Chandalar Mining District

Annual Report of Findings for 2006

Prepared for

Little Squaw Gold Mining Company

by

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March 15, 2007

OVERVIEW

The Chandalar property is on the south flank of the northern Alaska Brooks Range, part of the North American Cordillera. As of January 1, 2007, the Little Squaw Gold Mining Company holds mineral rights to about 14,600 acres. Though the property has a 100-year history, new Company ownership has initiated the first disciplined modern geologic exploration. Highlights of the 2006 field program include:

- improvements of the Company's infrastructure by acquisition of heavy equipment that was then ground transported over the winter trail to Chandalar. The equipment was used to upgrade the airstrip, roads and camp, build drill pads, and construct a new access road on East Ridge.
- mapping at regional geological and prospect-scale; discovery of several new prospects; and continued exploration using magnetics, soil and stream sampling techniques. A total of 38 prospects were sampled and examined; they are presented on 24 map sets, mostly at 1:4,000 scale. Many are recommended for additional work in 2007.
- A reverse-circulation drill program consisted of 39 scout holes that targeted nine specific prospects with a total footage of 7,763 feet. Cuttings were assayed on five-foot intervals.

Three significant findings resulted from the overall 2006 Chandalar program:

- Drilling, although beset with weather-related, sample recovery, and mechanical problems, did successfully show continuity of gold mineralization along segments of the Eneveloe 100 Level vein, the Little Squaw 100 Level vein, and the Summit vein. The mesothermal gold-quartz vein model remains valid paradigm for the Company by which (1) gold grades of, or greater than, 0.5 oz gold/ton may be found over mine stope-widths, (2) gold grades of, or greater than, 0.25 oz gold/ton may be found over stope widths in a number of other veins, and (3) that at least several ore shoots with bonanza-grade gold are present and that others are likely to exist, although they will be difficult to discover.

- Metasediment-hosted disseminated, stockwork, and veinlet gold values were found at seven widely separated prospects. This type of mineralization has not been previously recognized at Chandalar. At several of these (e.g., Aurora Gulch, Summit, possibly the Crystal, Mikado, and Caribou Gulch) low-grade gold values occur over bulk minable thicknesses with grades of 0.15 to 1.5 ppm gold (.004-.044 oz gold/ton). It is anticipated that higher grade zones will be identified in 2007. At the Ratchet Ridge and Northern Lights prospects altered metamafic rocks cutting carbonaceous metasediments were found to contain similar low-grade gold values. It is concluded that these occurrences present an attractive regional exploration target for which current geologic models are known elsewhere. At present the Company is pursuing an exploration strategy targeting a bulk minable deposit(s) with an aggregate resource potential on the order of $(x)10^6$ oz gold at a minimum cut-off grade commensurate with operating costs 25 to 50% higher due to the property's location.

- A preliminary exploration program was begun in 2006 to evaluate the placer resources. High-grade placer gold is known from earlier mining to occur in multiple fluvial gravel sections hosted within glacial till and glaciofluvial sediments. A brief evaluation on the north side of the district included some excavator trenching where results were in agreement with historical Company records that reported a resource of approximately 200,000 oz gold on Little Squaw Creek and potential additional resources on Spring Creek and Big Squaw Creek.

An exploration program for the 2007 season is recommended. A placer drill program is proposed that includes 90 reverse-circulation drill holes with limited follow-up excavator trenching. Most of this effort will target the left limit bench on Little Squaw Creek. Hard-rock prospect evaluations should be continued and expanded. A trenching program to include 3,500 feet of trench is designed; pending on-site results, this could be expanded. Magnetometer grids and soil surveys will continue. Exploration emphasis in 2007 will be directed toward the recently recognized bulk-minable mineralization.

A core-drill program is proposed that would total about 4,500 feet to explore possible vein extensions of the Eneveloe to the west, the Summit to the west, Little Squaw to the east, undercut the known mineralization at the Mikado and its hanging wall, drill the altered auriferous mafic zone at Ratchet Ridge, and include the first exploratory holes on the Pallasgreen. Provision is included for several additional holes to be nominated during the course of other 2007 exploration.

