arsenopyrite in hanging wall.
4666	0.023	ND	565	ND	Mikado-Southeast; north 45^{o} east striking, 47^{o} southeast dipping vein about 75 cm thick; with siderite, ‘white leachate’ and hematite in hanging wall Mikado Phyllite
4667	0.115	ND	1,330	ND	Mikado-Southeast; thickest (110 cm), north 52^{o} east striking, 50^{o} southeast dipping quartz vein with arsenopyrite in hanging wall Mikado Phyllite
4668	2.430	0.4	>10,000	118	Mikado-Southeast; quartz-scorodite-arsenopyrite zone in rubble trends north 70^{o} west
4687	0.017	0.7	38	3	Mikado-Southeast; altered sulfides in schist only schist sampled-no quartz here
4688	0.114	0.2	241	2	Mikado-Southeast; ‘white leachate’-rich zone in Mikado structure; some small cavities with quartz crystals and sulfides; quartz parallel to bedding.

ND=’Not Detected’ or ‘Below Limits of Detection’

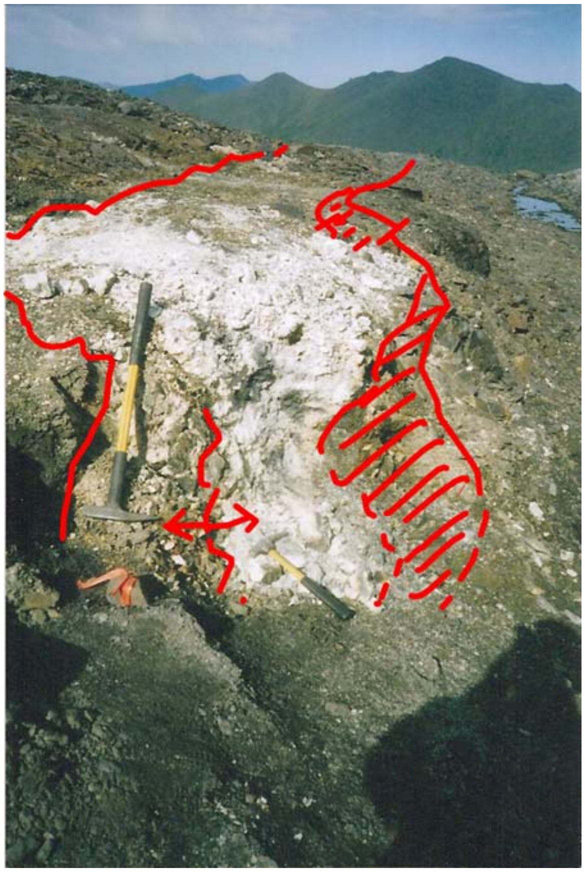

Figure 15 Exposure of main Mikado Vein in 100 foot level of pit at channel sample site #203444 (see table 2), contained 68.2 g/t (2.19oz/t) gold; illustrating complicated structural deformation and textural variances and contrasts between hanging and footwalls; looking to the northwest.

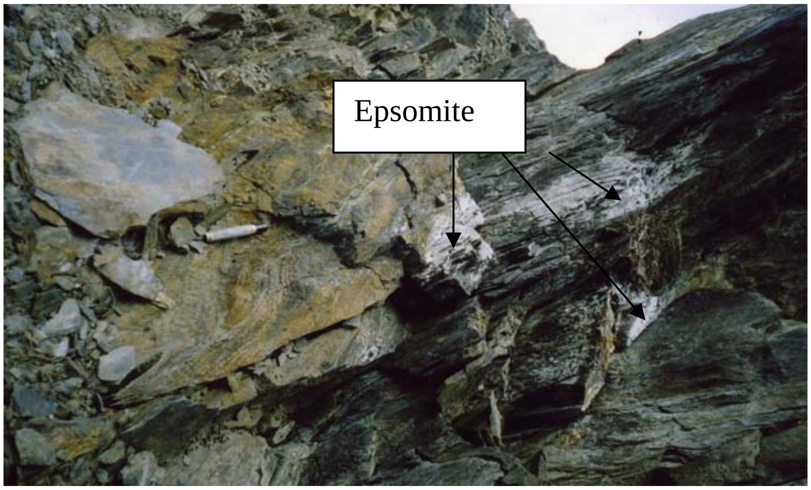

Figure 16 White leachate—variety magnesium sulfate or epsomite, along NW joints and in foliation near hanging wall North Vein of Mikado system near sample site #4645, which contained 0.453 grams/tonne gold and 423 ppm arsenic.

The *Mikado Northwest Zone* occurs on the north side of a prominent saddle about 600 meters northeast of the Tobin Creek mill and about 2.5 kilometers northwest of the Mikado Pit previously described. The saddle is, in fact, the projection of the Mikado high angle fault system. A series of trenches and open cuts have opened up bedrock exposures and a vein-fault system that is remarkably similar to the exposures observed in the Mikado pit illustrated in figure 14.

A footwall consisting of fissle, micaceous schist, the Mikado Phyllite, locally hematite-altered, is overlain by more siliceous meta-turbidite schist. A strong ‘Main Vein’ quartz zone about a meter wide strikes north 72^o west (108^o) and dips 65^o north to vertical and shows evidence of multiple shearing and post deformational movement after emplacement.. About 13 meters to the northwest of and parallel to the Main Vein zone is a smaller but equally persistent ‘North Vein’. The most recent fault movement on the ‘North Vein’ is indicated by slickenside oriented north 55^o west (125^o) and plunging about 45^o northwest (figure 18). There are also smaller quartz veinlet zones in between the two most significant veins. Generally absent, however, are significant concentrations of sulfides in the veins, as well as much weaker ‘white leachate’ alteration. The characteristics of the Mikado-Northwest zone resemble the Mikado Shear zone in the mine pit area to the southeast.

PRGCI took fifteen (15) chip-channel and grab samples of quartz vein mineralization, disseminated veinlet zones, hematite and ‘white leachate’ altered areas, and rock types to determine how and where gold mineralization might occur. The results summarized in table 2 are disappointing. Although one grab sample of a sulfide pod contained 8.61 grams/tonne gold and 11.65 percent arsenic, the nine remaining samples contained only weak gold-arsenic mineralization reaching 0.032 grams/tonne gold and 628 ppm arsenic, while six samples did not contain any detectable gold or arsenic. We note that quartz vein materials panned from site #4576, which yielded only trace amounts of gold during fire assay analysis, yielded 7 small grains of gold and a small sulfide concentration of arsenopyrite from a panned, vein materials collected and processed by the writer (see appendix I). This result suggests that significant gold does exist in the Mikado-Northwest vein-fault system. Perhaps more and larger samples should be collected in future evaluations of the Mikado-Northwest zone.

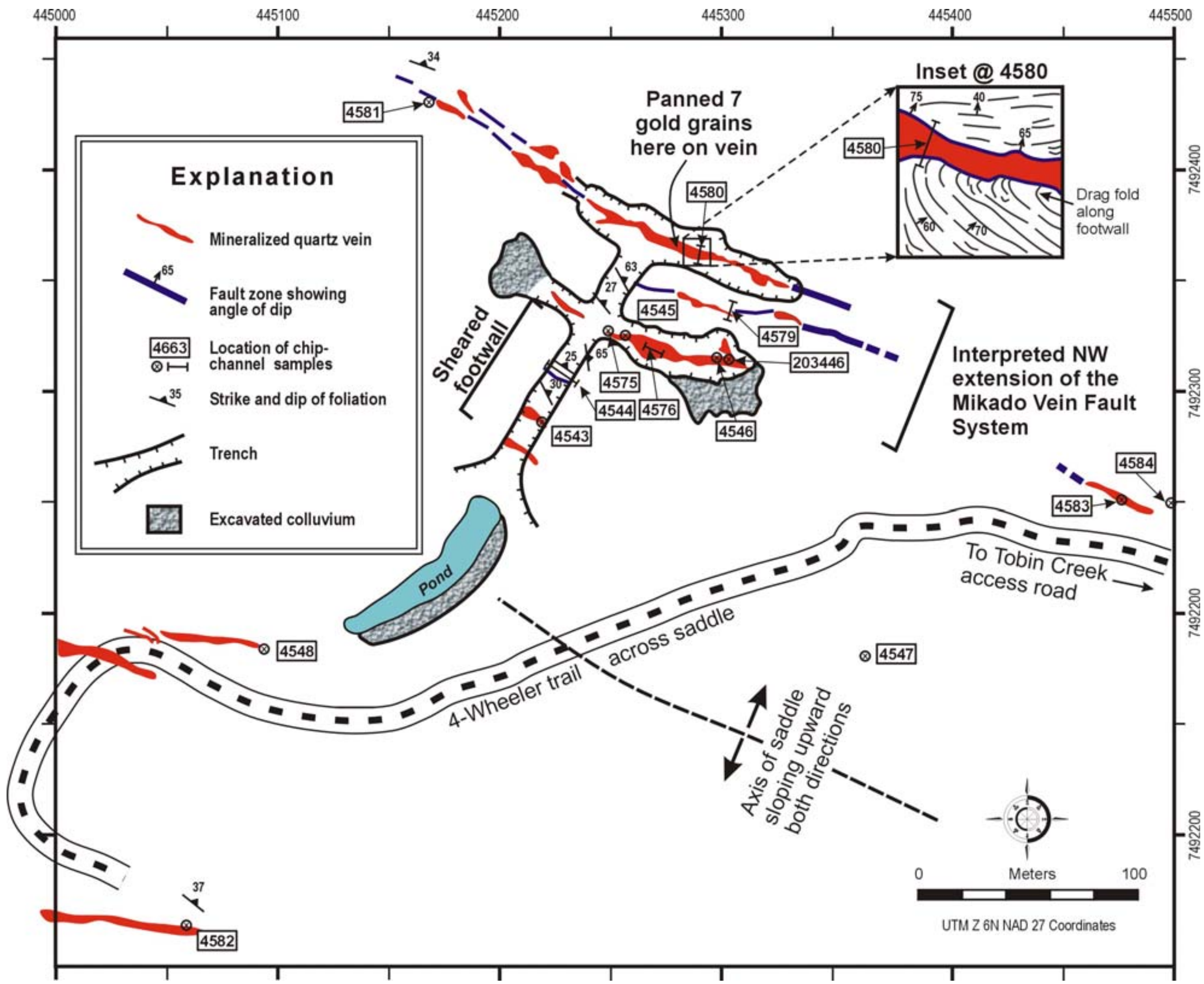

Figure 17 Geologic Sketch of the Mikado-Northwest prospect showing locations of chip-channel samples, structural data, and rock types in hanging and footwall zones; sketch by writer, 07/08/07.

Figure 18 Slickensides oriented north 55° west and plunging about 45° northwest in footwall zone of 'North Vein', Mikado-Northwest prospect area.

The Mikado Southeast prospect area is illustrated in figure 19 with selected analytical results from eight (8) chip sample samples provided in table 2. This is an area where several generations of trenching by several private concerns have exposed the Mikado Vein-Fault system from the Mikado Mine southeastward to the pass between Tobin and St. Marys Creeks. Specifically, we examined Trenches E-2, E-3, E-4, E-5, and E-7. Because our work was completed prior to LSGMC's 2007 trenching efforts in the area, we did not have access to that information. The quartz-sulfide vein-fault deposits within the Mikado Shear Zone as exposed in the trenches are hosted mainly in the Mikado Phyllite (unit Dup),

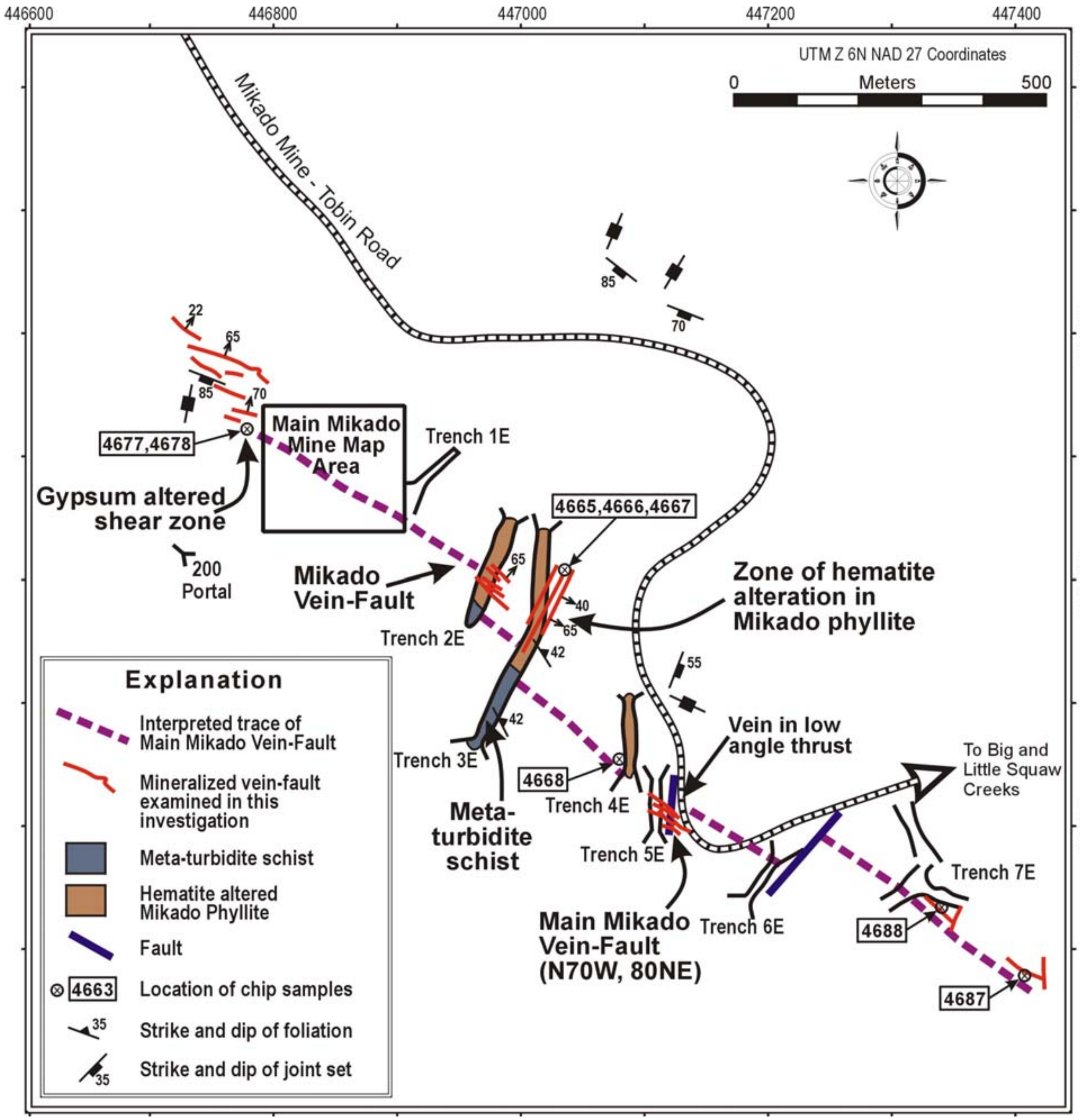

Figure 19 Highly simplified sketch map showing structural measurements and chip-channel sample locations in Trenches 2E, 3E, 4E, 5E, and 7E, Southeast of Main Mikado Pit Area depicted in Figure 14; sketch by writer, 07/10/07.

but some are also hosted more siliceous meta-turbidite schist (unit Dum) exposed structurally below the Mikado Phyllite. Based in field measurements in four trenches—E-2, E-3, E-4, and E-5, the zone of shearing ranges in width from 25 to 65 meters and averages about 40 meters in width.

Examination of the Mikado Vein-Fault and shear zone in the trenches southeast of the min Mikado Mine and Pit area revealed several significant features. The main Mikado Vein-Fault system generally strikes north 55-75^o west (105-125^o) and dips vertically, but because trench exposures of the vein-fault are not in simple alignment, we interpret that there are small, offsets by northeast-striking structures of the main northwest-striking vein-fault zone. Without more exposures, this is only an interpretation.

Several prominent, northeast striking, moderately dipping quartz-sulfide veins that cut the Mikado phyllite in Trench E-3 contain significant gold values over a total width of about 15 meters. Four chip channel samples sites (#4664-4667, figure 19; table 2) tested these veins, which contain from 0.023 grams/tonne gold to 3.38 grams/tonne gold and average 1.35 grams/tonne gold over about 7.0 meters of vein width. Arsenopyrite conspicuously occurs in the hanging wall of each vein system sampled (figure 20). All of the veins strike north 10-52^o east (010-052^o), dip variably 45^o-steeply southeast and, like in the northeast structures observed in the Mikado pit area, intersect the northwest striking shear zone at about 35 degrees.

A number of shears sub-parallel to foliation in trenches E-4, E-5, and E-8 are auriferous (sample #4668, 4688; figure 21, table 2). There is leakage along sub-horizontal fractures that contain multi-gram gold values. Finally, Trenches E-7 and E-8 in upper St. Mary’s Creek contain sulfide bearing schist and fractures parallel to bedding that are weakly mineralized. ‘White leachate’ alteration is conspicuously present in trench E-5 and in the saddle area cut by the road, where it both coats schist fragments and appears in fractures cutting schist. A sample of this alteration (#4646) was probed and contained alunogen ($Al_2(SO_4)$; no gold or other metals were detected (table 2).

All of these observations indicate that the Mikado shear zone, which may average 40 meters in width for 1.5 kilometers, contains a variety of gold-bearing structures. The intersection of northeast and northwest, gold-bearing structural elements in the Mikado-Southeast prospect area should be drill-tested by LSGMC.

Figure 20 North 10^o east striking, 40^o southeast dipping veins at sample site #4665 in Trench E-3 southeast of Mikado Mine yielded 3.38 grams/tonne gold, 0.7 grams/tonne silver, and >10,000 ppm arsenic. Black line shows where sample was taken over 2 meter interval.

Figure 21 Sulfide-Quartz-filled fracture sub-parallel to foliation in Trench E-4 near Tobin Road Summit; a 75 cm chip channel from the site near the hammer yielded 2.43 grams/tonne gold, 0.4 grams/tonne silver and >10,000 ppm arsenic.

The Indicate-Tonopah Vein-Fault System

The Indicate-Tonopah prospect, also known as the American Eagle or Newton prospect, occurs in Upper Big Creek valley at an approximate elevation of 3,700 feet (figure 2). In 1909, a two stamp mill was brought in to process quartz from the Indicate-Tonopah and other nearby quartz zones. Gold recovery from the mill was supposed have been low (30%) and this project was eventually abandoned. Remains of the mill are still visible (see figure 23). This same structure is referred to in a 1958 photograph as the 'Toussaint Mill' by Barker and Bundtzen (2004, page 146). The mill looked to be in good shape at that time. According to the late Ernst Wolff (pers. communication with writer, 2004), the mill operated intermittently as a small gold producer through the early years of statehood, although production totals, although not documented, are believed to be modest.

Reed (1930) described a 40 foot-deep shaft on Big Creek that exposed the wide Indicate-Tonopah vein on bedrock. That same area is exposed in a mine cut opened up during the last few years and shown in the Big Creek mine cut depicted in figure 22. The reader is referred to figures 22-25 and table 3 during the following discussion.

The Indicate-Tonopah vein-fault system is exposed in a recent mine cut on Big Creek, in two trenches west of Big Creek, in a trench exposed next to the upper Big Creek airstrip southeast of Big Creek, and finally in slumped trenches on west-facing slopes further to the southeast of the Airstrip.

The Indicate-Tonopah prospect contains a main vein-fault and shear zone flanked by a high angle, quartz veinlet concentration 15-25 meters to the north and parallel to the main vein, which we have referred to as the 'North Vein Zone'. Both vein systems and other subsidiary splays strike north 65-to-80^{o} west (100-115^{o}) and dip steeply southwest. Host rocks at the main Big Creek mine cut and in trenches to the west are dark-to-black, fissle schist that could be interpreted to be the Mikado Phyllite although it is not mapped as that on our regional map (sheet 1). Hematite alteration occurs in the footwall and small patches of 'white leachate' alteration types were also identified.

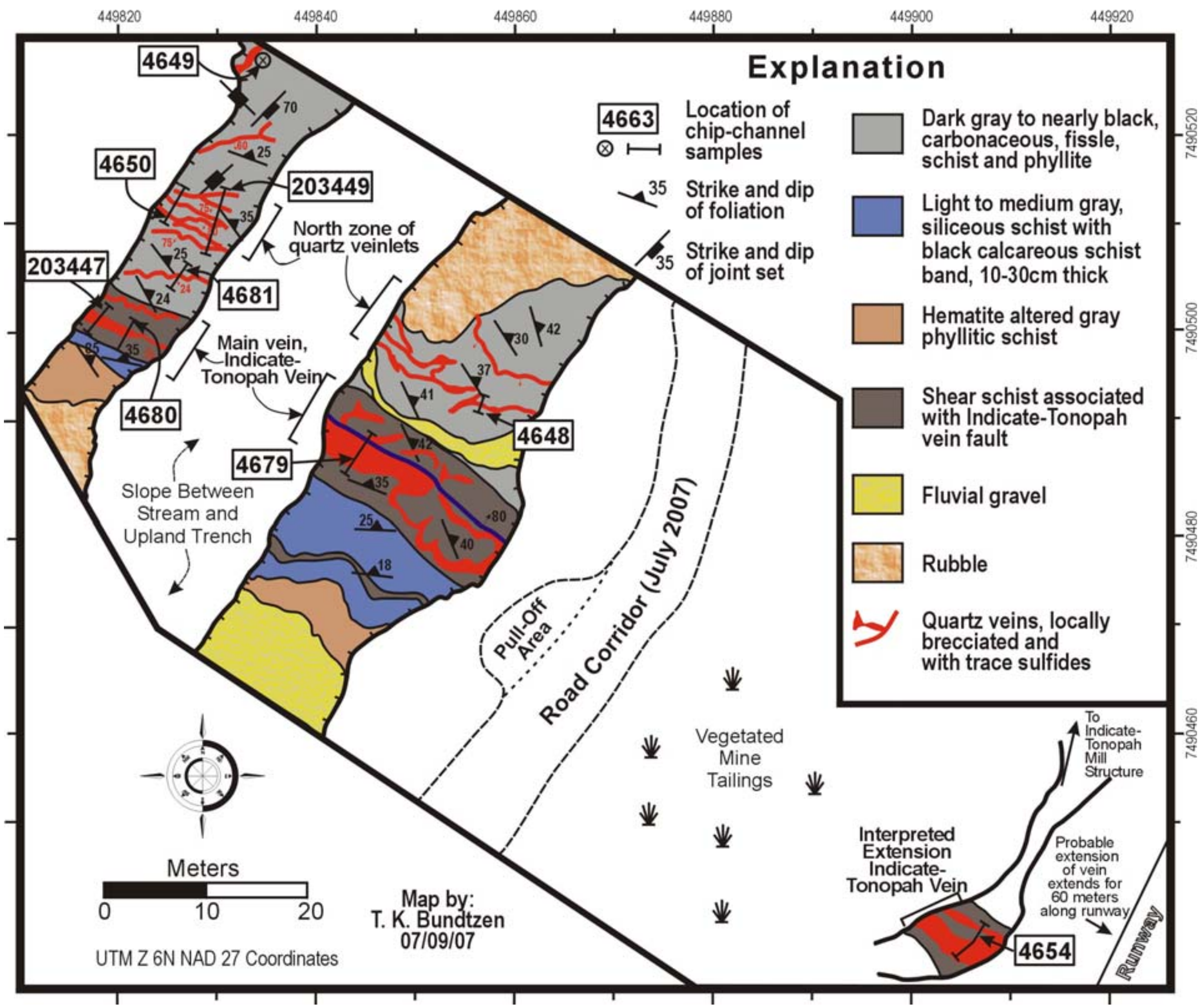

Figure 22 Sketch map of Indicate-Tonopah Gold-Bearing, Vein-Fault System Showing Structural Features and Locations of Chip-Channel Samples.

Table 3 Selected analytical results from chip-channel samples collected at the Indicate-Tonopah Prospect Area, Chandalar district, Alaska; for locations see figure 22; UTM location data in Appendix I; analytical data from ALS Chemex Labs (see Appendix II)

Sample #	*Au (g/t)*	*Ag (g/t)*	*As (ppm)*	*Sb (ppm)*	*Sample Description*
4648	0.123	0.3	754	12	Veinlet zone in Indicate-Tonopah vein; 3 meter chip-channel sample in 'North Vein Zone'.
4649	0.831	ND	123	ND	Abundant quartz veinlet zone 85 meters west of main Indicate-Tonopah; 2 meter chip-channel.
4650	3.520	1.5	670	31	Quartz veinlet zone strikes north 70-80^o west, steeply dipping southwest; 7 individual veins in 4 meter width—all sampled; interpreted to be 'North vein Zone' in Big Creek.
4651	0.018	ND	446	5	North 60^o west strike of vein rubble down hill with FeOx plus quartz; grab sample
4652	0.264	ND	145	2	Abundant quartz vein rubble (25 percent of total) trends in northwest direction from Big Creek.
4653	0.052	0.7	212	3	1.5 to 2.0 meter wide quartz vein with FeOx; strikes north 35-40^o west; in upper plate near bottom of airstrip; visible arsenopyrite grains in quartz zone thought to be 10 percent of sample in field.
203447	0.890	NA	7,810	370	1.2 meter wide, chip-channel of vein-fault mineralization @ main zone, taken 3 meters west of #4680; Indicate-Tonopah zone in trench west of Creek
203449	2.500	1.2	980	7	Grab sample of main sulfide bearing veinlet zone west of Big Creek cut, Indicate-Tonopah vein
4654	0.302	ND	928	2	North 65-70^o west striking vein—eastern extension of Indicate-Tonopah vein not on figure 22.
4679	0.350	ND	557	6	Large 5 meter wide, channel sample of Indicate-Tonopah; with black schist and FeOx with quartz; 3 grains of gold panned from material collected from channel traverse.
4680	0.075	0.3	638	9	Main vein 85 cm wide channel sampled; western extension of Indicate-Tonopah.
4681	ND	0.3	30	ND	Several gash veins each 1-2 cm wide with abundant FeOx ; part of trend sampled in sample #4650 channel.
4682	0.070	ND	378	5	FeOx-altered quartz vein southwest of Indicate-Tonopah vein system not on figure 22.
4683	0.008	ND	129	3	North 40^o west strike of vein in rubble 2 meters wide; some arsenopyrite here.

ND=Not Detected; for other metals, see Appendix II

Figure 23 Remains of Indicate-Tonopah mill as it appeared in 2007 near the head of Big Creek.

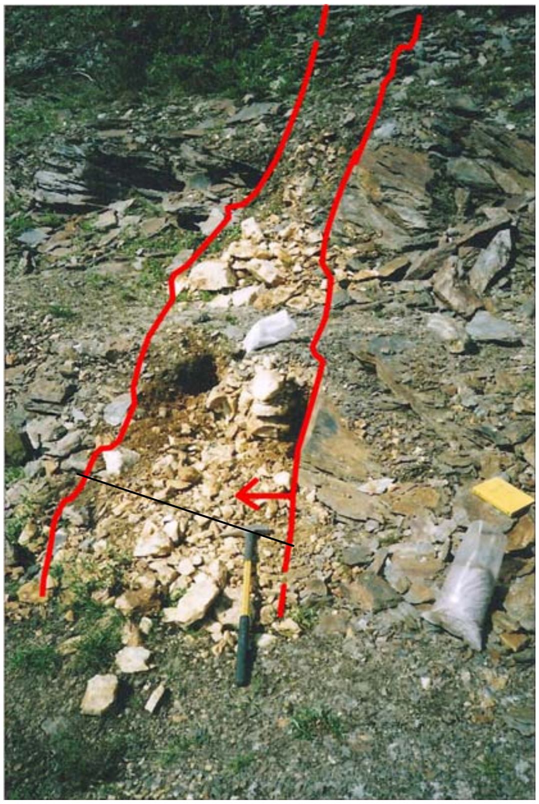

Figure 24 Indicate-Tonopah vein-fault zone west of Big Creek at sample site #4680 (table 2, figure 22); sample traverse shown with black line; red arrow indicates direction of dip of vein. Grab sample #203447 taken near #4680 contained 0.89 grams/tonne gold.

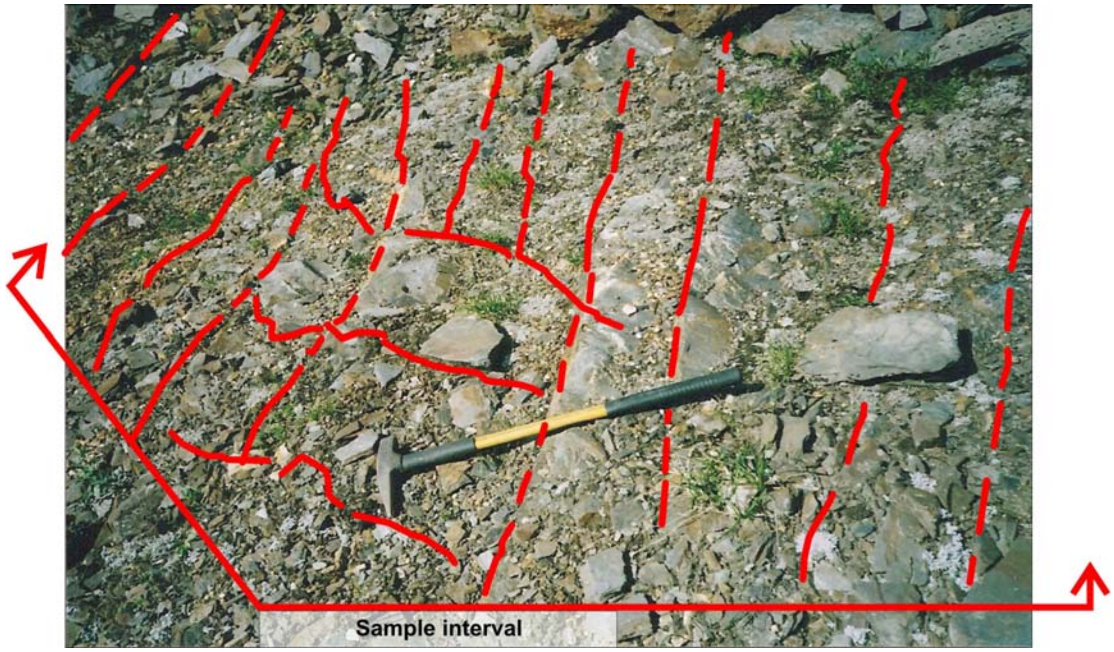

Figure 25 Chip sample site of veinlet zone in North Zone of Indicate-Tonopah Vein-Fault system; this sample site (#4650, table 3, figure 22) contained 3.52 grams/tonne gold, 1.5 grams/tonne silver, and 670 ppm arsenic. A grab sample of arsenopyrite-bearing veins from the same veinlet zone @ station #203449 assayed 2.50 g/t gold and 980 ppm arsenic.

The main vein exposures in the Big Creek mine cut is conspicuously enveloped in a 15-20 meter wide shear zone. Movement along this shear is complicated, with the latest fault actions deforming the quartz veins into individual faulted strands.

Most of the mineralization is in the form of crosscutting quartz with minor FeOx alteration. Arsenopyrite was positively identified in the trench cut near the airstrip, but sulfides are not commonly observed in any of the accessible exposures. Some siderite was identified as a gangue mineral in the main quartz vein the Big Creek mine cut.

We collected thirteen (13) chip-channel and grab samples were collected of mineralized veins, alteration, and rock types (table 3). Values of up to 3.52 grams/tonne gold and 928 ppm arsenic were obtained from zones of veinlet dissemination; i.e., 'North Veinlet Zone' west of Big Creek. The same 'North Veinlet Zone' in the Big Creek mine cut yielded 0.123 grams/tonne gold and 754 ppm arsenic. Once again, the zones of more disseminated, joint-controlled, quartz veinlet mineralization adjacent to the main vein-fault mineralization has been demonstrated to contain elevated gold values. Twelve of thirteen samples collected in the Indicate-Tonopah shear zone system contained anomalous metal values, with the average values being 0.510 grams/tonne gold and 455 ppm arsenic. On the negative side, there were no high grade gold values encountered in the main quartz vein/shear zone, where two chip-channel samples, #4679 and #4653, yielded 0.350 grams/tonne gold and 557 ppm arsenic and 0.0.052 grams/tonne and 212 ppm arsenic respectively.   One grab sample of mineralization from the main vein-fault west of the creek (#203447) collected near chip-cannel site #4680 contained 0.89 grams/tonne gold and 7,810 ppm arsenic, and 370 ppm antimony. The general absence of more massive arsenopyrite concentrations in the observed exposures of the Indicate-Tonopah system might explain the general lack of high grade ores shoots.

Although high grade mineralization was not encountered during our somewhat brief sampling efforts, the Indicate-Tonopah vein-fault and shear zone is a large system as compared to most others in the Chandalar district. The total strike length of the northwest striking, Indicate-Tonopah vein-fault amounts to nearly 500 meters, and it could be extended further with prospecting to the southeast. In the main mine cut on Big Creek and in the trenches to the west, the total shear system, as determined by the main quartz vein shear and the 'North Veinlet Zone', ranges from 15-20 meters in width.

Further west of the sketch in figure 22, the Indicate-Tonopah vein system is believed to be truncated by the northeast striking Little McLellan high angle fault on the basis of: 1) the abrupt termination of quartz float; and 2) recognition of a distinct, northeast-striking lineament that lines up with the Little McLellan structure (see figure 2; sheet 1). The resumption of Indicate-Tonopah system across the Little McLellan Fault is conjectural but believed to be the Mikado Fault system and related gold deposits. During our work both in 2006 and 2007, PRGCI observed that the Mikado Vein-fault could not be confidently traced in a southeasterly direction beyond a midway point on St. Mary's Creek at an approximate elevation of 3,600 feet (figure 26; sheet 1). In addition, the framework of the Indicate-Tonopah vein-fault system is very similar to the Mikado Shear with a quartz vein shear and a subsidiary 'North" veinlet zone parallel to the main structure.

During the remapping of the area east of Little Squaw Creek, we determined that the faulted contact between the upgraded upper plate schist (unit Dus) and units Dum and Dut (also upper plate) are right-laterally offset along the northeasterly Little McLellan Fault by about 350 meters. If the Indicate-Tonopah vein-fault structure is the offset

Figure 26 Exposure of the Mikado structure on St. Mary's Creek at an elevation of 3,600 feet, the southeastern-most part of the Mikado system that could be comfortably traced in that direction--as observed during 2006 investigations.

continuation of the Mikado fault, then the apparent right lateral slip along the Little McLellan fault is about 700 meters, which is similar but not identical to the offset solution calculated from the above geologic mapping discussion.(see sheet 1).   We note that previous workers, including Barker and Bundtzen (2004) and Barker (2006) have shown the Indicate-Tonopah vein-fault as being a southeastern extension of the Star and Kiska Group. More work in the form of detailed geophysics, mapping, and sampling might help determine whether or not our hypothetical, offset solution is strengthened or refuted.

Other Prospects Investigated by PRGCI

Although our abbreviated schedule forced our emphasis on the aforementioned gold-bearing, vein-fault prospects, we did briefly examine others. The Summit mine was developed as a high grade, quartz-sulfide, vein-fault deposit on the ridge west of the Little Squaw Creek-Big Creek Divide at an elevation of nearly 5,000 feet, hence the name. Mineralization is developed along the Summit Fault, which strikes north 70-80^{o} west (100-110^{o}) and dips steeply to the north. According to Maddren (1913), two levels of underground workings at the 100 and 200 foot levels and a short, 54 foot deep shaft have explored and developed the deposit. In 1981, CDC recovered about 1,808 ounces gold from about 1,401 tons of ore, mostly mined from the 100 foot level, at an average recoverable grade of 1.29 oz/ton (43.9 grams/tonne) gold. Gold values tend to be spotty and the vein along strike does not always carry high grade concentrations (Barker and Bundtzen, 2004).