Table of Contents **Page**

Appendices on CD

List of Figures **Page**

List of Figures **Page**

List of Tables **Page**

INTRODUCTION

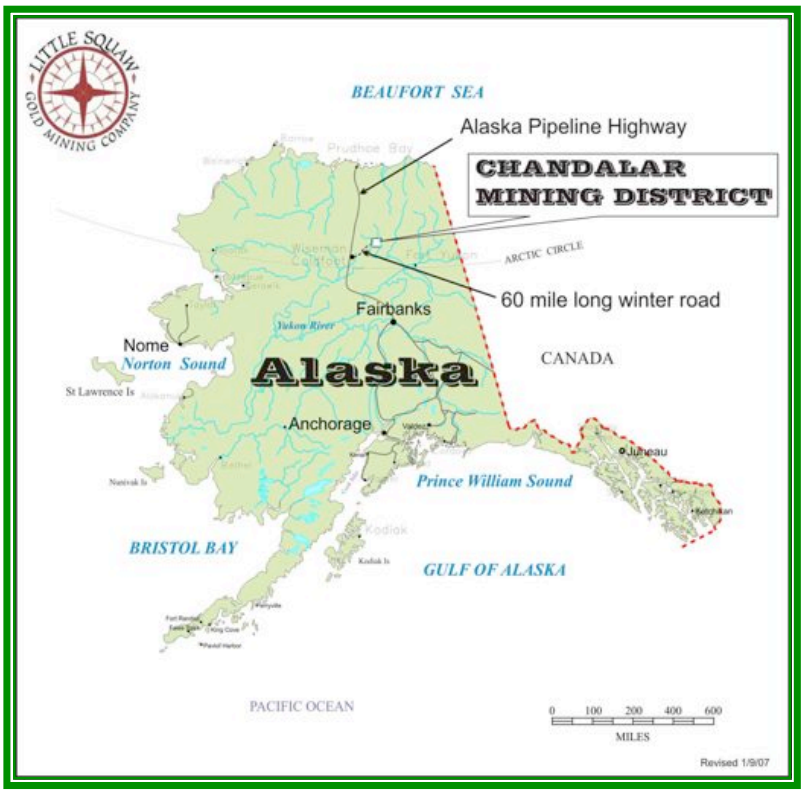
In 2006 the Little Squaw Gold Mining Company conducted a season-long field program on its Chandalar property in northern Alaska; the 2006 objectives included

- ***geological mapping of the district:*** completed at 1:20,000 scale,
- ***mineral exploration, mapping & evaluation of prospects at 1:4,000 scale:*** 24 interim map sets prepared detailing data on 38 prospects,
- ***soil, water, recon rock chip, and stream sediment geochemical sampling:*** 950 samples collected,
- ***evaluation of previously unrecognized styles of mineralization with emphasis on large tonnage deposit models:*** meta-sediment hosted disseminated gold occurrences and altered auriferous meta-volcanic rock are described,
- ***10,000-foot reverse circulation drill program, targeted on 10 prospects:*** 39 holes totaling 7,763 feet were completed on nine prospects,
- ***improvements of major infrastructure:*** repairs made to the Squaw Lake airstrip, airstrip extended to 3,700 feet, temporary tank farm established, the internal road system upgraded, and the Company camp at Mello Bench established,
- ***a 3-mile access road to prospects on the East Ridge scheduled:*** completed north to the Pallasgreen,
- ***preliminary evaluation of placer development potential:*** report and recommendations filed,
- ***acquire and transport to the project a set of heavy equipment to support future exploration:*** a Hitachi 200 excavator with thumb, a D-3 class Komatsu dozer, and support tools and welding supplies brought over the winter trail, an older backhoe/loader on site was refurbished, and an equipment trailer built on site, and three small house trailers refurbished as personnel quarters, and
- ***initiate environmental clean-up:*** cleaned up camp site at Big Squaw Creek, shipped out one ton old batteries, cleaned up airstrip camps, recycled 100 old oil drums for on-site use, removed unused cyanide from mill, began junk removal from Tobin Camp.

The Chandalar property is located in the historic Chandalar mining district at 67° 32' north, about 70 miles north of the Arctic Circle, and about 200 miles north of Fairbanks (Figure 1).