We examined the face of mineralization on the 100 foot level of Summit mine (figure 27). A vein about 750 centimeters thick is in fault contact on both

Figure 27 Face of the Summit vein-fault encased in ice crystals as it appeared on the 100 foot drift level, July 2, 2007. Note discordant contact with hanging and foot walls.

the hanging and footwall by the Mikado Phyllite. Schist breccia is caught within the vein structure, indicating vigorous intrusion and emplacement of sulfide-quartz solutions. Arsenopyrite is quite abundant in the Summit system. We examined the hanging wall north and west of the 100 foot level adit where a zone of quartz veinlet mineralization parallel to and north of the main Summit vein-fault structure cuts foliation in meta-turbidite schist (unit Dut) at high angles. On chip-channel sample (#203448) across a 1.5 meter width of arsenopyrite-bearing quartz veinlets, about 25 meters north of the main Summit vein-fault zone, assayed 0.690 g/t gold, 0.30 g/t silver, 0.98 percent arsenic, and 68 ppm antimony. This low grade, gold-bearing zone could conceivably be the base of the Ratchet Ridge system that trends in a parallel direction to the southeast. More work should attempt to ascertain whether the two mineralized areas are linked, especially if the Ratchet Ridge prospect is to be drill-tested in 2008.

During map rechecks, we encountered the East Prospector vein-fault about 400 meters due west of the main LSGMC camp on Mello Bench. The East Prospector exhibits the notable distinction of containing significant galena in addition to arsenopyrite. The East-Prospector vein-fault strikes north 78^{o} west (102^{o}) and dips 75^{o} southwest along a splay of the Pioneer high angle fault, one of the most conspicuous high angle faults in the Chandalar study area. As the Pioneer fault separates the upper and lower plate schist units in the northern part of the map area, it could conceivably be an important ore control for vein-fault mineralization.

Examination of the vein-fault in the field showed that the hanging wall contained most of the sulfide-quartz mineralization in the 1.0-to-1.5 meter thick vein. There, blebs of galena and co-genetic arsenopyrite up to 4 cm in diameter, and secondary anglesite and scorodite occur along the edge of the vein (see appendix III; figure 28). Of possible exploration significance is that a younger quartz vein clearly cuts the older galena-arsenopyrite mineral zone. A single chip-channel sample (#4705) of mineralization that tested about 75 centimeters of vein width at the hanging wall contained 0.135 grams/tonne gold, 82.1 grams/tonne silver, 1,030 ppm arsenic, 127 ppm bismuth, 11.1 ppm cadmium, 13 ppm antimony, and 0.95 percent lead (see appendix II).

Figure 28 Sulfide-quartz mineralization from the East Prospector vein-fault system near Mello Bench, illustrating a younger quartz vein cutting an older, quartz-galena-arsenopyrite phase.

Although dominantly a silver-polymetallic vein, which distinguishes it from most other Chandalar veins, the East Prospector system does contain anomalous gold, which appears in greater concentrations elsewhere along the Pioneer Fault system.

Also noted was an overgrown prospect pit nearly 100 meters north of the East Prospector vein-fault, where another un-sampled, quartz vein—all in rubble--contains disseminated galena and arsenopyrite (see station 07BT226, appendix I; not sampled for assay). Since no exposures were present, no bedrock or structural information was available to determine the extent of this unnamed mineralization. The East Prospector area, which is proximal to the LSGMC Mello Bench base camp, might be considered for surface exploration in the future, although silver—not gold--is the dominant precious metal present. These polymetallic occurrences might explain why galena occurs locally in some abundance in the panned concentrates in Little Squaw Creek. The polymetallic nature of the East Prospector and related veins; i.e., the presence of bismuth, cadmium, and dominance of silver, could indicate a different origin for some vein-fault mineralization types in the district.

PRGCI selected eleven (11) rock and one placer concentrate samples to be examined with the use of the scanning electron microprobe. Six additional samples of placer concentrates have been subsequently provided by LSGMC placer contractor Jeff Keener to better understand the heavy mineral concentrations in the area. The mineralogical identifications of both sulfide species and alteration minerals have been included in previous descriptions of areas investigated. The place concentrates in Little Squaw Creek contain ‘high quality’ ilmenite, which if found in large quantities, would be sought by those using metallurgical grade ilmenite (Bart Cannon, communication via phone 12/22/07). Summaries of microprobe analyses appear in Appendix III.

Discussion and Drill Collar Recommendations

The 2006 work completed last year by PRGCI was designed to provide LSGMC with a geologic framework on which to better understand and classify the firm's mineral deposits, mainly gold, and to provide guidelines from which to conduct mineral exploration and baseline geochemical studies could be successfully undertaken. Work on 2007 was primarily aimed at investigating the best gold targets available; based on the information thus far accumulated by both PRGCI and LSGMC. PRGCI indicated to LSGMC management in April, 2007 that exploration targets would be suggested and prioritized this year for possible 2008 follow-up with a diamond core drill. PRGCI did not systematically investigate some better known vein-fault prospects held by LSGMC because: 1) the results of past work on these properties, including drill-testing during 2006 and prior times; and 2) the professional judgment of PRGCI was that the best targets to work on were those selected for work.

We were able to document that low grade auriferous veinlet mineralization offsite from the main quartz veins occurs in all of the sites investigated—namely Aurora Gulch, Ratchet Ridge, portions of the Mikado structure, the Indicate-Tonopah system, and the Summit vein-fault, which may be the base of the Ratchet Ridge system. Gold-bearing solutions are intruding up along joint surfaces and minor structures in the zone adjacent to the main fault structures that define historic prospects, usually in hanging wall positions. Our work confirms that intersecting northeast striking, quartz-bearing structures at, for example, those mapped and sampled in the Mikado system, do contain significant gold concentrations.

PRGCI believes that alteration mineral indicators could help locate gold-bearing mineralization. 'White leachate' alteration was conspicuously present in the 'hanging wall' portions of the Mikado Mine pit and extensions of the Mikado vein-fault to both the southeast and northwest, and in the Indicate-Tonopah, Summit, Ratchet Ridge, and Aurora Gulch areas. PRGCI also noted this alteration type at the Little Squaw gold mine. Probe work indicates these are combinations of epsomite, alunogen, or gypsum that could be manifestations of hydrothermal systems—or perhaps just the result of surface weathering of sulfide or metamorphic minerals. Distinctive hematite alteration first pointed out and recognized by Jim Barker are also present in the same general areas, but often confined to ‘footwall zones’. Mesothermal lodes in the Otago Schist on the South Island of New Zealand frequently carry localized, iron-oxide halos adjacent to veins, which are believed to be the result of metamorphic epidote, actinolite, and pumpellyite in host rocks breaking down to iron oxide and calcium carbonate byproducts during emplacement of the mesothermal fluids (e.g., Paterson, 1988). The FeOx alteration progressively decreases in abundance away from the vein systems. Such a phenomenon might explain the hematite alteration and magnetic anomalies observed in the Chandalar district. Conversely, kaolinite, Mg-sulfates, pyrite, and calcite and are added into wall rocks within the thermal gradient produced by the emplacement of the quartz-sulfide veins. The ‘white leachate’ and hematite alteration might be used locate the traces of sometimes subtle vein-fault systems, which could lead to sighting specific drill hole locations or additional sampling efforts.

PRGCI did not find high grade, auriferous ore shoots other than the obvious zone present in the Mikado Mine pit area (figure 29). The relative gold content of both the main quartz-filled vein-faults and adjacent, stringer veinlet zones is low or, in many cases, present in only trace amounts. Gold concentrations in the vein-fault systems evaluated are apparently spotty and discontinuous. Discovering a mineralized rock body of sufficient size and grade will be a challenge. RC Drilling of selected lode prospects undertaken by LSGMC during 2006 found that ore shoots did not always project at depth from obvious exposures at the surface, underlining the challenges that a drill program faces in the district.

The degree of structural deformation and complexity often correlates with the relative sizes of mesothermal lodes. The relative density of compressional and transcurrent deformational serves as important criteria to estimate relative potential of mesothermal lodes. According to Eremin (1995), distribution and size potential of mesothermal gold lodes in the Yana-Kolyma Fold Belt of eastern Russia increases with: 1) formation under small amplitudes of movement; 2) formation during average amplitudes of movement; and 3) formation under large amplitudes of movement. Using an Alaskan example, the association with world class lodes in the Juneau Gold belt of Southeastern Alaska is directly related to transcurrent and compressional movement along the Coast Range lineament, a large transcurrent fault feature. The best possibility for hosting a large mesothermal lode in the Chandalar district will be along those structures with large and reoccurring, transcurrent and compressional movement histories. PRGCI ranks the following three targets for drill testing in 2008:

1) *Mikado Target* The highest priority target for LSGMC should be the Mikado Shear Zone; a.k.a., Mikado Vein-Fault Zone, which offers the best chance in the district for discovery of a bulk-mineable gold deposit. This fundamental structural control can be traced with certainty for six kilometers (4 miles) from St. Mary's Creek northwestward to the divide between Tobin and Boulder Creeks. If the Indicate-Tonopah zone is indeed the offset extension of the Mikado fault system, an additional kilometer to the southeast can be added. Likewise, a possible extension in Boulder Creek would add at least two kilometers to the strike length. The Mikado shear zone is the best developed in the district, with shearing, faulting and silica-sulfide (gold) emplacement veins occurring over total widths ranging from 25-to-65 meters. The Mikado fault zone should be drill tested along the zone southeast of the historic Mikado mine. Drill collars set up to intersect both northeast and northwest striking auriferous veins in the general vicinity of trenches 3-E, 4-E, and 5-E should attempt to intersect the zone at about 50 degrees dip (see figure 30). The Mikado Vein-Fault system should also be drill-tested near the pass between Tobin and St. Mary's Creeks, where gold mineralization appears to be concentrated. The writer recommends that the structurally complex Mikado Fault should drill-tested from both the southwest and northeast sides, with drills aimed back into the structural target. Three or more drill holes collared from the northeast and three or more drill holes collared from the southwest would probably be sufficient to test anomalies determined in 2007. At least one drill hole should test the existing Mikado mine area below the underground mine workings.

2) *Ratchet Ridge/Summit Hanging Wall Target* The Ratchet Ridge system was shown during the 2007 work to have a strike length of at least 600 meters. When combined with the possible association with the hanging wall of the Summit mine, that could be lengthened to 1,000 meters, making the northwest-striking, Summit-Ratchet Ridge zone second in size only to the Mikado Shear and Fault system. PRGCI recommends that the Ratchet Ridge and Summit lode be drill tested in 2008. Firstly, two or more drill holes should step out with collars about 100 meters north of the 100 foot level area of the Summit Mine and drill back south into the vein system. The Ratchet Ridge should be tested along strike in the general vicinity of sample sites #4643, which would test the eastern portion of the zone. The central portion of the zone could be tested by collaring a hole in the vicinity of sample site #4702. Both drill hole locations would help answer the question whether or not the hanging wall system northeast of the main Summit vein-fault contains elevated gold values over significant widths.

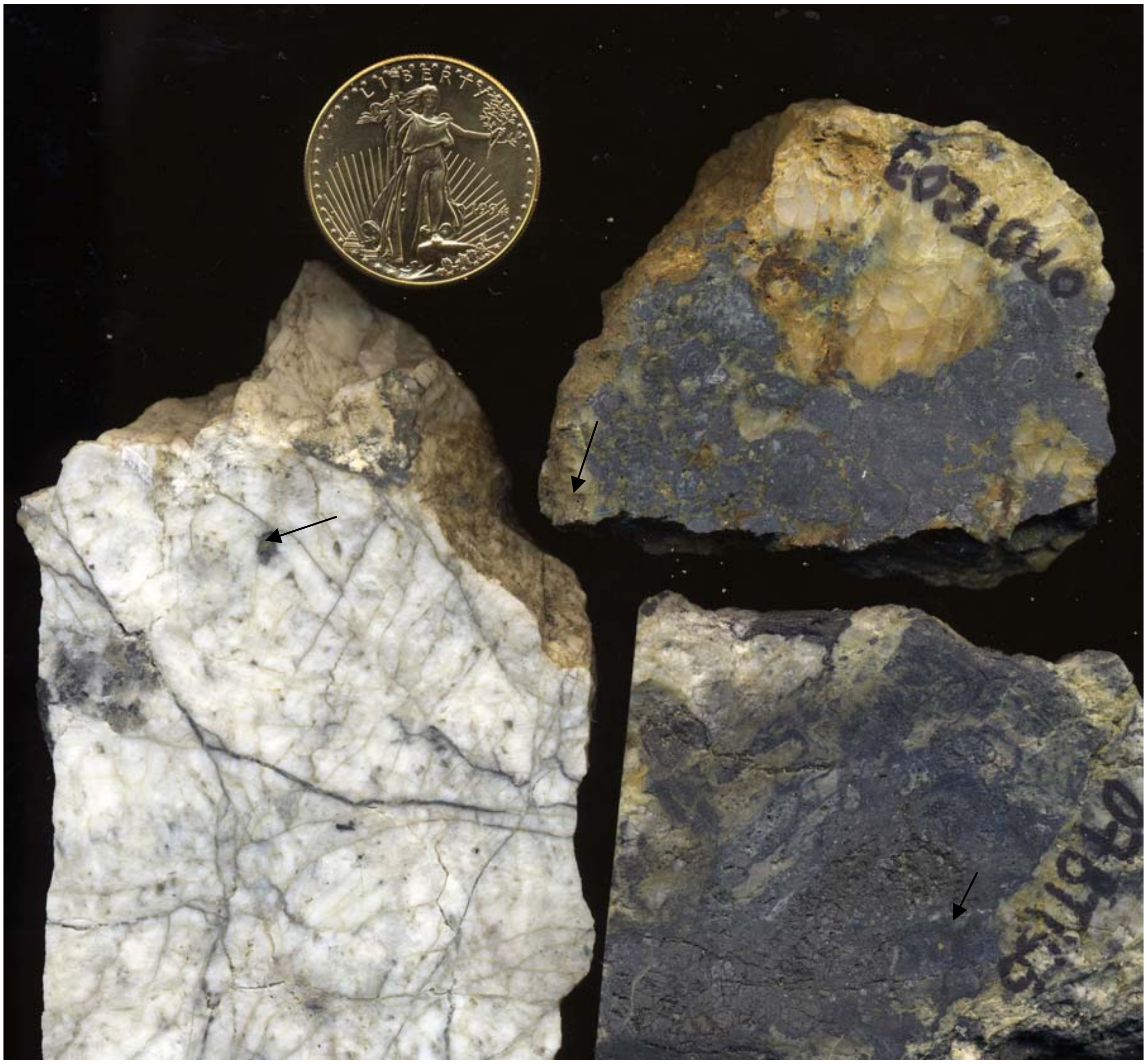

Figure 29 Examples of high grade gold mineralization from sampled slabbed in the Mikado Mine Pit area in 2007 at station 07BT203 (near analytical sample site #203445), showing both quartz-rich, sulfide poor examples and the sulfide-rich, free gold type of mineralization—arrows indicate sites of free gold grains.

3) <u>Aurora Gulch Target</u> The third-highest target drill priority to be evaluated with a drill in 2008 is the Aurora Gulch structural zone. Much of this recommendation is based not only on data collected by PRGCI in 2007 but even more extensive information collected by Jim Barker during 2006 and 2007. The Aurora Gulch target is to be regarded as a low grade, bulk-mineable target where low gold grades are to be expected. Sampling and geological work by PRGCI suggests a minimum 65-meter-wide, northwest-striking high angle zone quartz veinlets with gold values. The writer recommends that a scissors of two or more drill holes test the target area as determined during our work as sample sites #4536-4542 (see table 1; figure 9). Other drill collars could be sited using the soil/chip grid and magnetic anomalies presented by Barker (2006). This exploration campaign

would likely ascertain whether or not there is sufficient density of gold-bearing veinlets to constitute a bulk-mineable target at Aurora Gulch.

4) *Indicate-Tonopah Vein Fault* The Indicate Tonopah vein-fault system should be drill-tested when property issues in Big Creek Valley have been resolved. Collars should be bracketed across the structure from southeast to northwest (see figure 22), and drill into the northwest-striking mineral trend from both the southwest and northeast.

Caveats for the drill-testing prospects include the stipulation that all drill holes be completed to a minimum depth of 200-300 meters and accomplished with a minimum of 'H' core size or preferably 'PQ' core size. Chandalar Development Corporation and previous operators conducted both percussion and small diameter, 'AQ' diamond core drilling programs in the Mikado mineral zone, but both techniques suffered from significant recovery problems in frozen clay gouge and fault zones (Swanson and Ashworth, 1981). Core drilling of insufficient diameter and hole depth will likely fail to test the mesothermal gold prospects, due to the nugget effect, poor core recovery, and need to test at depth.

PRGCI recommends that more surface exploration be conducted on other prospects in the district before drill testing commences Abundant surface and subsurface work has already been completed over several exploration cycles on the Little Squaw, Kiska and Eneveloe systems with variable success, with LSGMC completing an RC drill program during 2006. More drilling on these prospects is warranted after more surface data is acquired and existing data is scrutinized. The East Prospector system should be examined, because very little work has been in past years because it has been regarded as a silver-only lode. This gold-silver-bearing system has formed in the Pioneer Fault zone, which improves chances for structural continuity.

Grid-style soil and ground magnetic surveys should be completed in drill test areas. A priority should also be placed on systematic grid-style soil surveys over larger parts of the district, which does not exist at present. Such a grid would allow for constructing contours, which would be invaluable for locating drill collars. More magnetic survey data should be acquired throughout the district as well with the goal of providing a contoured, magnetic alteration guide for interpretation and sighting of drill collars for testing.

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Appendix I EXCEL Spread Sheet Showing Station Location Information for 2007 Chandalar Mapping and Prospect Evaluation Project.

Station	Date	UTM Datum	UTM Zone	Easting	Northing	Elevation	Foliation (S1)	Cleavege (S2)	Joint 1	Joint 2
07BT100	7/1/2007	NAD27AK	06W	449998	7492899	NA			102-74SW	
07BT101	7/1/2007	NAD27AK	06W	449939	7492752	1,100				
07BT102	7/1/2007	NAD27AK	06W	450654	7492690	1,486	065-27NW			
07BT103	7/2/2007	NAD27AK	06W	448996	7491922	1,486				
07BT104	7/2/2007	NAD27AK	06W	449902	7491802	4,553	118-08NE		110-85SW	
07BT105	7/2/2007	NAD27AK	06W	450044	7491851	1,429	116-08NE		120-vertical	
07BT106	7/2/2007	NAD27AK	06W	450122	7491735	NA	045-15SE			
07BT107	7/2/2007	NAD27AK	06W	450326	7491875	1,420	153-26NE		118-Vertical	180-Vertical
07BT108	7/2/2007	NAD27AK	06W	450298	7491974	1,445	118-16NE	097-30NE		
07BT109	7/2/2007	NAD27AK	06W	450243	7491987	1,452	125-34NE		090-75S	015-80NW
07BT110	7/2/2007	NAD27AK	06W	450308	7492063	1,441	103-16NE			
07BT111	7/2/2007	NAD27AK	06W	450381	7492111	1,443	115-16NE			
07BT112	7/2/2007	NAD27AK	06W	450359	7492269	1,428	112-25NE		115-Vertical	
07BT113	7/2/2007	NAD27AK	06W	450554	7492394	1,386			120-65SW	
07BT114	7/2/2007	NAD27AK	06W	450464	7492451	1,391			120-Vertical	
07BT115	7/2/2007	NAD27AK	06W	450525	7492572	1,380	105-16NE		090-80S	
07BT116	7/2/2007	NAD27AK	06W	450774	7492480	1,383	099-30NE			
07BT117	7/2/2007	NAD27AK	06W	450924	7492585	1,367	120-35NW			
07BT118	7/2/2007	NAD27AK	06W	450978	7492662	1,356				
07BT119	7/2/2007	NAD27AK	06W	450635	7492604	4,631				
07BT120	7/3/2007	NAD27AK	06W	451375	7493601	1,280	108-13NE		118-Vertical	
07BT121	7/3/2007	NAD27AK	06W	451463	7493749	1,291	145-06SW			
07BT122	7/3/2007	NAD27AK	06W	451566	7493881	1,285				
07BT123	7/3/2007	NAD27AK	06W	451598	7493924	1,280				
07BT124	7/3/2007	NAD27AK	06W	451573	7493551	1,256				
07BT125	7/3/2007	NAD27AK	06W	451209	7493383	1,340	098-06NE			
07BT126	7/3/2007	NAD27AK	06W	450851	7493099	1,420			110-80SW	
07BT127	7/3/2007	NAD27AK	06W	450753	7492986	1,413				
07BT128	7/3/2007	NAD27AK	06W	450776	7493058	1,408			100-75NE	
07BT129	7/3/2007	NAD27AK	06W	450813	7493107	1,408			100-80SW	

Station #	Isoclinal Fold (F1)	Mineralized Fault	Station Description
07BT100		102-74SW	Quartz-carbonate sulfide veinlet on surface
07BT101			Meta-gabbro but only in float
07BT102			Medium green, porphyroblastic, calcareous schist
07BT103		108-35NE	Stringer system of quartz-FeOx veins in Summit system near drill hole 07LS-11
07BT104		110-85SW	Gray, micaceous fissle schist (Mikado phyllite) with prominent mineralized joint surfaces
07BT105	090-20W	120-Vertical	Gray, micaceous fissle schist (Mikado phyllite); sampled veinlet zone LS07-4515
07BT106			Gray, micaceous, fissle schist; fine grained
07BT107			Fissle schist unit (Mikado Phyllite) but no mineralization recognized
07BT108			Fissle schist unit (Mikado Phyllite) with thin, 3-5 cm thick, brown calcareous schist layers
07BT109		015-80NW	Northeast conjugate joints in filled with quartz + sulfide (now FeOx) in Dut (meta-turbidites)
07BT110			Gray, micaceous calcareous schist (Dul) as on south side of Little Squaw Peak in 2006
07BT111	010-15NE		Fairly classic, coarse grained, micaceous quartz-rich, meta-turbidite schist (Dut)
07BT112		115-Vertical	Thin quartz stockwork in coarse-grained, micaceous, quartz-rich, meta-turbidite schist (Dut)
07BT113		120-65SW	Thin quartz stockwork in south wall of Uranus vein-fault system; LS07-4517
07BT114		120-Vertical	Thin quartz stockwork in south wall of Uranus vein-fault system; LS07-4518
07BT115		090-80S	Gossan zones in joint sets; in meta-turbidite schist (Dut); LS07-4519
07BT116			Medium green, porphyroblastic, quartz chlorite meta-turbidite schist
07BT117			Medium green, porphyroblastic, quartz chlorite meta-turbidite schist; small gash veins
07BT118			Small pyroxene meta-gabbro lense; sub-foliated; for major oxide
07BT119			North of Little McLellan Fault is complex calc-chlorite schist section with meta-gabbro
07BT120			Possible black schist (Dlb) section below chlorite-quartz calcareous schist
07BT121			Green, porphyroblastic calcareous schist (Dlc) for major oxide analyses
07BT122			Rubble of tan, K-spar-quartz sericite schist (tuff of Dfl unit) LS07-4520
07BT123		119-85SW	Quartz vein cuts Dlc unit; maybe 1 meter thick
07BT124			Rubble of black schist (Dlb) for major oxide analyses
07BT125			Coarse-grained, gray, chlorite calcareous schist (Dul) compare with 07BT121 MO
07BT126		110-80SW	Joint surfaces in chlorite muscovite schist are coated with quartz crystals and gossan
07BT127			Collar of Crystal Drill Hole Cry-06-031
07BT128		100-75NE	Quartz gash vein system 60 meters north of Crystal vein; LS07-4522
07BT129		100-80SW	Another gash vein with quartz crystals and gossan (thin--1-2 cm thick); LS07-4523

Station	Date	UTM Datum	UTM Zone	Easting	Northing	Elevation	Foliation (S1)	Cleavege (S2)	Joint 1	Joint 2
07BT130	7/3/2007	NAD27AK	06W	451131	7493156	NA				
07BT131	7/3/2007	NAD27AK	06W	451063	7492986	1,340				
07BT132	7/3/2007	NAD27AK	06W	450988	7492866	1,334				
07BT133	7/3/2007	NAD27AK	06W	450471	7492600	1,357				
07BT134	7/3/2007	NAD27AK	06W	450477	7492626	1,374	112-22NE			
07BT135	7/3/2007	NAD27AK	06W	450436	7492768	1,357	115-30NE			
07BT136	7/3/2007	NAD27AK	06W	450428	7492845	1,339	101-22NE		118-Vertical	
07BT137	7/4/2007	NAD27AK	06W	449756	7492840	1,052	Horizontal			
07BT138	7/4/2007	NAD27AK	06W	449766	7492725	1,066	060-22NW			
07BT139	7/4/2007	NAD27AK	06W	449839	7492704	1,079	105-24NE			
07BT140	7/4/2007	NAD27AK	06W	449974	7492583	3,740	118-25NE			
07BT141	7/4/2007	NAD27AK	06W	450053	7492663	1,151	105-29NE		050-18NW	
07BT142	7/4/2007	NAD27AK	06W	450145	7492730	1,165	106-28NE		118-Vertical	052-75NW
07BT143	7/4/2007	NAD27AK	06W	450219	7492759	1,217	106-25NE		047-80NW	
07BT144	7/4/2007	NAD27AK	06W	450199	7492809	1,254	103-27NE		115-Vertical	045-80SE
07BT145	7/4/2007	NAD27AK	06W	450334	7493001	1,227	110-22NE		015-Vertical	
07BT146	7/4/2007	NAD27AK	06W	450420	7493057	1,231	152-30NE			
07BT147	7/4/2007	NAD27AK	06W	450448	7493113	1,230	155-22NE			
07BT148	7/4/2007	NAD27AK	06W	450485	7493173	1,226	090-22N	155-62SW	155-Vertical	
07BT149	7/4/2007	NAD27AK	06W	450516	7493246	1,245	070-30NW			
07BT150	7/4/2007	NAD27AK	06W	450555	7493393	1,222	112-30NE			
07BT151	7/4/2007	NAD27AK	06W	450642	7943520	1,227			040-Vertical	155-70SW
07BT152	7/4/2007	NAD27AK	06W	450680	7493590	1,200				
07BT153	7/4/2007	NAD27AK	06W	450359	7493365	1,143	135-25NE			
07BT154	7/4/2007	NAD27AK	06W	450280	7493434	1,087	117-27NE		120-Vertical	015-Vertical
07BT155	7/5/2007	NAD27AK	06W	449302	7493393	1,227				
07BT156	7/5/2007	NAD27AK	06W	448968	7492839	1,226				
07BT157	7/5/2007	NAD27AK	06W	444480	7491932	1,058				
07BT158	7/5/2007	NAD27AK	06W	444460	7491928	1,060				
07BT159	7/5/2007	NAD27AK	06W	445085	7491807	1,140				
07BT160	7/5/2007	NAD27AK	06W	445155	7492153	1,269	117-27NE			
07BT161	7/5/2007	NAD27AK	06W	445226	7492162	1,280			107-80SW	

Station	Isoclinal Fold (F1)	Mineralized Fault	Station Description
07BT130			Limit of outcrop on road (chlorite schist)
07BT131			Road intersection to Crystal and to Pioneer
07BT132			Large body of sub-foliated, pyroxene meta-gabbro--major oxide analyses
07BT133			Fe-charged, folded quartz vein (not boudin) in Fe-schist below Uranus LS07-4524
07BT134			Quartz-sulfide veins sub-parallel to foliation; LS07-4525
07BT135			At McLelland fault, into chlorite calcareous schist and very minor meta-gabbro
07BT136			Section is classic, chlorite quartzose meta-turbidite schist (Dut)--what is it doing here?
07BT137			Laminated, medium grained, quartzose muscovite meta-turbidite schist (Dut unit)
07BT138	025-10NE		Laminated, medium grained, quartzose muscovite meta-turbidite schist (Dut unit)
07BT139			Doubly folded medium grained quartzose muscovite meta-turbidite schist (Dut unit)
07BT140	090-16E		Laminated, medium grained, quartzose muscovite meta-turbidite schist (Dut unit)
07BT141		050-18NW	NE gash vein in gray, homogenous, chlorite muscovite schist--thought to be meta-sandstone
07BT142			Chlorite muscovite schist with prominent joints--no gash veins here
07BT143			Chlorite muscovite schist with prominent joints--no gash veins here
07BT144		045-80SE	Thin quartz-FeOx gash veins cut green, porphyroblastic, calcareous schist
07BT145		015-Vertical	FeOx staining in 015^{o} joint set; in non-calcareous, chlorite muscovite schist
07BT146			Chlorite muscovite schist with prominent joints--no gash veins here; no calc schist in outcrop
07BT147			Folding of 1) meta-gabbro; 2) black graphitic schist; and 3) green/gray feldspathic schist (LP)
07BT148		155-62SW	Dark gray, graphitic black schist (Dlb); geocham sample of quartz-sulfide veinlets=LS07-4528
07BT149			Black schist and green meta-gabbro; old claim post marked 'Crystal #3' gx of rubble=LS07-4529
07BT150			Mixture of 1) chlorite calc-schist; 2) quartz muscovite schist; and 3) meta-igneous greenstone
07BT151			Massive body of light to medium green, non-foliated, pyroxene grains (20%) meta-gabbro MO
07BT152			Northern edge of meta-gabbro, which is a large sill-form body parallel to upper/lower schist units
07BT153			Quartz muscovite schist--no veins
07BT154		120-Vertical	Abundant FeOx+Quartz veinets in joint-controlled fractures but not sampled
07BT155			Revisit Little Squaw mine section: 1) 155a=calc-schist; 2) 155b='black schist' both for MO
07BT156			Revisit Little Squaw Peak calc-schist from last year: for MO comparisons
07BT157			Light gray, very hard, quartzite schist unit--probably Dlq unit mapped to the NW last year
07BT158			Ore sample from Tobin Mill--sulfide rich
07BT159			Revisit calc-schist on road cut from Mikado Mill for MO
07BT160			On south side of saddle--contact between fissle schist and meta-turbidite schist
07BT161		107-80SW	Quartz vein breecia like in St Mary's Creek last year; gx=LS07-4543

Station	Date	UTM Datum	UTM Zone	Easting	Northing	Elevation	Foliation (S1)	Cleavege (S2)	Joint 1	Joint 2
07BT162	7/5/2007	NAD27AK	06W	445246	7492290	1,279	130-34NE			
07BT163	7/5/2007	NAD27AK	06W	445275	7492325	1,288	110-34NE			
07BT164	7/5/2007	NAD27AK	06W	445279	7492306	1,290	110-43NE			
07BT165	7/5/2007	NAD27AK	06W	445278	7492316	1,293	105-25NE		106-80SW	
07BT166	7/5/2007	NAD27AK	06W	445297	7492333	1,299	108-22NW		115-80SW	
07BT167	7/5/2007	NAD27AK	06W	445247	7492369	1,301	100-25NE		100-80SW	
07BT168	7/5/2007	NAD27AK	06W	445212	7492421	1,297	106-32NE			
07BT169	7/5/2007	NAD27AK	06W	445065	7492212	1,245				
07BT170	7/6/2007	NAD27AK	06W	446692	7491315	1,352	109-32NE			
07BT171	7/6/2007	NAD27AK	06W	446830	7491259	1,369	109-35NW		100-85SW	140-65SW
07BT172	7/6/2007	NAD27AK	06W	446394	7491798	1,274				
07BT173	7/6/2007	NAD27AK	06W	445107	7492150	1,293	138-29NE		070-Vertical	
07BT174	7/6/2007	NAD27AK	06W	444982	7492140	1,294				
07BT175	7/6/2007	NAD27AK	06W	445329	7492185	1,262	125-18NE		070-85SE	
07BT176	7/6/2007	NAD27AK	06W	445465	7492092	1,219	112-32NE		100-80NE	
07BT177	7/7/2007	NAD27AK	06W	449256	7492512	1,280	040-41SE			
07BT178	7/7/2007	NAD27AK	06W	449255	7492295	1,300	145-25NE			
07BT179	7/7/2007	NAD27AK	06W	450107	7491924	1,413	119-17NE		120-Vertical	
07BT180	7/7/2007	NAD27AK	06W	450078	7491941	1,416				
07BT181	7/7/2007	NAD27AK	06W	446803	7491285	1,367	107-25NE			
07BT182	7/7/2007	NAD27AK	06W	446866	7491197	1,382	106-22NE			
07BT183	7/7/2007	NAD27AK	06W	447143	7491001	1,510	114-30NE			
07BT184	7/7/2007	NAD27AK	06W	449792	7491811	1,366	030-45SE			
07BT185	7/8/2007	NAD27AK	06W	449873	7490478	1,119	120-32NE			
07BT186	7/8/2007	NAD27AK	06W	449888	7490488	1,122	135-30NE			
07BT187	7/8/2007	NAD27AK	06W	449874	7490531	1,137	125-34NE			
07BT188	7/8/2007	NAD27AK	06W	449819	7490505	1,142	122-30NE			
07BT189	7/8/2007	NAD27AK	06W	449828	7490519	1,143	120-30NE			
07BT190	7/8/2007	NAD27AK	06W	449827	7490436	1,130				
07BT191	7/8/2007	NAD27AK	06W	449684	7490348	1,155			120-Vertical	
07BT192	7/8/2007	NAD27AK	06W	449493	7490237	1,158	115-22NE		070-Vertical	

Station	Isoclinal Fold (F1)	Mineralized Fault	Station Description
		102-75SW	Fissle, 'Mikado Phyllite' (Dup) cut by quartz breccia vein about 40 cm thick
		115-75NE	Likely the main Mikado vein structure 30 cm to 3 m thick; panned 2 flakes gold; gx=LS07-4545
		114-80NE	Complex Mikado vein structure expands out to 3 meters; traced for 125 m along strike
		106-80SW	Quartz-FeOx veinlets along joint sets north of Mikado main vein gx=LS07-4579
		115-80SW	Main 'upper' vein of Mikado Vein; slickenside; 50 cm-1.5 m thick; 7 gold grains panned; gx=4580
		100-80SW	A northwest extension of Mikado vein-fault structure
		109-Steep	Furthest extension of Mikado Vein Fault to the northwest of main trench exposures
			Quartz vein exposures south of saddle, quartz-siderite mineralization sample tomorrow
		105-85NE	Hanging wall of Mikado mine (Mikado Phyllite) distinctly magnetic here.
		100-85SW	Main Mikado ore shoot exposed in open pit=100 strike; subsidiary vein =140 strike
			Barker locates magnetic high in slope debris on his line; 600-800 gammas above background
			Medium grained, meta-turbidite schist, with relict graded beds no veins here
			Quartz vein rubble in schist; some FeOx no sulfides LS07-4582
		070-85SE	Three thin quartz veinlets intrude joint set in Mikado Phyllite; LS07-4583
		100-80NE	Multiple quartz-sulfide FeOx veinlets intrude along 100-80 NE dipping joint; 3 meters; LS07-4584
	120-15SE		Muscovite graphitic schist--transitional from Dum to Dut to Mikado Phyllite (Dup)
		125-65SW	Quartz stockwork veinlets in Dum/Dup contact area; low density of veins (1 per 5 meters)
		108-Vertical	White leachate (alteration) in Mikado Phyllite about 5 meters thick; gx=LS07-4585; sample-probe
			White leachate (alteration) and shattered quartz, Mikado Phyllite about 5 meters thick; gx=LS07-4643
		100-85SW	White Leachate alteration in hanging wall of main Mikado mine; same as at Ratchet ridge
		102-80SW	Other end of Mikado open cut, white leachate about 3 meters above vein in Mikado Phyllite
		100-80SW	In saddle between Big and Tobin Creek (Mikado Fault); white leachate in road cut same as before
			At Ratchet #34 collar; white leachate in both drill cuttings and in outcrop with mineralized vein
		100-70SW	Indicate-Tonopah lode is 1.5-to-3.0 meters wide in creek cut
		100-75SW	Hanging wall of Indicate Tonopah system is a distinctive fissle phyllite
		115-65SW	20-35 cm quartz vein intrudes meta-turbidite schist on slope west of Indicate-Tonopah
		100-80NE	Impressive extension of Indicate Tonopah vein 75-100 cm thick; parallel veinlet zone to north
		105-70NE	Impressive veinlet zone in hanging wall--much like main Mikado Vein system
			Rubble only at old caved adit no sample or measurements
		120-Vertical	Quartz vein in quartz mica schist; could be extension of Kiska; LS07-4651
	150-25NW		Medium to dark gray graphitic schist (black schist-Dlb);vein rubble but nothing sampled