Geographically, the Chandalar district is situated in rugged terrain within the south flank of the Brooks Range where elevations range from 1,900 feet in the lower valleys to just over 5,000 feet on the surrounding mountain peaks. The region has undergone glaciation due to multiple ice advances originating from the north and while no glacial ice remains, the surficial land features of the area reflect abundant evidence of past glaciation. The district is characterized by deeply incised creek valleys that are actively down-cutting the terrain. The steep hill slopes are shingled with frost-fractured slabby slide rock, which is the product of arctic climate mass-wasting and erosion. Consequently, bedrock exposure is mostly limited to ridge crests and a few locations in creek bottoms. Vegetation is limited to the peripheral areas at lower elevations where there are relatively continuous spruce forests in the larger river valleys. The higher elevations are characterized by arctic tundra.

Climate is arctic-continental with relatively warm though short summers and cold winters. Snow melt generally occurs toward the end of May followed by an intense 90-day growing season with 24 hours of daylight and daytime temperatures that range from 60°-85° Fahrenheit. Freezing temperatures return in late August, snow by mid-September, and freeze-up typically occurs by early October. Winter temperatures, particularly in the lower



elevations, can drop to minus 50°F or colder for extended periods. Annual precipitation is 15-20 inches, coming mostly in late summer as rain and as snow during the first half of the winter.

Figure 1. Location of the Chandalar Mining District in northern Alaska

Access to Chandalar is either by aircraft from Fairbanks, or overland during the winter season only via a 60-mile long trail from Coldfoot to Chandalar Lake and then by unimproved road to Tobin Creek or winter trail to Squaw Lake, both on the property. Coldfoot is an important highway service center on the Dalton Highway where most travel services are available. The Dalton Highway, which parallels the Trans Alaska Pipeline, is the only road to the Prudhoe Bay oil fields on Alaska's North Slope, and it is part of the state's highway network. Multi-engine cargo aircraft can land at the state maintained 4,700 foot airfield at Chandalar Lake or at the 3,700 foot Squaw Lake airstrip. Another small aircraft landing strip is located at Big Creek; the former landing area at Tobin Creek is washed out. The Chandalar district is well served by a network of mine roads that connect most of the known prospects, the former mines, and the Mello Bench, Big Creek, and Tobin Creek camps. A fleet of ATVs were used to transport personnel during the field season.

The Chandalar project is on lands administered by the State of Alaska that were received as part of the State's land entitlement specified in the Statehood Act of 1959. The State now controls title to about two million acres of land in the region east of the federally managed pipeline corridor. At present there is no local government entity such as the organized Boroughs established in the more populated parts of the state; neither is there any local taxing authority.

State of Alaska recently obtained a right-of-way access into the Chandalar area. On April 11, 2005 the State of Alaska (the plaintiff) filed a lawsuit against the United States and sixteen companies and individuals (the defendants) to gain quiet title to the state's rights-of-way for the historic Coldfoot to Chandalar Lake Trail. Where it crosses federal lands held by the Bureau of Land Management the lawsuit asserts the Coldfoot to Chandalar Trail to be an RS 2477 route. Recently the State of Alaska and all defendants agreed to a pre-trial settlement of the action. The settlement was then agreed to by a U.S. District Court Judge on January 9, 2007, making it a binding final judgment. This judgment creates a permanent,

sixty-foot wide public highway right-of way for the Trail. It also gives the State of Alaska until October 1, 2008 to establish the exact location of the route using a survey-grade Global Positioning System. The final judgment does not specify the Coldfoot to Chandalar Trail to be an RS 2477 route, but it does say that it is to be treated as if it were one.

The Little Squaw Gold Mining Company (Company) is the principal mining claimant in the Chandalar mining district. The Company holds mineral title to nearly all of the known lode occurrences and most of the known or speculated placer gold resources of the district (Figure 2). The Chandalar property consists of unpatented State MTRSC mining claims (160 acres each) that overlay older state mining claims and 21 patented federal lode claims, one 15.7-acre patented federal placer claim, and one 5-acre patented federal mill site, totaling 426.5 acres held fee simple. Altogether a total of 14,633 acres (22.9 square miles) of mineral rights are held under mining claim. State mining law makes no distinction between lode and placer minerals. *Information concerning the validity of the claims held under State of Alaska mining law as stated herein is provided by the Company and is not independently verified by the author of this report who disclaims any responsibility for its accuracy.*

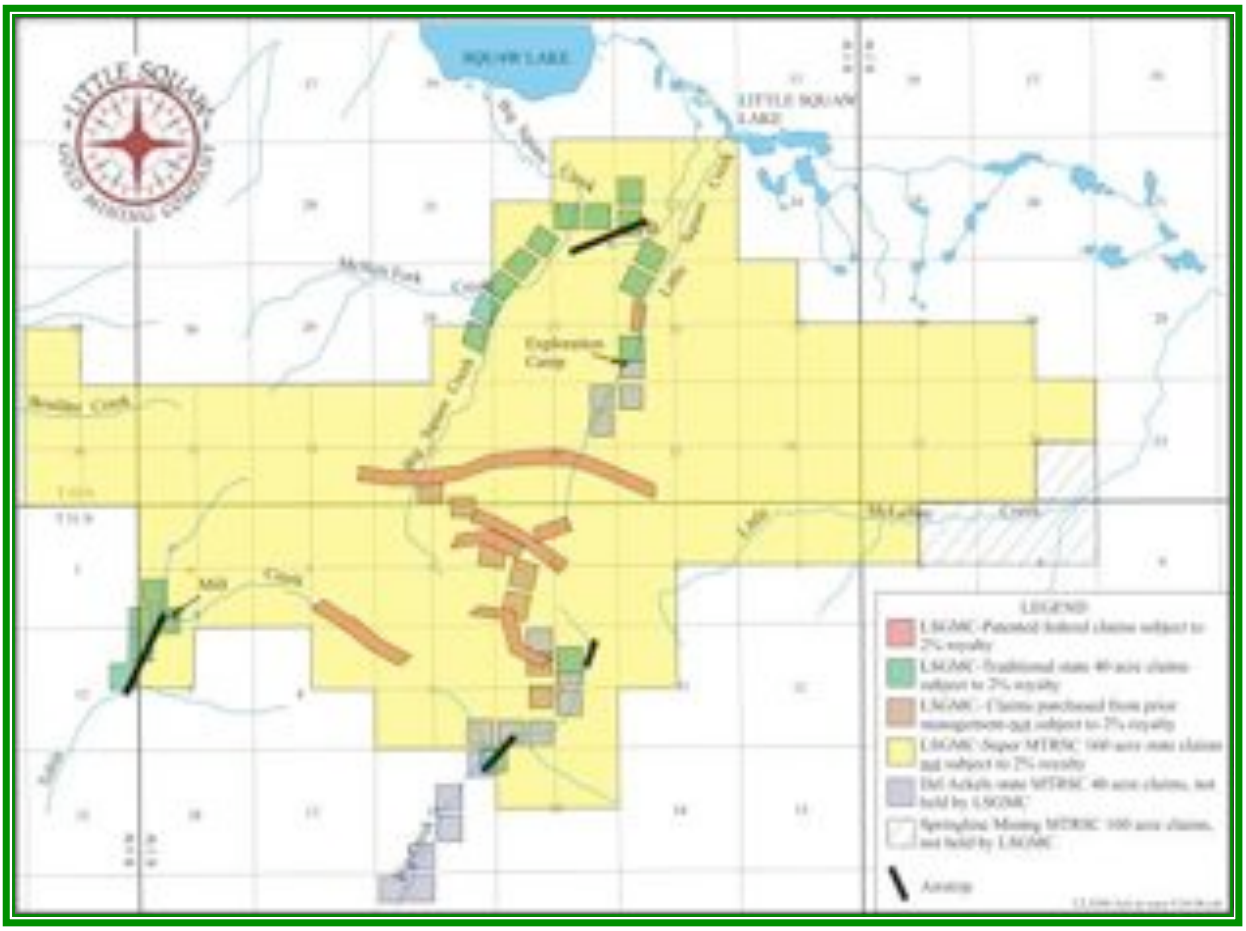


Figure 2. Mining claim location, Little Squaw Gold Mining Company, Chandalar Project

Work began in 2007 with a winter cat train that departed March 16 from Coldfoot, a highway supply point on the Dalton Highway. About 65 tons of supplies and equipment were sledded 70 miles by dozers and rubber tracked vehicles and delivered to a staging site on Big Creek. This included the late model Hitachi 200 Excavator with thumb, the small Komatsu dozer, two metal conex storage units, camp supplies, a fleet of ATVs, miscellaneous generators and equipment, welding equipment and tools and building materials.