Station	Date	UTM Datum	UTM Zone	Easting	Northing	Elevation	Foliation (S1)	Cleavege (S2)	Joint 1	Joint 2
07BT193	7/8/2007	NAD27AK	06W	449529	7490307	1,184				
07BT194	7/8/2007	NAD27AK	06W	449975	7490323	1,142	125-30NE			
07BT195	7/8/2007	NAD27AK	06W	450008	7490277	1,156				
07BT196	7/8/2007	NAD27AK	06W	449916	7490437	1,127				
07BT197	7/8/2007	NAD27AK	06W	450976	7491059	1,237	040-65SE			
07BT198	7/8/2007	NAD27AK	06W	450745	7491088	1,236	112-60NE			
07BT199	7/9/2007	NAD27AK	06W	446800	7491300	1,376				
07BT200	7/9/2007	NAD27AK	06W	446949	7491089	1,428	160-42SE			
07BT201	7/9/2007	NAD27AK	06W	447002	7491146	1,441	144-42NE		010-40SE	
07BT202	7/9/2007	NAD27AK	06W	447007	7491193	1,442	125-30NE		040-45SE	
07BT203	7/9/2007	NAD27AK	06W	447075	7491082	1,468				
07BT204	7/9/2007	NAD27AK	06W	447110	7491036	1,496	100-20NE			
07BT205	7/9/2007	NAD27AK	06W	447114	7491017	1,498	108-20NE			
07BT206	7/10/2007	NAD27AK	06W	450386	7491199	1,227	090-08N			
07BT207	7/10/2007	NAD27AK	06W	450771	7491712	1,212	122-42NE		065-85SE	155-65SW
07BT208	7/10/2007	NAD27AK	06W	450935	7491887	1,215	065-29NW		110-Vertical	
07BT209	7/10/2007	NAD27AK	06W	450941	7491971	1,220				
07BT210	7/10/2007	NAD27AK	06W	451005	7492169	1,246	155-35NE		110-80SW	020-Vertical
07BT211	7/10/2007	NAD27AK	06W	450876	7492221	1,294	135-35NE		110-80SW	
07BT212	7/10/2007	NAD27AK	06W	450733	7492003	1,282				
07BT213	7/10/2007	NAD27AK	06W	450617	7491767	1,302	088-40NW			
07BT214	7/10/2007	NAD27AK	06W	450469	7491345	1,260	085-22NW			
07BT215	7/11/2007	NAD27AK	06W	449793	7491935	1,321	100-22NE		112-65SW	
07BT216	7/11/2007	NAD27AK	06W	449709	7491929	1,328	135-27NE		118-70SW	110-75SW
07BT217	7/11/2007	NAD27AK	06W	449608	7491915	1,339	122-33NE		112-35SW	108-72SW
07BT218	7/11/2007	NAD27AK	06W	449503	7491941	1,344	135-25NE		110-80SW	
07BT219	7/11/2007	NAD27AK	06W	449712	7491833	1,360	140-32NE		112-70SW	135-55NE
07BT220	7/11/2007	NAD27AK	06W	449819	7491824	1,371			125-70SW	
07BT221	7/11/2007	NAD27AK	06W	450009	7491839	1,411	108-36NE		108-80NE	
07BT222	7/11/2007	NAD27AK	06W	450020	7491989	1,377	100-21NE		110-Vertical	
07BT223	7/11/2007	NAD27AK	06W	450042	7492073	1,360	108-40NE		000-65E	

Station	Isoclinal Fold (F1)	Mineralized Fault	Station Description
		120-Vertical	FeOx quartz vein in rubble of black schist (Dlb); 75 cm chip sample; LS07-4652
		155-Vertical	Thick 1.5-to-2.0 meter quartz vein with FeOx cuts Black schist (Dlb); 2.0 meter chip LS07-4653
		125-Vertical	Upper end of thick quartz vein as at 194; in meta-turbidites; maybe controlled by thrust fault
		110-Vertical	Eastern extension, Indicate-Tonopah; 3.0 meters thick with arsenopyrite; offset of Mikado? LS07-4654
			Blocky, light gray coarse-grained, upgraded meta-turbidite schist (Dus)
	090-21E		Light gray, coarse grained, upgraded meta-turbidite schist (Dus)
			West end of Mikado open cut--see sketch map and geochem sample cards for more information
			South end of trench 3E; all coarse-grained, meta-turbidite schist here
		010-40SE	In north end of trench 3E; hematite-altered zone 40 meters wide with 1.0 m arsenopyrite vein LS07-4664
		040-45SE	Quartz veins with arsenopyrite, siderite and white leachate in hematite zone; LS07-4665, 4666, 4667
		120-Vertical	20-40 cm vein of quartz, arsenopyrite, and scorodite--multi percent arsenic Mikado Fault, LS07-4668
		112-20NE	Impressive low angle quartz vein with aspy in low angle shear zone in Mikado zone, Barker sample
		110-80NE	Impressive mineralization at Mikado fault--abundant aspy; zone is 4.0 meters wide, Barker sample
			Light gray, medium grained, quartz-rich, muscovite schist of upper plate; non-calcareous
			Light to medium gray, medium grained, quartz-rich, muscovite schist probably meta-turbidite (Dut)
			Light gray, medium grained, quartz-rich, muscovite schist of upper plate; white leachate identified
			Rubble crop of sub-foliated, medium green, fine grained pyroxene? meta-gabbro
			Medium gray, medium grained, resistant, quartz-chlorite-muscovite schist of upper plate (Dum)
		110-80SW	FeOx-stained chlorite-muscovite, fissle schist (Dup); quartz-FeOx veins with sulfides LS07-4669
			Rubble:1) Medium gray, medium grained, micaceous calcareous schist; 2) sub-foliated meta-gabbro
			Upper plate quartz-rich schist
			Upper plate quartz-rich, schist with nearly black micaceous impure marble--most calcareous in area
		112-65SW	Fissle schist (Mikado Phyllite); quartz-FeOx in 2cm veinlets; 3 meter chip; LS07-4670
		118-70SW	Fissle schist (Mikado Phyllite); 8 quartz-FeOx in 2cm veinlets; 6 meter chip; LS07-4671
	070-12NE	108-72SW	Fissle schist (Mikado Phyllite); quartz-FeOx in both high and low angle; 3 meter chip; LS07-4672
		110-80SW	Fissle schist (Mikado Phyllite); 30 cm thick quartz vein with arsenopyrite grains; LS07-4700
		112-70SW	Fissle schist; quartz-FeOx veins along steep NW fractures and sub-parallel to S1; LS07-4701
		125-70SW	At upper Ratchet drill hole, structurally contorted NW vein zone with mylonite LS07-4702
	040-15NE	108-80NE	5 meter thick reddish stained, hematite schist below is moved talus not in place
		110-Vertical	Vein in fissle schist (Mikado Phyllite); low FeOx content; LS07-4703
	070-25SW		3 meter wide zone of quartz-FeOx veinlets along north-south joint set LS07-4704

Station	Date	UTM Datum	UTM Zone	Easting	Northing	Elevation	Foliation (S1)	Cleavege (S2)	Joint 1	Joint 2
07BT224	7/11/2007	NAD27AK	06W	449750	7494414	1,108				
07BT225	7/11/2007	NAD27AK	06W	449647	7494624	1,092	125-32NE		102-75SW	
07BT226	7/11/2007	NAD27AK	06W	449789	7494706	1,059				
07BT227	7/11/2007	NAD27AK	06W	450151	7494942	966				
07BT228	7/11/2007	NAD27AK	06W	449474	7493655	NA				
07BT229	7/12/2007	NAD27AK	06W	450157	7493555	996	135-18NE		118-72SW	030-Vertical
07BT230	7/12/2007	NAD27AK	06W	450240	7493463	1,059	138-20NE		108-74SW	
07BT231	7/12/2007	NAD27AK	06W	450042	7493344	1,035	133-18NE		116-78SW	
07BT232	7/12/2007	NAD27AK	06W	449905	7493433	976	160-13NE	106-06SW		
07BT233	7/12/2007	NAD27AK	06W	444133	7490958	977	088-20NE			
07BT234	7/12/2007	NAD27AK	06W	447203	7491001	1,502	082-21NE			
07BT235	7/12/2007	NAD27AK	06W	451566	7493879	1,285				
07GL037	7/1/2007	NAD27AK	06W	449998	7492899	1,143	102-Vert.			
07GL038	7/1/2007	NAD27AK	06W	449955	7492742	1,143				
07GL039	7/1/2007	NAD27AK	06W	449965	7492643	3,631				
07GL040	7/1/2007	NAD27AK	06W	450740	7492652	4,607				
07GL041	7/1/2007	NAD27AK	06W	450664	7492686	4,669	120-18NE			
07GL042	7/2/2007	NAD27AK	06W	448998	7491921	4,864				
07GL043	7/2/2007	NAD27AK	06W	449902	7491802	4,553	062-8NW			
07GL044	7/2/2007	NAD27AK	06W	449986	7491816	4,553	100-33NE		035-Vert.	
07GL045	7/2/2007	NAD27AK	06W	07BT109						
07GL046	7/2/2007	NAD27AK	06W	450354	7492091	4,719	105-28NE			
07GL047	7/2/2007	NAD27AK	06W	450436	7492165	4,692	130-31NE		020-Vert.	105-82SW
07GL048	7/2/2007	NAD27AK	06W	450501	7492337	4,610	012-26SE		105-82SW	010-Vert.
07GL049	7/2/2007	NAD27AK	06W	450576	7472516	4,551				
07GL050	7/2/2007	NAD27AK	06W	450640	7492533	4,645	095-27NE		105-76SW	080-82NW
07GL051	7/2/2007	NAD27AK	06W	450642	7492631	4,685				
07GL052	7/2/2007	NAD27AK	06W	450690	7492660	4,690				
07GL053	7/2/2007	NAD27AK	06W	450635	7492604	4,631				
07GL054	7/3/2007	NAD27AK	06W	451902	7493669	3,946				
07GL055	7/3/2007	NAD27AK	06W	451746	7493577	4,006	150-12NE		100-Vert.	030-80SE

Station	Isoclinal Fold (F1)	Mineralized Fault	Station Description
07BT224			Fault sliver of classic, laminated, nearly black, graphitic 'black schist' (Dlb); like in Little McLelland
07BT225		102-75SW	East Prospector zone; 1 meter thick, NW-striking, quartz galena-arsenopyrite vein LS07-4705
07BT226			Prospect pit with quartz vein mineralization plus trace galena in quartz; no outcrop
07BT227			Dark green, non-foliated, pyroxene meta-gabbro; extensive silica-carbonate alteration; only rubble
07BT228		090-81S	At Little Squaw above 100' level; slickenside bearing fault plane in quartz vein near footwall; lateral slip
07BT229		118-72SW	Quartz-FeOx veinlets along NW striking joint sets; spaced every 30 cm; dense; LS07-4695
07BT230	045-12NE		Laminated upper plate schist; quartz-FeOx veinlets along NW striking joints spaced 80 cm; LS07-4696
07BT231			Micaceous quartz-rich schist of upper plate
07BT232	110-13SE		Highly folded and deformed upper plate schist--probably in axis of isoclinal fold
07BT233			Black schist locality (Dlb) for U/Pb age dating candidate--2 bags
07BT234			Upper plate, meta-turbidite schist locality (Dut) for U/Pb age dating candidate--2 bags
07BT235			Felsic K-spar schist locality (Dlf) for U/Pb age dating candidate--2 bags; abundant FeOx gossan
07GL037			Sheeted veins along joint set that sub-parallels strike of foliation
07GL038			Greenstone rubble, rounded with pyrite grains sub-schistose with relict pyroxene crystals
07GL039			Sulphide bearing quartz veinlet zone in Aurora Gulch; possible quartz-bearing black schist.
07GL040			Green calc-actinolite-albite. Schist above black schist
07GL041			Black schist with fine laminated quartz with of FeOx zones inter layered with calc greenschist.
07GL042			Sheeted veins in meta-turbidite schist. Phyllitic contact at drill site.
07GL043			Fissle phyllitic schist with quartz veins parallel to foliation
07GL044			Fine laminated platy black-gray fissle schist. Quartz lamina and iron after pyrite.
07GL045			Fine to coarse meta-turbidite schist with coarse layers of elongate pebbles to one cm.
07GL046			Fine laminated quartz muscovite schist. Quartz boudins to 8 cm. thick.
07GL047			Platy muscovite gray schist with Fe rich layers to 2cm and
07GL048	080-18NE		Med to coarse meta-turbidite gray qtz muscovite schist. Fresh platy schist with FeOx grains to 3%
07GL049			Gray quartz muscovite schist. Local Fe alteration on foliation surfaces.
07GL050	015-15NE		Isoclinally folded quartz. muscovite schist.
07GL051			Light green albite-chlorite-actinolite-calc schist.
07GL052			Black schist. Isoclinally folded with albite actinolite calcite greenschist. North side of fault.
07GL053		080-?	On N85E to EW trending fault
07GL054			Trend of green calc schist oblique saddle and lumpy phlogopite/muscovite schist in contact to S.
07GL055			Silver gray "lumpy" muscovite schist, faulted against calc-green schist

Station	Date	UTM Datum	UTM Zone	Easting	Northing	Elevation	Foliation (S1)	Cleavege (S2)	Joint 1	Joint 2
07GL056	7/3/2007	NAD27AK	06W	451427	7493678	4,225				
07GL057	7/3/2007	NAD27AK	06W	451540	7493670	4,250	Horizontal		100-80SW	010-Vert.
07GL058	7/3/2007	NAD27AK	06W	451455	7493476	4,160	152-16SW			
07GL059	7/3/2007	NAD27AK	06W	451250	7493209	4,260				
07GL060	7/3/2007	NAD27AK	06W	451114	7493369	4,393	150-22NE			
07GL061	7/3/2007	NAD27AK	06W	450852	7493098	4,632			160-80SW	
07GL062	7/3/2007	NAD27AK	06W	450662	7492732	4,801	080-11NW			
07GL063	7/3/2007	NAD27AK	06W	450734	7492814	4,712				
07GL064	7/3/2007	NAD27AK	06W	450954	7493072	4,589				
07GL065	7/3/2007	NAD27AK	06W	450491	7492627	4,447				
07GL066	7/3/2007	NAD27AK	06W	450444	7492821	4,390	128-23NE			
07GL066B	7/3/2007	NAD27AK	06W	450490	7492875	4,416	083-29NW			
07GL067	7/3/2007	NAD27AK	06W	450095	7492786	3,895	050-21SE		130-68SW	015-Vert.
07GL068	7/4/2007	NAD27AK	06W	450135	7492928	3,891				
07GL069	7/4/2007	NAD27AK	06W	450162	7492965	3,910				
07GL070	7/4/2007	NAD27AK	06W	450175	7492977	3,941				
07GL071	7/4/2007	NAD27AK	06W	450089	7492957	3,813				
07GL072	7/4/2007	NAD27AK	06W	449997	7492892	3,770	115-25NE		115-70SW	
07GL073	7/5/2007	NAD27AK	06W	444516	7491786	3,515				
07GL074	7/5/2007	NAD27AK	06W	445228	7492267	4,141				
07GL075	7/5/2007	NAD27AK	06W	445240	7492282	4,141				
07GL076	7/5/2007	NAD27AK	06W	445286	7492299	4,201				
07GL077	7/6/2007	NAD27AK	06W	446828	7491266	4,481				
07GL078	7/6/2007	NAD27AK	06W	445010	7492176	4,224	115-27NE			
07GL079	7/6/2007	NAD27AK	06W	445095	7492217	4,175				
07GL080	7/6/2007	NAD27AK	06W	445348	7492155	4,092				
07GL081	7/6/2007	NAD27AK	06W	445516	7492071	3,914				
07GL082	7/7/2007	NAD27AK	06W	449229	7492296	4,302	150-40NE			
07GL083	7/7/2007	NAD27AK	06W	450109	7491917	4,678				
07GL084	7/7/2007	NAD27AK	06W	446786	7491301	4,465				
07GL085	7/8/2007	NAD27AK	06W	449874	7490477	3,655				

Station	Isoclinal Fold (F1)	Mineralized Fault	Station Description
07GL056			Qtz. Muscovite schist contact with Ab-calc green schist. West side of ridge.
07GL057			Top of knob. Horizontal to slightly north dipping
07GL058			Very dark gray Fe after pyrite to 10%. Looks like black schist.
07GL059			Quartz albite vein in graphitic gary schist. Minor gossan in vein.
07GL060			Dk gray qty muscovite schist.
07GL061			Quartz vein intruding joint. Fe Oxide to 25%.
07GL062			Ab-Act-Calc greenschist caps knob and is folded down slope. Black schist in center of folds.
07GL063			Dark gray quartz muscovite schist w/ elongate quartz lenses. Fe in foliation partings
07GL064			Gray quartz muscovite sericite schist. Quartz in laminated layers to 30%; black schist?
07GL065			FeOx altered gash veins to 10 cm. Thicker near upper Uranus drill hole. Quartz vugs, juicy; no arsenopyrite
07GL066	050-18NE		Layered quartz mica schist. Quartz boudin layer to 6 cm. Isoclinally folded. Meta quartz.
07GL066B			Micro thin Fe coating on joint faces of blocky bk. Schist.
07GL067			Isoclinally folded quartz. muscovite schist.
07GL068			Cross cutting mm thick quartz veins with FeOx alteration in rubble
07GL069			FeOx rich greenstone boulder in rubble.
07GL070			About 200m from start of cross cutting alt quartz veins parallel to joint sets. Widely spaced.
07GL071			Cross cutting veins exclusively sampled in Barker soil sample pit.
07GL072			Fe altered joint set is steeper and swinging to the west Wide spaced (1m) and isoclinally folded.
07GL073			Boulder of albite-actinolite-chlorite calc greenschist in rubble above road to Tobin Mill
07GL074			Mikado shear vein. Orange red matrix with quartz fragments; Heavy sample
07GL075			Cross cutting veins parallel to joint set
07GL076			Grab-channel across Mikado West vein. 2-3m including altered veined country rocks.
07GL077			Main surface exposure of Mikado vein. Sample for lapping and panning
07GL078			Blocky quartz mica schist with local dark gray calc schist
07GL079			Quartz vein with siderite. Iron oxide after pyrite
07GL080			Sulphide quartz vein intruding gray-black calc schist
07GL081			Sulphide-bearing calc schist, gray to blackish gray; cross cutting, N80W quartz veins
07GL082			Cross cutting quartz veins and intersection of concordant quartz veins is FeOx altered. Platy mica schist
07GL083			Silver gray muscovite schist with broken alt quartz veins at cirque rim with white alteration exposed.
07GL084			White oxide crust covers mica phyillite at Mikado; compare with Ratchet Ridge alteration
07GL085			Pan of Tonopah vein; one grain and 20 or more colors of gold

Station	Date	UTM Datum	UTM Zone	Easting	Northing	Elevation	Foliation (S1)	Cleavege (S2)	Joint 1	Joint 2
07GL086	7/8/2007	NAD27AK	06W	449820	7490506	3,740				
07GL087	7/8/2007	NAD27AK	06W	449612	7490297	3,809				
07GL088	7/8/2007	NAD27AK	06W	449997	7490280	3,800				
07GL089	7/8/2007	NAD27AK	06W	450514	7491044	3,950				
07GL090	7/9/2007	NAD27AK	06W	446844	7491286	4,480				
07GL091	7/9/2007	NAD27AK	06W	446845	7491291	4,477				
07GL092	7/9/2007	NAD27AK	06W	447404	7490882	4,628	90-32N		105-85SW	
07GL093	7/9/2007	NAD27AK	06W	447288	7490854	4,662				
07GL094	7/9/2007	NAD27AK	06W	447333	7490926	4,704	150-30NE		090-65S	
07GL095	7/10/2007	NAD27AK	06W	450826	7491796	3,939				
07GL096	7/10/2007	NAD27AK	06W	450861	7491813	3,945				
07GL097	7/10/2007	NAD27AK	06W	450767	7492088	4,208	135-36NE		010-Vert.	
07GL098	7/10/2007	NAD27AK	06W	07BT212						
07GL099	7/11/2007	NAD27AK	06W	449263	7491978	4,698	118-18NE		107-73SW	
07GL100	7/11/2007	NAD27AK	06W	449760	7491799	4,482	120-33NE		106-50SW	
07GL101	7/11/2007	NAD27AK	06W	449987	7491853	4,562				
07GL102	7/11/2007	NAD27AK	06W	449955	7491813	4,593	Horizontal		EW-Vert.	
07GL103	7/11/2007	NAD27AK	06W	449559	7494059	3,876				
07GL104	7/12/2007	NAD27AK	06W	450229	7493540	3,419	132-30NE		118-74SW	

Station	Isoclinal Fold (F1)	Mineralized Fault	Station Description
07GL086			Trench above creek of Tonopah vein. Pan of vein gossan contact had two colors
07GL087			Fe stained MnO quartz vein, SW of Tonopah vein. Rubble not moved far.
07GL088			Possible arsenopyrite in quartz vein. N40W to N65W
07GL089			Sericite limonite cross cutting quartz vein w/ pyrite crystals; Intrudes silver gray mica phyllite.
07GL090			Hematite altered anthopholite gray mica schist w/ pyrite and Au? In deformed quartz veins.
07GL091			Chip grab across exposed Mikado vein for correlation
07GL092	040-26NE		Meta turbidite (m-c) Locally silver anthopholite mica phyllite. Fe altered schist
07GL093			Quartz chlorite muscovite schist. Meta-turbidite schist; No quartz veins, or white alteration
07GL094	005-28NE		Altered quartz vein and pyrite bearing anthopholitic schist. Altered meta-turbidites. Foliation quartz.
07GL095			Meta turbidite, lots of meta sands. Qtz muscovite schist. White leached mineral. Possible sphalerite.
07GL096			White oxide altered schist and quartz. Possible extension of Ratchet cirque alteration rim.
07GL097			Calc schist w/ fresh pyrite lenses and nodules sampled. Layered w/ non-calc quartz muscovite schist.
07GL098			Non-calc greenstone, coarse pebble cong meta turbidites, calc schist over 40m of side hill.
07GL099			Graphite chlorite quartz muscovite phyllite. Dark gray platy and slick. Anthopholite? X cutting min joints.
07GL100			Limonite graphitic muscovite phyllite. Quartz veins Fe rich and concordant and X cutting foliation
07GL101			Hematite altered rubble; dark gray calc schist w/ pyrite-arsenopyrite? grains to 1 cm.
07GL102			Compositional layering of relect sandstone and fine mud/shale 30 degrees oblique to foliation.
07GL103			Isoclinally folded gray-black, quartz schist, meta-turbidite.
07GL104			Lumpy, platy mica schist with quartz boudins. Thin, >1cm, quartz veins in N64W joint set.

Appendix II Certified Analytical Results (#FAO7078149) and "Finalized" (but not Certified) Analytical Results #FA07075105, #FA07071254, and FA07131916 from ALS Chemex for Trace Element Analyses from Mineralized Zones, Chandalar Mining District, Alaska.

ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS USA Inc.
994 Glendale Avenue, Unit 3
Sparks NV 89431-5730
Phone: 775 356 5395 Fax: 775 355 0179 www.alschemex.com

To: **LITTLE SQUAW GOLD**
3412 S. LINCOLN
SPOKANE WA 99203

INVOICE NUMBER 1580363

BILLING INFORMATION

Certificate:	**FA07078149**
Sample Type:	**Rock**
Account:	**LITSQU**
Date:	**12-AUG-2007**
Project:	Chandalar
P.O. No.:	
Quote:	
Terms:	**Due on Receipt** C1
Comments:	

QUANTITY	ANALYSED FOR CODE	- DESCRIPTION	UNIT PRICE	TOTAL
1	BAT-01	Administration Fee	20.00	20.00
47	LOG-22	Sample login - Rcd w/o BarCode	0.90	42.30
47	PUL-31	Pulverize split to 85% <75 um	3.15	148.05
47	Au-AA23	Au 30g FA-AA finish	11.70	549.90
1	Au-GRA21	Au 30g FA-GRAV finish	15.30	15.30
47	ME-ICP41	35 Element Aqua Regia ICP-AES	5.40	253.80
47	GEO-AR01	Aqua regia digestion	2.70	126.90
84.96	CRU-31	Weight Charge (kg) - Fine crushing - 70% <2mm	0.35	29.74
47	CRU-31	Fine crushing - 70% <2mm	2.00	94.00
84.96	SPL-21	Weight Charge (kg) - Split sample - riffle splitter	0.25	21.24
47	SPL-21	Split sample - riffle splitter	1.00	47.00

SUBTOTAL (USD) $ 1,348.23

TOTAL PAYABLE (USD) $ 1,348.23

Tom - I assume you got an electronic copy of these results? If not, let me know. D

OK TO PAY
R.R.W.
8/19/07

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ATTN: RICHARD WALTERS
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SPOKANE WA 99203

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Sparks NV 89431-5730

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Address:	Vancouver BC CAN
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For transfers from USA banks use Intermediate Bank	
Intermediary Bank:	JP Morgan Chase Bank
Intermediary Address:	New York, NY, USA
Intermediary Routing:	ABA: 021000021

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Page: 2 - A
Total # Pages: 3 (A - C)
Finalized Date: 12-AUG-2007
Account: LITSQU

Project: Chandalar

CERTIFICATE OF ANALYSIS FA07078149

Sample Description	Method	WEI-21	Au-AA23	Au-GRA21	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Recvd Wt.	Au	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu
	Units	kg	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
	LOR	0.02	0.005	0.05	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1
LS07-4547		2.19	<0.005		0.2	1.65	15	<10	20	<0.5	<2	2.44	0.9	8	28	23
LS07-4548		1.90	<0.005		<0.2	0.14	<2	<10	10	<0.5	<2	0.84	<0.5	11	19	8
LS07-4549		1.58	0.008		<0.2	3.09	164	<10	70	<0.5	<2	2.50	0.9	31	39	59
LS07-4582		0.94	<0.005		<0.2	1.11	2	<10	40	<0.5	<2	0.31	<0.5	7	26	17
LS07-4583		2.45	0.008		0.2	2.19	43	<10	130	0.5	<2	0.05	<0.5	9	35	39
LS07-4584		2.24	0.032		0.5	1.56	628	<10	110	<0.5	<2	0.08	0.5	9	25	31
LS07-4585		1.33	0.005		<0.2	2.07	15	<10	80	<0.5	<2	3.16	0.6	24	30	53
LS07-4643		1.94	0.765		<0.2	1.57	>10000	<10	80	<0.5	<2	5.44	<0.5	38	23	29
LS07-4644		1.55	0.010		<0.2	1.72	68	<10	90	0.5	<2	0.19	<0.5	17	25	31
LS07-4645		1.05	0.453		0.2	2.55	423	<10	90	0.5	<2	0.21	<0.5	17	34	32
LS07-4646		1.72	<0.005		<0.2	2.63	29	<10	120	<0.5	<2	0.15	<0.5	11	35	28
LS07-4647		1.42	0.005		<0.2	1.89	4	<10	100	<0.5	<2	0.68	0.6	59	17	36
LS07-4648		1.62	0.123		0.3	0.35	754	<10	50	<0.5	<2	0.02	0.8	9	16	30
LS07-4649		1.61	0.831		<0.2	0.46	123	<10	40	<0.5	<2	0.02	<0.5	8	22	12
LS07-4650		2.63	3.52		1.5	1.03	670	<10	70	<0.5	3	0.10	1.6	21	18	39
LS07-4651		2.64	0.018		<0.2	0.69	446	<10	40	<0.5	<2	0.01	0.9	13	22	36
LS07-4652		2.04	0.264		<0.2	0.10	145	<10	10	<0.5	<2	<0.01	<0.5	4	20	24
LS07-4653		2.98	0.052		0.7	0.42	212	<10	30	<0.5	2	0.02	<0.5	2	29	12
LS07-4654		3.29	0.302		<0.2	0.08	928	<10	20	<0.5	<2	0.01	<0.5	2	26	8
LS07-4655		1.80	<0.005		0.2	0.92	4	<10	100	<0.5	<2	0.13	<0.5	2	25	10
LS07-4656		1.37	<0.005		<0.2	4.06	18	<10	40	<0.5	<2	0.06	<0.5	1	16	27
LS07-4657		1.87	0.005		0.2	1.00	13	<10	40	<0.5	<2	0.15	<0.5	2	18	38
LS07-4658		1.43	0.035		<0.2	0.94	76	<10	30	<0.5	<2	0.04	<0.5	2	15	44
LS07-4659		2.08	3.48		<0.2	0.20	1870	<10	20	<0.5	<2	0.07	<0.5	40	10	37
LS07-4660		2.06	0.154		0.7	2.34	323	<10	40	0.9	<2	0.38	3.1	19	27	78
LS07-4661		1.72	0.034		<0.2	1.60	507	<10	40	<0.5	<2	0.07	<0.5	14	21	38
LS07-4662		1.68	0.146		0.2	0.97	3850	<10	30	0.5	<2	0.07	0.5	4	15	26
LS07-4663		2.02	0.119		<0.2	2.33	58	<10	40	<0.5	<2	0.15	<0.5	14	35	38
LS07-4664		0.96	1.895		0.3	0.32	8480	<10	10	<0.5	<2	0.02	<0.5	21	12	13
LS07-4665		0.89	3.38		0.7	0.14	>10000	<10	10	<0.5	<2	<0.01	<0.5	14	9	189
LS07-4666		1.92	0.023		<0.2	0.03	565	<10	<10	<0.5	<2	0.01	<0.5	1	13	9
LS07-4667		1.82	0.115		<0.2	0.01	1330	<10	<10	<0.5	<2	<0.01	<0.5	1	16	8
LS07-4668		1.78	2.43		0.7	0.51	>10000	<10	10	<0.5	<2	0.02	<0.5	12	3	51
LS07-4675		1.44	0.028		0.4	1.03	404	<10	50	<0.5	<2	0.06	<0.5	4	26	28
LS07-4676		2.03	0.024		0.6	0.66	1350	<10	30	<0.5	<2	0.71	<0.5	9	24	34
LS07-4677		1.58	7.77		0.4	1.18	4450	<10	50	<0.5	<2	0.10	<0.5	13	26	33
LS07-4678		1.21	>10.0	15.45	2.7	0.96	4170	<10	60	<0.5	2	0.23	<0.5	15	23	32
LS07-4679		2.49	0.350		<0.2	0.23	557	<10	30	<0.5	<2	0.01	<0.5	8	40	19
LS07-4680		1.80	0.075		0.3	1.25	638	<10	20	0.5	4	0.01	0.8	13	27	74
LS07-4681		1.35	<0.005		0.3	1.00	30	<10	40	<0.5	<2	0.01	<0.5	9	28	56

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3412 S. LINCOLN
SPOKANE WA 99203

Finalized Date: 12-AUG-2007
Account: LITSQU

Project: Chandalar

CERTIFICATE OF ANALYSIS FA07078149

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
LS07-4547		3.40	<10	<1	0.09	20	0.77	830	<1	0.06	25	50	16	0.04	<2	3
LS07-4548		2.51	<10	<1	0.02	20	0.27	439	1	0.01	33	680	2	<0.01	<2	1
LS07-4549		5.40	10	1	0.18	40	1.67	1955	<1	0.10	80	4890	16	0.01	2	5
LS07-4582		2.69	<10	<1	0.13	10	0.51	316	<1	0.06	27	450	13	<0.01	<2	2
LS07-4583		5.25	10	<1	0.32	40	0.92	267	<1	0.05	24	460	13	0.02	<2	3
LS07-4584		3.25	<10	<1	0.24	30	0.56	197	<1	0.05	29	460	13	0.01	3	2
LS07-4585		4.86	<10	<1	0.28	70	1.67	953	<1	0.06	59	760	17	1.20	<2	5
LS07-4643		6.87	<10	<1	0.31	110	1.72	3480	1	0.08	74	1520	13	1.60	8	9
LS07-4644		4.19	<10	<1	0.27	30	0.81	644	1	0.03	57	660	5	0.35	2	3
LS07-4645		4.84	10	1	0.28	20	1.06	604	1	0.04	49	660	16	0.36	3	4
LS07-4646		5.05	10	1	0.31	10	1.06	384	1	0.06	33	710	3	0.09	<2	4
LS07-4647		3.85	<10	1	0.25	<10	0.64	209	1	0.06	75	580	10	1.52	2	3
LS07-4648		3.15	<10	<1	0.10	30	0.02	129	1	0.01	30	240	5	<0.01	12	1
LS07-4649		2.38	<10	<1	0.08	20	0.12	171	1	0.01	20	140	<2	<0.01	<2	1
LS07-4650		3.22	<10	<1	0.18	60	0.18	321	1	0.03	71	550	93	<0.01	31	2
LS07-4651		3.53	<10	<1	0.10	20	0.17	201	1	0.02	24	270	2	0.01	5	1
LS07-4652		2.36	<10	<1	0.01	<10	0.01	117	1	<0.01	9	90	<2	0.01	2	<1
LS07-4653		1.56	<10	<1	0.08	20	0.10	94	<1	0.01	5	220	26	0.01	3	1
LS07-4654		1.30	<10	<1	0.01	10	0.01	102	1	<0.01	6	50	<2	0.03	2	<1
LS07-4655		3.45	<10	<1	0.22	10	0.36	191	1	0.06	3	600	6	0.17	<2	2
LS07-4656		2.89	<10	1	0.09	10	0.63	188	1	0.01	8	520	6	1.67	2	4
LS07-4657		5.05	<10	<1	0.09	30	0.50	116	3	0.03	8	760	15	0.26	<2	2
LS07-4658		2.13	<10	<1	0.08	10	0.42	133	1	0.03	5	320	13	0.04	2	1
LS07-4659		3.98	<10	<1	0.04	10	0.02	862	<1	0.01	82	340	14	0.55	3	2
LS07-4660		5.61	10	1	0.09	40	0.93	472	1	0.01	77	630	59	0.30	7	3
LS07-4661		4.49	<10	<1	0.12	20	0.68	298	1	0.01	47	430	4	0.11	6	2
LS07-4662		2.91	<10	<1	0.08	20	0.20	120	1	0.01	32	330	3	0.08	4	3
LS07-4663		4.38	10	1	0.13	30	1.08	323	1	0.02	37	650	8	0.10	<2	3
LS07-4664		1.72	<10	<1	0.02	10	0.10	75	1	<0.01	21	70	5	0.24	6	1
LS07-4665		3.92	<10	1	0.02	10	<0.01	76	1	0.01	30	70	<2	1.50	17	3
LS07-4666		0.77	<10	<1	<0.01	<10	<0.01	39	<1	<0.01	3	30	5	<0.01	<2	1
LS07-4667		0.71	<10	1	<0.01	10	<0.01	34	<1	<0.01	2	40	<2	0.01	<2	1
LS07-4668		20.7	<10	<1	0.03	<10	0.01	383	2	0.01	8	180	14	7.69	118	3
LS07-4675		2.88	<10	1	0.11	20	0.37	133	1	0.01	10	570	30	0.03	2	2
LS07-4676		2.93	<10	<1	0.12	40	0.30	184	1	0.03	23	350	89	0.51	<2	1
LS07-4677		3.68	<10	<1	0.13	20	0.58	294	1	0.01	33	480	8	0.25	6	2
LS07-4678		3.98	<10	1	0.15	20	0.56	478	1	0.02	41	640	99	0.32	28	2
LS07-4679		1.89	<10	<1	0.03	10	0.03	115	1	<0.01	23	110	6	<0.01	6	<1
LS07-4680		4.95	<10	<1	0.03	20	0.02	169	1	0.01	82	290	87	0.13	9	2
LS07-4681		5.04	<10	<1	0.09	20	0.25	150	1	0.02	34	450	20	0.01	<2	2

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To: LITTLE SQUAW GOLD
3412 S. LINCOLN
SPOKANE WA 99203