Field operations began May 26. The camp was established on leveled mine tailings at the historic Mello Bench and consisted of a resurrected old cabin used as an office, several old trailers and an array of tents that served as sleeping quarters. Taiga Ventures of Fairbanks was contracted to provide laundry, shower and mess facilities and a cook. The site served the camp requirements well, it was a pleasant setting, and its location reduced the travel time to the work areas compared to the alternative site on the airstrip. The nearby 200 Level of the Little Squaw Mine, which is in permafrost bedrock, served as a walk-in freezer. Crew size varied from 4 to 15, plus occasional visitors. Two spike camps were set in the isolated eastern and western areas of the district and were used intermittently.

Weather conditions were generally poor through the spring and summer. An abnormally heavy snow pack remained in the project area until late June. Heavy equipment was ultimately used to open the road to Big Creek on June 16. The last of the road system was plowed out on July 16. Snow storms in mid-August necessitated plowing the same road again. Wet conditions in late June also caused the high slopes at the head of Little Squaw Creek to begin to fail. Transit monitoring was begun and eventually about one-half mile of road was re-built. Impassable mud on the road between the airstrip and camp required additional repair. About September 1 the regional weather patterns changed abruptly, and interior and northern Alaska enjoyed one of the nicest fall seasons in memory. Unfortunately, by previous commitment the project work was officially terminated on September 10 with several personnel staying on to the 20th. A caretaker remained until mid-October.

Chandalar is a hundred-year-old district where old or junk equipment and various mining materials have accumulated. In 2006 the first environmental clean-up was initiated with the clean-up of the old drill camp on Big Squaw Creek, removal of a barrel of cyanide from Tobin Mill, removal of one ton of old batteries, and initial clean-up of debris around the Tobin Camp. About 100 old 55-gallon barrels were gathered and recycled for use in the camp and airport improvements. A continued clean-up effort is planned in 2007.

In 2006 contracts were let for specialized field services as listed in Table 1.

Table 1. 2006 Contracts for Specialized Field Services

Tester Drilling, Anchorage	Light-weight reverse circulation drill & crew
Wright Air Service	Flying service for personnel & supplies with Cessna Caravans
Brooks Air, Fairbanks	Flew drill components & fuel utilizing DC-4 class aircraft
Quicksilver Helicopters	R44 helicopter charter
Alaska Satellite, Anchorage	Provided satellite phone communication

Taiga Ventures, Fairbanks	Mess hall, wash room and cook, in-town expediting
Lawrence Contracting, Monument, Oregon	Heavy equipment operators
Pacific Rim Geological Consulting, Fairbanks	Geological base map of the district
NordWand Enterprize, FAI	Initial assessment of the placer resources
ALS Chemex, Fairbanks	Sample analytical services
Alaska Assay, Fairbanks	Sample analytical services
Remote Transport Systems, North Pole, AK	Winter freighting service
Widdis Trucking, Fairbanks	Highway trucking services north to Coldfoot

Budget authorized for the field program was $1.736 million, including the capital equipment investments. Total exploration costs for the 2006 season are approximately $1.765 million dollars, an increase of $30,000 or approximately 2% of planned spending. All of the objectives of the 2006 program were minimally met although productivity, particularly that of the drill program, suffered due to poor weather conditions (Figure 3). Additionally, the drilling was set back due to mechanical break downs, and down time and added cost due to a lost drill string. Drilling fell short of our 10,000-foot goal by approximately 2,200 feet, or approximately 22%, and associated delays also contributed additional drilling support costs.

Figure 3. Challenging weather, August 19, 2006.

REGIONAL GEOLOGY

A report and map detailing the regional geology and structure of the Chandalar mining district was authored by T.K. Bundtzen and G.M. Laird, Pacific Rim Geological Consulting, 2007, under contract to the Company in 2006; that report is included as Appendix A. Please refer to it for definitions of the rock units discussed here.

All of the bedrock units that underlie the district are assigned to the Coldfoot terrane of regionally metamorphosed, Proterozoic to Paleozoic metasedimentary and minor meta-igneous rocks. A thrust surface within Devonian quartz mica schist of the district separates Upper Plate Devonian sequences from those of the Lower Plate along a north-directed décollement surface. Greenstone/gabbro sills and meta-felsic and intermediate rocks were mapped interbedded within the dominant black schist (Dlb) unit of the Lower Plate; generally these igneous rocks are not found in the Upper Plate. Several prospects, including the Pallasgreen, are found in the Lower Plate.

The Upper Plate forms the higher hills lying between Squaw Lake on the north and Big Creek and Tobin Creek on the south and is dominated by metamorphosed turbidites (Dum and Dut) and a mappable calc meta-sandstone turbidite unit (Dul). The turbidite sections are host to many of the gold-quartz veins in the Chandalar. Also present in the Upper Plate is a fine- to medium-grain fissile black phyllite (Dup) previously referred to as the Mikado Phyllite. This unit is a recessive weathering host to zones of discontinuous quartz mineralization, such as at the Kiska, and low-grade and disseminated mineralization encountered over a 100^{+}-foot thick zone in drill holes at the Summit and possibly at the Crystal.

A conjugate system of west-northwest and northeast striking, high-angle and deep-seated faults cut the district. The WNW faults are found to be the primary control of most known mineralization but additional evidence has been found that at least some important prospects (e.g., Mikado) occur near the intersect of both fault orientations. Near the Mikado, the Big Tobin prospect is associated with a northeast shear zone. In 2006 a series of northwest shear zones were identified that cut the WNW mineralized structures and feature at least some alteration and mineralization.

Age of the décollement surface separating the Upper and Lower Plates is uncertain but may pre-date the orogenic gold-quartz veins. At least minor mineralization at the St. Mary's prospect appears to occur in the Lower Plate (Dlb) schist along the Mikado shear zone, which can be followed along a rapid elevation rise of 1,200 feet to where the same shear zone is host to the Mikado Mine in the Upper Plate (Dup) phyllite. A recent age date of 111 M.a. on sericite separated from an auriferous quartz lens from the Mikado Mine was determined, (written communication, Rainer Newberry, 2006) and is similar to reported dates from the Wiseman area.

SURFICIAL SAMPLING SUMMARY

The Chandalar district is located north of the Arctic Circle, in the region of continuous permafrost. In this area permafrost can be expected to extend to depths of 300 to 500 feet depth. Periglacial features are common in the district and classic examples are seen of solifluction, solifluction lobes, frost boils, extensive frost-riven talus, rock glaciers and an areal active layer of 5 to 7 feet. At least half the district is steeply sloped hillsides and,

because the frost-riven talus is mostly slabby slate and schist, freeze-thaw cycles create a common shingled surface of slabby rock annually in motion down the slopes due to solifluction. The result is relatively rapid, non-fluvial, mass sediment transport. Beyond the area of sampling along the north of the property, glacial till mantles the north-facing hills above the broad post-glacial lowlands. The entire landscape of the district has been created or significantly affected by these processes.

Traditional exploration techniques of soil and stream sediment sampling can be cautiously used at Chandalar, providing the origin of the sampling medium is noted; see Figure 4. Typically after mid-July ridge tops and upper valley slopes are amenable to soil sampling. The steep hillsides in the district, with up to 2,500 feet of relief, are increasingly mantled at lower elevations by ever-thicker accumulations of frost-fractured talus. Talus is underlain by finer material that expands on freezing and shrinks annually, causing step-like transport of the talus into the subsequently incised narrow-bottom valleys. For sampling to be effective it must be done under solifluction material where residual bedrock may be found. Generally soil sampling can not be used at the lower elevations where accumulations of barren talus and colluvium may exceed 50-75 feet thickness. The exception is some slopes where talus is channelized and the intervening residuum is exposed or shallowly buried.