Finalized Date: 12-AUG-2007
Account: LITSQU

Project: Chandalar

CERTIFICATE OF ANALYSIS FA07078149

Sample Description / Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
LS07-4547	44	<20	0.01	<10	<10	28	<10	64
LS07-4548	64	<20	<0.01	<10	<10	4	<10	21
LS07-4549	99	<20	0.01	<10	<10	47	<10	116
LS07-4582	27	<20	0.03	<10	<10	20	<10	46
LS07-4583	20	<20	0.01	<10	<10	31	<10	108
LS07-4584	20	<20	<0.01	<10	<10	24	<10	72
LS07-4585	131	<20	0.01	<10	<10	36	<10	98
LS07-4643	206	20	<0.01	<10	<10	26	<10	66
LS07-4644	17	<20	<0.01	<10	<10	32	<10	128
LS07-4645	20	<20	0.01	<10	<10	37	<10	139
LS07-4646	18	<20	0.04	<10	<10	40	<10	127
LS07-4647	35	<20	<0.01	<10	<10	19	<10	100
LS07-4648	3	<20	<0.01	<10	<10	5	<10	55
LS07-4649	4	<20	<0.01	<10	<10	8	<10	32
LS07-4650	24	<20	<0.01	<10	<10	15	<10	169
LS07-4651	8	<20	<0.01	<10	<10	13	<10	58
LS07-4652	<1	<20	<0.01	<10	<10	3	<10	11
LS07-4653	10	<20	<0.01	<10	<10	7	<10	18
LS07-4654	2	<20	<0.01	<10	<10	2	<10	6
LS07-4655	18	<20	<0.01	<10	<10	16	<10	30
LS07-4656	9	<20	<0.01	<10	<10	11	<10	51
LS07-4657	12	<20	<0.01	<10	<10	15	<10	78
LS07-4658	7	<20	<0.01	<10	<10	10	<10	41
LS07-4659	5	<20	<0.01	<10	<10	6	<10	178
LS07-4660	30	<20	<0.01	<10	<10	24	<10	169
LS07-4661	6	<20	<0.01	<10	<10	20	<10	112
LS07-4662	17	<20	<0.01	<10	<10	9	<10	55
LS07-4663	15	<20	0.02	<10	<10	35	<10	120
LS07-4664	5	<20	<0.01	<10	<10	5	<10	14
LS07-4665	7	<20	<0.01	<10	<10	1	<10	21
LS07-4666	2	<20	<0.01	<10	<10	<1	<10	4
LS07-4667	4	<20	<0.01	<10	<10	<1	<10	<2
LS07-4668	8	<20	<0.01	<10	<10	5	<10	57
LS07-4675	8	<20	<0.01	<10	<10	23	<10	60
LS07-4676	64	<20	<0.01	<10	<10	10	<10	37
LS07-4677	9	<20	<0.01	<10	<10	21	<10	84
LS07-4678	18	<20	<0.01	<10	<10	21	<10	121
LS07-4679	4	<20	<0.01	<10	<10	4	<10	58
LS07-4680	4	<20	<0.01	<10	<10	5	<10	107
LS07-4681	5	<20	<0.01	<10	<10	14	<10	100

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To: LITTLE SQUAW GOLD
3412 S. LINCOLN
SPOKANE WA 99203

Finalized Date: 12-AUG-2007
Account: LITSQU

Project: Chandalar

CERTIFICATE OF ANALYSIS FA07078149

Sample Description	Method	WEI-21	Au-AA23	Au-GRA21	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Recvd Wt.	Au	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu
	Units	kg	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
	LOR	0.02	0.005	0.05	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1
LS07-4682		1.97	0.070		<0.2	0.25	378	<10	10	<0.5	<2	<0.01	0.8	6	37	11
LS07-4683		1.44	0.008		<0.2	0.03	129	<10	<10	<0.5	<2	<0.01	<0.5	2	36	9
LS07-4684		2.34	<0.005		<0.2	1.95	19	<10	30	<0.5	<2	0.27	<0.5	22	38	69
LS07-4685		1.82	0.010		2.3	1.03	16	<10	40	<0.5	4	1.12	2.4	19	32	79
LS07-4686		2.75	4.45		7.2	0.30	8730	<10	20	<0.5	<2	0.02	<0.5	5	16	16
LS07-4687		0.76	0.017		0.7	2.25	38	<10	30	<0.5	<2	2.80	<0.5	53	33	76
LS07-4688		1.46	0.114		0.2	1.12	241	<10	30	<0.5	<2	0.17	<0.5	18	39	30

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Page: 3 - B
Total # Pages: 3 (A - C)
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CERTIFICATE OF ANALYSIS FA07078149

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
LS07-4682		1.66	<10	<1	0.01	10	<0.01	95	1	<0.01	13	70	<2	<0.01	5	<1
LS07-4683		1.15	<10	<1	<0.01	<10	<0.01	65	<1	<0.01	4	20	103	<0.01	3	<1
LS07-4684		4.57	10	1	0.11	20	0.94	517	1	0.05	64	1110	19	<0.01	2	5
LS07-4685		5.09	<10	<1	0.15	20	0.73	744	1	0.04	40	1480	361	1.40	2	3
LS07-4686		1.85	<10	<1	0.06	10	0.03	62	1	0.01	22	170	9	0.39	15	1
LS07-4687		4.26	10	<1	0.09	40	1.03	2650	1	0.06	153	1270	62	0.52	3	5
LS07-4688		2.51	<10	<1	0.04	30	0.54	356	1	0.01	56	730	4	0.02	2	2

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CERTIFICATE OF ANALYSIS FA07078149

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
LS07-4682		4	<20	<0.01	<10	<10	2	<10	25
LS07-4683		<1	<20	<0.01	<10	<10	1	<10	6
LS07-4684		57	<20	0.04	<10	<10	34	<10	101
LS07-4685		34	<20	<0.01	<10	<10	29	<10	87
LS07-4686		13	<20	<0.01	<10	<10	7	<10	28
LS07-4687		99	<20	<0.01	<10	<10	34	<10	142
LS07-4688		11	<20	0.01	<10	<10	17	<10	68

FA07071254 - Finalized
CLIENT : "LITSQU - Little Squaw Gold"
# of SAMPLES : 37
DATE RECEIVED : 2007-07-09 DATE FINALIZED : 2007-07-25
PROJECT : "Chandalar"
CERTIFICATE COMMENTS : ""
PO NUMBER : " "

	WEI-21	Au-AA23	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
SAMPLE	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be
DESCRIPT	kg	ppm	ppm	%	ppm	ppm	ppm	ppm
LS07-4515	0.93	<0.005	<0.2	2.79	32	<10	90	<0.5
LS07-4516	1.09	<0.005	0.3	2.05	8	<10	50	<0.5
LS07-4517	1.97	<0.005	0.2	2.42	40	<10	90	<0.5
LS07-4518	1.49	0.007	<0.2	2	458	<10	80	<0.5
LS07-4519	0.58	<0.005	0.4	1.94	9	<10	90	<0.5
LS07-4520	1.63	<0.005	<0.2	5.04	41	<10	30	<0.5
LS07-4521	1.63	0.027	<0.2	2.16	97	<10	20	<0.5
LS07-4522	2.01	<0.005	<0.2	1.06	284	<10	100	<0.5
LS07-4523	1.52	<0.005	<0.2	2.76	161	<10	40	<0.5
LS07-4524	0.58	<0.005	<0.2	1.94	12	<10	70	<0.5
LS07-4525	1.36	<0.005	<0.2	1.77	14	<10	80	<0.5
LS07-4526	0.85	<0.005	<0.2	1.47	23	<10	20	<0.5
LS07-4527	0.65	<0.005	0.4	2.37	14	<10	90	<0.5
LS07-4528	0.8	0.03	0.5	1.84	324	<10	90	<0.5
LS07-4529	1.2	<0.005	<0.2	1.51	39	<10	90	<0.5
LS07-4530	1.06	<0.005	<0.2	1.8	19	<10	30	<0.5
LS07-4531	0.74	0.011	5	2.09	<2	<10	50	0.7
LS07-4532	1.11	<0.005	<0.2	2.56	26	<10	100	<0.5
LS07-4533	2.11	<0.005	0.6	2	54	<10	90	<0.5
LS07-4534	1.83	<0.005	<0.2	1.61	5	<10	60	<0.5
LS07-4535	1.41	<0.005	0.2	0.52	5	<10	10	<0.5
LS07-4536	0.74	0.024	<0.2	0.83	15	<10	60	<0.5
LS07-4537	1.23	1.4	0.4	2	1055	<10	90	<0.5
LS07-4538	0.75	0.169	0.3	2.46	114	<10	100	<0.5
LS07-4539	1.05	0.153	<0.2	2.38	121	<10	90	<0.5
LS07-4540	0.89	0.007	<0.2	2.45	12	<10	90	<0.5
LS07-4541	1.17	0.081	<0.2	1.95	411	<10	90	<0.5
LS07-4542	0.93	0.04	<0.2	2.03	82	<10	70	<0.5
LS07-4543	1.38	0.01	<0.2	0.33	14	<10	10	<0.5
LS07-4544	1.23	<0.005	<0.2	3.01	15	<10	120	<0.5
LS07-4545	1.58	0.005	0.3	0.8	10	<10	40	<0.5
LS07-4546	1.58	<0.005	<0.2	0.2	9	<10	10	<0.5
LS07-4575	1.58	0.005	<0.2	0.86	170	<10	50	<0.5
LS07-4576	0.98	0.007	0.3	0.75	35	<10	40	<0.5
LS07-4579	1.2	<0.005	0.2	2.2	41	<10	130	0.5
LS07-4580	1.63	0.029	<0.2	0.11	165	<10	10	<0.5
LS07-4581	1.69	0.009	<0.2	0.72	17	<10	30	<0.5

ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg
ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm
<2	0.25	<0.5	17	33	42	5.26	10	2
<2	1.67	<0.5	17	58	53	4	10	<1
<2	0.09	<0.5	9	35	39	4.98	10	1
<2	0.06	<0.5	9	36	38	5.38	10	<1
<2	0.04	<0.5	5	34	39	4.71	10	<1
<2	0.13	<0.5	32	169	100	7.79	10	<1
<2	3.03	<0.5	22	47	135	4.34	10	1
<2	0.05	<0.5	3	32	35	3.01	<10	1
<2	2.17	<0.5	33	198	24	4.09	10	<1
<2	0.15	0.6	117	29	166	5.66	<10	<1
<2	0.14	<0.5	24	32	58	4.46	<10	1
<2	5.7	<0.5	14	67	18	3.57	10	<1
<2	0.2	<0.5	20	54	72	4.89	10	1
2	0.29	<0.5	8	50	26	3.85	10	<1
<2	0.07	<0.5	4	40	27	3.59	<10	<1
<2	5.38	<0.5	17	35	42	3.73	10	2
14	0.19	<0.5	7	39	169	8.41	10	<1
<2	0.11	<0.5	7	56	28	5.85	10	<1
<2	0.27	<0.5	26	42	46	4.06	10	1
<2	0.11	<0.5	14	38	32	2.6	<10	<1
<2	0.04	<0.5	3	49	14	1.7	<10	<1
<2	0.26	<0.5	3	50	18	2.37	<10	<1
<2	0.16	<0.5	8	44	31	4.22	10	<1
<2	0.1	<0.5	7	38	46	4.92	10	<1
<2	0.2	<0.5	9	42	37	4.7	10	<1
<2	0.13	<0.5	10	35	42	5.62	10	<1
<2	0.14	<0.5	14	34	42	4.61	10	<1
<2	0.25	<0.5	12	38	32	4.1	10	<1
<2	9.32	<0.5	6	18	4	6.22	<10	<1
<2	0.11	<0.5	7	42	30	5.95	10	<1
<2	0.09	<0.5	5	47	34	3.02	<10	1
<2	0.01	<0.5	2	54	15	1.39	<10	1
<2	0.04	<0.5	4	40	16	2.65	<10	<1
<2	0.02	<0.5	2	30	32	2.82	<10	1
<2	0.04	<0.5	5	40	34	4.59	10	<1
<2	0.01	<0.5	7	65	13	1.03	<10	<1
<2	0.02	<0.5	2	55	21	2.21	<10	1

ME-ICP41 K %	ME-ICP41 La ppm	ME-ICP41 Mg %	ME-ICP41 Mn ppm	ME-ICP41 Mo ppm	ME-ICP41 Na %	ME-ICP41 Ni ppm	ME-ICP41 P ppm	ME-ICP41 Pb ppm
0.29	30	1	476	1	0.04	53	970	7
0.18	20	1.16	635	1	0.04	38	1140	52
0.28	20	0.97	310	2	0.05	25	650	26
0.22	40	0.75	409	3	0.04	36	590	11
0.24	20	0.81	264	2	0.05	15	630	36
0.01	<10	3.52	541	1	0.02	184	560	2
0.01	<10	1.33	422	1	0.03	84	460	5
0.17	20	0.33	151	<1	0.02	12	350	28
0.04	10	3.07	930	<1	0.01	140	200	6
0.18	30	0.71	2190	1	0.05	209	830	22
0.2	10	0.69	482	1	0.05	54	750	25
0.08	10	1.26	1085	<1	0.05	36	2180	7
0.24	30	0.98	586	1	0.07	51	820	59
0.22	40	0.65	272	1	0.04	32	880	85
0.23	20	0.44	156	1	0.04	15	410	6
0.05	30	0.86	2590	1	0.13	40	1010	10
0.13	150	0.91	315	1	0.15	19	1690	1105
0.26	20	1.01	298	1	0.06	30	710	21
0.28	40	0.77	586	1	0.04	52	740	82
0.14	40	0.45	208	<1	0.12	38	460	13
0.04	<10	0.22	94	<1	0.01	16	230	27
0.18	10	0.29	137	1	0.03	13	970	16
0.28	20	0.77	302	<1	0.05	31	660	40
0.33	50	0.95	266	1	0.06	27	660	20
0.29	20	0.96	304	1	0.05	38	940	16
0.3	20	0.92	303	<1	0.05	32	660	20
0.28	20	0.7	285	1	0.05	42	710	6
0.23	20	0.76	407	1	0.05	36	680	10
0.01	10	2.9	4910	1	0.01	16	50	7
0.26	40	1.33	543	2	0.05	26	750	4
0.08	10	0.16	94	1	0.05	13	130	13
0.03	<10	0.02	55	1	0.03	7	60	4
0.1	20	0.29	113	1	0.05	19	270	17
0.09	10	0.09	56	1	0.1	5	210	21
0.27	40	0.78	284	1	0.06	17	510	8
0.01	10	0.02	102	<1	0.01	20	40	<2
0.06	10	0.24	104	<1	0.02	10	180	7

ME-ICP41 S %	ME-ICP41 Sb ppm	ME-ICP41 Sc ppm	ME-ICP41 Sr ppm	ME-ICP41 Th ppm	ME-ICP41 Ti %	ME-ICP41 Tl ppm	ME-ICP41 U ppm	ME-ICP41 V ppm
0.01	4	4	22	<20	0.01	<10	<10	38
0.02	2	8	45	<20	0.05	<10	<10	67
0.03	<2	3	19	<20	0.01	<10	<10	31
0.04	<2	3	18	<20	<0.01	<10	<10	31
0.05	<2	3	20	<20	<0.01	<10	<10	29
0.02	<2	21	14	<20	0.03	<10	<10	153
<0.01	<2	10	90	<20	0.01	<10	<10	68
0.01	<2	2	13	<20	<0.01	<10	<10	18
<0.01	<2	11	60	<20	0.01	<10	<10	64
0.08	<2	3	18	<20	<0.01	<10	<10	21
0.04	<2	3	21	<20	<0.01	<10	<10	23
<0.01	2	7	264	<20	0.01	<10	<10	36
0.03	17	3	24	<20	<0.01	<10	<10	39
0.02	<2	3	19	<20	0.01	<10	<10	30
0.03	<2	2	17	<20	0.01	<10	<10	26
0.01	2	5	277	<20	0.03	<10	<10	37
0.31	4	9	49	20	0.01	<10	<10	50
0.04	3	4	23	<20	0.01	<10	<10	41
<0.01	<2	3	16	<20	<0.01	<10	<10	27
<0.01	5	2	22	<20	0.01	<10	<10	20
0.01	<2	1	3	<20	<0.01	<10	<10	8
0.04	<2	1	33	<20	0.01	<10	<10	13
0.14	2	3	17	<20	<0.01	<10	<10	32
0.04	<2	3	28	<20	<0.01	<10	<10	35
0.07	<2	3	17	<20	0.01	<10	<10	36
0.01	<2	4	25	<20	0.02	<10	<10	36
0.03	2	3	23	<20	<0.01	<10	<10	32
0.06	6	3	16	<20	<0.01	<10	<10	33
0.04	<2	16	178	<20	<0.01	<10	<10	12
0.03	<2	3	34	<20	0.01	<10	<10	41
0.22	<2	1	17	<20	<0.01	<10	<10	7
0.02	<2	<1	5	<20	<0.01	<10	<10	2
0.06	<2	1	19	<20	<0.01	<10	<10	10
0.16	<2	1	28	<20	<0.01	<10	<10	7
0.05	<2	3	23	<20	<0.01	<10	<10	30
0.01	<2	<1	5	<20	<0.01	<10	<10	2
0.01	2	1	6	<20	<0.01	<10	<10	11

FA07075105 - Finalized
CLIENT : "LITSQU - Little Squaw Gold"
# of SAMPLES : 19
DATE RECEIVED : 2007-07-16 DATE FINALIZED : 2007-08-06
PROJECT : "Chandalar"
CERTIFICATE COMMENTS : ""
PO NUMBER : " "

SAMPLE DESCRIPT	WEI-21 Recvd Wt. kg	Au-AA23 Au ppm	ME-ICP41 Ag ppm	ME-ICP41 Al %	ME-ICP41 As ppm	ME-ICP41 B ppm	ME-ICP41 Ba ppm	ME-ICP41 Be ppm
LS07-4669	1.41	0.007	0.2	0.65	9	<10	80	<0.5
LS07-4670	1.03	0.005	0.2	0.72	86	<10	60	<0.5
LS07-4671	2.81	<0.005	<0.2	1.29	<2	<10	20	<0.5
LS07-4672	1.6	<0.005	<0.2	2.23	3	<10	50	0.5
LS07-4689	1.44	<0.005	<0.2	1.41	<2	<10	60	<0.5
LS07-4690	1.16	<0.005	<0.2	1.54	3	<10	70	<0.5
LS07-4691	0.78	<0.005	<0.2	2.15	11	<10	10	<0.5
LS07-4692	1.16	<0.005	<0.2	2.03	8	<10	120	<0.5
LS07-4693	1.77	<0.005	<0.2	0.97	<2	<10	20	<0.5
LS07-4694	1.29	0.013	<0.2	1.47	17	<10	20	<0.5
LS07-4695	1.46	0.113	0.3	2.31	449	<10	80	<0.5
LS07-4696	2.43	<0.005	0.2	2.07	11	<10	70	<0.5
LS07-4697	1.76	0.016	<0.2	2.04	670	<10	110	<0.5
LS07-4700	1.85	0.322	<0.2	0.36	2100	<10	30	<0.5
LS07-4701	1.74	<0.005	<0.2	1.16	7	<10	40	<0.5
LS07-4702	2.28	0.639	0.2	0.6	1330	<10	50	<0.5
LS07-4703	2.09	<0.005	<0.2	1.32	21	<10	50	<0.5
LS07-4704	1.57	<0.005	<0.2	1.61	8	<10	60	<0.5
LS07-4705	1.64	0.135	82.1	0.01	1030	<10	<10	<0.5

ME-ICP41 Bi ppm	ME-ICP41 Ca %	ME-ICP41 Cd ppm	ME-ICP41 Co ppm	ME-ICP41 Cr ppm	ME-ICP41 Cu ppm	ME-ICP41 Fe %	ME-ICP41 Ga ppm	ME-ICP41 Hg ppm
<2	0.01	<0.5	8	12	50	5.56	<10	<1
<2	0.07	<0.5	6	11	97	5.85	<10	<1
<2	0.3	<0.5	7	17	35	2.92	<10	<1
<2	0.08	<0.5	11	19	60	4.35	<10	<1
<2	0.13	0.5	15	25	19	3.11	<10	1
<2	1.3	<0.5	13	22	30	2.97	<10	<1
<2	6.67	<0.5	18	42	34	4.1	10	<1
<2	0.35	<0.5	23	21	69	3.52	<10	<1
<2	0.02	<0.5	3	15	69	3.55	<10	<1
<2	6.66	0.5	18	19	72	5.48	<10	<1
<2	0.14	1.3	37	30	92	4.49	10	<1
<2	0.16	0.6	11	29	43	4.3	10	<1
<2	0.13	0.5	9	27	35	4.09	<10	<1
<2	0.01	<0.5	<1	15	12	2.16	<10	<1
<2	0.04	<0.5	3	23	16	2.77	<10	<1
<2	0.02	<0.5	3	11	49	2.45	<10	<1
<2	1.59	<0.5	9	22	46	3.21	<10	<1
<2	0.28	<0.5	10	27	35	3.49	<10	<1
127	<0.01	11.1	1	12	10	0.57	<10	<1

ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
K	La	Mg	Mn	Mo	Na	Ni	P	Pb
%	ppm	%	ppm	ppm	%	ppm	ppm	ppm
0.22	20	0.06	123	1	0.02	26	450	66
0.14	10	0.13	111	<1	0.01	17	630	11
0.06	10	0.34	131	<1	<0.01	30	300	14
0.11	10	0.41	202	<1	<0.01	51	420	16
0.17	20	0.62	404	<1	0.02	49	480	8
0.22	30	0.64	578	<1	0.01	38	1010	42
0.05	20	1.13	2080	<1	0.03	54	960	33
0.29	70	0.69	278	<1	0.03	63	510	7
0.03	<10	0.2	97	<1	0.02	16	330	16
0.08	20	1.6	2850	<1	0.04	40	1180	37
0.28	40	0.91	476	<1	0.03	99	680	21
0.2	30	0.83	303	<1	0.02	44	590	17
0.24	20	0.82	244	<1	0.03	40	620	20
0.06	10	0.09	95	<1	<0.01	5	160	4
0.11	10	0.48	163	<1	<0.01	9	320	8
0.1	10	0.02	77	1	<0.01	19	250	14
0.18	20	0.69	447	<1	0.02	35	560	27
0.16	30	0.65	247	<1	0.02	41	480	18
<0.01	<10	<0.01	37	<1	<0.01	2	<10	>10000

ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
S	Sb	Sc	Sr	Th	Ti	Tl	U	V
%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
0.01	<2	2	11	<20	<0.01	<10	<10	14
0.14	<2	2	10	20	<0.01	<10	<10	9
0.33	<2	2	9	<20	<0.01	<10	<10	17
0.3	3	4	7	<20	<0.01	<10	<10	39
<0.01	<2	3	16	<20	0.03	<10	<10	23
<0.01	2	3	47	<20	0.01	<10	<10	21
0.07	2	4	172	<20	0.01	<10	<10	38
0.01	<2	3	16	20	0.04	<10	<10	31
0.01	<2	2	5	<20	<0.01	<10	<10	11
1.76	<2	5	428	<20	<0.01	<10	<10	25
0.08	<2	3	18	<20	<0.01	<10	<10	30
<0.01	3	2	15	<20	<0.01	<10	<10	28
0.02	3	2	23	<20	<0.01	<10	<10	30
0.02	<2	1	4	<20	<0.01	<10	<10	7
0.02	<2	2	6	<20	0.01	<10	<10	18
0.14	2	1	7	<20	<0.01	<10	<10	9
0.09	<2	3	92	<20	0.01	<10	<10	19
<0.01	2	2	17	<20	0.01	<10	<10	25
0.18	13	<1	2	<20	<0.01	<10	<10	<1

FA07131916 - Preliminary
CLIENT : "QOK - Pacific Rim Geological Consulting"
# of SAMPLES : 7
DATE RECEIVED : 2007-11-13 DATE FINALIZED :
PROJECT : "Nolan"
CERTIFICATE COMMENTS : ""
PO NUMBER : " "

	WEI-21	Au-AA25	Au-GRA21	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
SAMPLE	Recvd Wt.	Au	Au	Ag	Al	As	B	Ba
DESCRIPT	kg	ppm	ppm	ppm	%	ppm	ppm	ppm
203443	0.67	4.8		0.7	0.04	15	<10	<10
203444	1.91	2.73		0.7	0.03	>10000	<10	<10
203445	0.16	>100	68.2	8.2	0.07	>10000	<10	<10
203446	0.68	8.61		1.7	0.17	>10000	<10	20
203447	1.36	0.89						
203448	0.49	0.69		0.3	0.01	9780	<10	<10
203449	1.86	2.5		1.2	0.86	1210	<10	100

ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga
ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm
<0.5	<2	0.36	<0.5	1	13	14	1.06	<10
<0.5	2	<0.01	<0.5	2	22	5	2.58	<10
<0.5	5	0.02	<0.5	227	9	15	15.8	<10
<0.5	4	<0.01	<0.5	9	9	26	11.15	<10
<0.5	2	0.01	<0.5	1	22	11	2.06	<10
<0.5	<2	0.04	2	21	23	37	3.69	<10

ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
Hg	K	La	Mg	Mn	Mo	Na	Ni	P
ppm	%	ppm	%	ppm	ppm	%	ppm	ppm
<1	0.01	<10	0.15	199	<1	<0.01	7	20
<1	0.01	<10	<0.01	101	1	<0.01	3	20
<1	0.07	10	0.01	157	5	0.01	160	100
<1	0.05	<10	<0.01	98	<1	0.01	6	160
<1	<0.01	<10	<0.01	98	1	<0.01	4	30
<1	0.21	90	0.02	302	1	0.02	63	300

ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
Pb	S	Sb	Sc	Sr	Th	Ti	Tl	U
ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm
<2	8.13	>10000	<1	27	<20	<0.01	<10	<10
34	0.46	1110	<1	1	<20	<0.01	10	<10
7	5.93	8010	1	104	<20	<0.01	<10	<10
84	5.48	296	1	7	<20	<0.01	10	<10
10	0.15	18	<1	1	<20	<0.01	<10	<10
52	0.03	68	2	40	<20	<0.01	<10	<10

ME-ICP41	ME-ICP41	ME-ICP41	ME-OG62	ME-OG62
V	W	Zn	As	Sb
ppm	ppm	ppm	%	%
2	<10	26	0.018	15.95
1	<10	10		
4	<10	22	18.1	0.87
6	<10	20	11.65	0.019
			0.781	0.037
1	<10	8	0.922	0.003
15	<10	323	0.098	0.007

Appendix III Preliminary Descriptive Results from Microprobe Analyses of Mineralized Rock and Panned Concentrates, Chandalar District, Alaska

Cannon Microprobe
1041 NE 100th Street - Seattle, WA 98125 - 206 522 9233 - bart@cannonmicroprobe.com

ELECTRON MICROPROBE and
SCANNING ELECTRON MICROSCOPE ANALYSIS of
ORE SAMPLES

Invoice # 2007-195
December 01, 2007

Tom Bundtzen
Pacific Rim Geological Consulting, Inc.
Box 81906
Fairbanks, AK USA 99708

Description of Samples
11 hand samples and one fine drilling pulp.

Purpose of Analysis
Characterize precious and base metal mineralogy.

Sample Preparation
Mount sections in casting resin. Grind and polish to show the mineral phases in cross section. Coat each polished thick section with 40 angstroms of evaporated carbon to create an electrically conductive surface. Sample preparation for x-ray spectrum acquisition consists of compressing sample powders into brass cylinders and evaporating a conductive carbon film onto the surface of the compressed powders.

Electron Microprobe Instrumentation and Operating Conditions.
Analyze in an ARL SEMQ electron microprobe equipped with 6 wavelength dispersive x-ray spectrometers, a Robinson full television rate back scattered electron detector, DigiSem digital image acquisition, KEVEX / PGT MCA 4000 EDS detector system.

Analysis Method
Survey the sample at 300 X using back scattered electron imaging which shows compositional variation using atomic number as the video contrast basis. Seek carbonate grains by video contrast and then by quick EDS (energy dispersive x-ray micro-analysis).

Obtain scanning electron microscope back-scattered electron (SEM BSE) images using DigiSem digital acquisition hardware and software. Atomic number is the contrast source in the images.

Cannon Microprobe internal reference numbers are in parentheses.

Analyst
The analyst on all instruments and the author of the report was Bart Cannon

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R E S U L T S

07BT202 Chandalar C- 3 ---

Rusty quartz vein with Mn bearing ankerite and white globules of alunogen.

SEM BSE Photos
01 = White globule (xrs 01)
02 = Xenotime (xrs 02)

X-Ray Spectra
01 = White globule in SEM photo 01
02 = Xenotime in SEM photo 02
03 = Ankerite in SEM photo 02

LS – L4 H9 S 26 Chandalar C- 3 ---

Concentrate from RC drill hole testing a placer deposit.

The black sub-metallic grains are high quality ilmenites.

07BT 225 Chandalar C- 3 --

Arsenopyrite and coarse galena. No precious metal bearing phases could be found.

SEM BSE Photos
01 = Arsenopyrite and galena in veinlets of scorodite.
02 = Galena, arsenopyrite and anglesite.
03 = Galena with anglesite on cleavage partings.

07 BT 166 Chandalar C – 3 --

Arsenopyrite infiltrating quartz and schist.

SEM BSE Photos
01 = Arsenopyrite with networks of scorodite in quartz.
02 = Scorodite infiltrating muscovite schist.
03 = Filamentous scorodite in arsenopyrite fracture.

07 BT 182 Chandalar C - 3 ---

Neither rock fragment contains any trace of an efflorescene or leachate. One fragment has some gray mica rich clay on it.

07 BT 179   Chandalar   C - 3 --

Distinctive white "leachate" = Magnesium sulfate. Possible epsomite.

SEM BSE PHOTOS
01 = Surface of magnesium sulfate showing dessication cracking.

X-Ray Spectra
01 = Distinctive white "leachate" in SEM photo 01.

07 BT 163   Chandalar C – 3 ---

Distinctive white "leachate". Aluminum sulfate such as alunogen. Also gypsum and iron hydroxides.

SEM BSE PHOTOS
01 = Aluminum sulfate (xrs 01)

X-Ray Spectra
01 = Bright white phase shown in SEM photo 01

O7 BT 196   Chandalar C – 3 ---

Arsenopyrite, scorodite, iron hydroxides and quartz

SEM BSE Photos
01 = Serrated arsenopyrite crystals with quartz filling.
02 = Network of alteration fracture with scorodite filling.

07 BT 189   Chandalar C – 3 ---

Concentrate from Indicate Tonopah extension. Gold, chalcopyrite, pyrite, gudmundite (FeSbS2), Fe hydroxide replacements after sulfides, and fairly common monazite Ce.

SEM BSE PHOTOS
01 = Gudmundite free grain (xrs 02)
02 = Gold (xrs 02) in Fe hydroxide aggregate.
03 = Monazite Ce.
04 = Cerite. (xrs 01)

X-Ray Spectra
01 = Cerite in SEM photo 04

07 BT 199   Chandalar C – 3 --

Thin sulfide quartz stockwork from hanging wall of Mikado.

Pyrite, rare arsenopyrite, and quartz. No precious metal bearing phases.

SEM BSE Photos
01 = Arsenopyrite inclusions in pyrite.
02 = Pyrite euhedron, arsenic bearing Fe hydroxide, muscovite.

07 BT 203 Chandalar C – 3 --

Arsenopyrite in pale green scorodite.

SEM Photos
01 = Arsenopyrite, scorodite, sulfur.
02 = Arsenopyrite, scorodite, quartz.
03 = Sarmientite / zykaite. (xrs 01)
04 = Arsenopyrite, scorodite.

X Ray Spectra
01 = Sarmientite in SEM photo 03.

Hi Tom,

I've looked at the four new "ilmenite" concentrates. The ilmenites are all high quality, high TiO_2, but these concentrates all have lower concentrations of ilmenite than the first one you sent. Monazite is rare, and that is good since it often contains troublesome uranium and thorium. There is no zircon which is a bit of a drawback since is usually present and adds value.

I will prepare the report in the same manner that I used when working for RTZ.

Here is a little summary.zzzzzzzzzz

LS L-3 "Fluvial Sample"
Sulfide rich. Pyrite, pyrrhotite, galena. Ilmenite if very uncommon compared to L-5 and L-10. A few grains of monazite were encountered.

LS L-5 "Non Mag Pan Con, Bedrock Sample"
Uncommon high titanium ilmenite. Some monazite. Rare titanite, but this contribute to the bulk TiO_2 concentration of the sample, but not to the TiO_2 value.

LS L-8.6 "Non Mag Pan Con, Bedrock Sample"
High titanium ilmenite is common. Rare rutile.

LS L-10 "Non Mag Pan Con, Bedrock Sample"
High titanium ilmenites are rather common, but there is considerable pyrite and thus the consequent dilution of the concentrate. Rare birdshot.

APPENDIX IV

CERTIFICATE OF QUALIFIED PERSON

THOMAS K. BUNDTZEN
Pacific Rim Geological Consulting, Inc.
P.O. Box 81906, Fairbanks, Alaska 99708
Phone 907-458-8951 Fax 907-458-8511 Email Bundtzen@mosquitonet.com

I, THOMAS K. BUNDTZEN, A PROFESSIONAL GEOLOGIST, HEREBY CERTIFY:

1) I am currently a consulting economic geologist employed by and President of Pacific Rim Geological Consulting, Inc., P.O. Box 81906, Fairbanks, Alaska 99708, USA, which is an Alaskan 'S' corporation;
2) I am a graduate of the University of Alaska-Fairbanks, with a B.S. degree in Geology (School of Mineral Industry, 1973). I am also a graduate of the University of Alaska-Fairbanks, with a M.S. Degree in Economic Geology (Department of Geology and Geophysics, 1981);
3) I am Certified Professional Geologist CPG-10912 with the American Institute of Professional Geologists (AIPG);
4) I am currently a member of the Society of Economic Geology (since 1980; and 1998), the Geological Society of America (since 1974), the American Association for the Advancement of Science (since 1982), the Alaska Miners Association (since 1975), the Alaska Geological Society (since 1990), the Yukon Chamber of Mines (since 1995), the Prospectors and Developers Association of Canada or PDAC (since 1999), and Secretary of the Alaska Mining Hall of Fame Foundation (since 1997);
5) From November, 2003, to November, 2005, I served as Statewide President of the Alaska Miners Association;
6) Since receiving my Bachelors Degree, I have practiced the field of economic geology for 34 years in Alaska, the Russian Far East, NW Canada, Scandinavia, and New Zealand; have published reports and geological maps with the State of Alaska, Division of Geological and Geophysical Surveys, the U.S. Geological Survey, the Journal of Economic Geology, the Journal of Geology, Tectono-Physics, and the Alaska Miners Association, and since 1997, have prepared numerous unpublished reports and peer-reviewed papers for both private and public concerns;
7) I have read the definition of "qualified person" set out in Canadian National Instrument 43-101 (NI43-101) and certify that by reason of my education and affiliation with professional organizations (as defined by NI43-101), and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI43-101, and am also qualified to complete this report under rules stated by the United States Securities and Exchange Commission;
8) During June 30 to July 12, 2007, I conducted geological investigations in the Chandalar Mining District of the Southern Brooks Range, Alaska. On December 30th, 2007, I prepared the Technical Report--*Detailed Geologic Mapping and Structural Analysis of Gold Deposits in Chandalar Mining District, Northern Alaska* for Little Squaw Gold Mining Company, Inc.
9) I do not own stock or any other financial interest in Little Squaw Gold Mining Company, Inc. (LSGMC) , nor hold any financial interests in any properties located in the Chandalar district of northern Alaska;
10) I am not aware of any material fact or material change with respect to the subject matter of this Technical Report that is not reflected in the Technical report, the omission to disclose which would make the above referenced Technical Report misleading.

SIGNED AND DATED in Fairbanks, Alaska, December 30th, 2007

Thomas K. Bundtzen, P.Geo., BS, MS, CPG-10912, ABSLN #279639

Thomas K. Bundtzen 12/30/07

AMERICAN INSTITUTE OF PROFESSIONAL GEOLOGISTS
CERTIFICATE NUMBER
10912
AIPG
THOMAS K. BUNDTZEN
CERTIFIED PROFESSIONAL GEOLOGIST