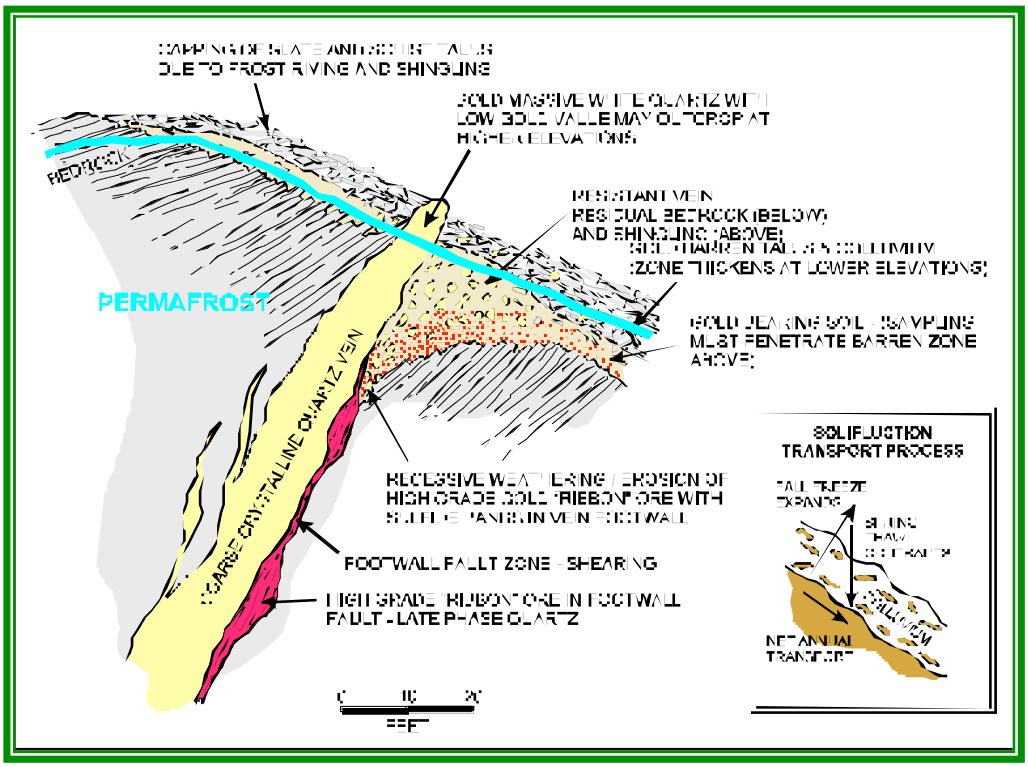


Figure 4. Schematic of a sampling environment in permafrost terrain and typical of the Chandalar mining district.

Because ice-fracturing can occur to significant depths as surface water infiltrates natural cracks in the frozen bedrock, large blocks of bedrock can be wedged apart and caused to move on steeper slopes. Movement opens ever-wider fractures and more surface water accelerates the process. At the Chandalar prospect open cracks were observed that are at least 15 feet deep; consequently the prospect is now recognized as occurring in a block of

bedrock ten or several tens of feet across, rotated and displaced over a distance of as much as a hundred feet. Therefore an early 20th century prospector's effort to drive an adit from the slope below the apparent 'Chandalar outcrop' failed to intercept the vein. Location of the *in situ* Chandalar vein is still unknown. Similar movement of bedrock masses and accompanying open or ice-filled fractures were observed in the Mikado area, the Little Squaw 100 Level, and are likely common throughout the district. Core drilling in the early 1980s and reverse-circulation drilling in 2006 encountered lost circulation in several holes due to open or water-filled voids, resulting in failed drill holes.

Another common feature in the district is the numerous and prominent shear zones that are typically composed of finely ground frozen rock debris, the alteration products of clayey soil and sericite, plus ice. As visible in an annotated photograph later in this report (Figure 54), large landslide features and debris fans of this plastic-like material are exhibited where the Little Squaw shear crosses the Little Squaw Creek valley and on the lower slopes of the Crystal prospect on the opposite (east side) of the valley. Similarly the ridge cut by the Pioneer shear zone features multiple frozen landslides on the western slope and solifluction lobes draping the eastern slope. At the Summit west extension, a landslide covers the trace of the shear zone and vein system.

Sample analyses reported in 2006 were combined with those of 2004-2005 and are presented on the various prospect maps, Appendices B. A computer-based sample tracking log (Excel™) was also prepared that lists all samples, sorted both numerically and by prospect; it is included on disk in the back pocket and provides:

- Type of sample, i.e., soil, rock, stream sediment, water
- prospect name
- location data in UTM coordinates using the North American-Alaska datum
- name of person who collected the sample
- the field description of the each sample
- assay certificate number
- analyses for Au, As, Bi, Pb, Sb. Only Au was determined in 2004; data on approximately 30 other elements are available for 2005 and 2006.

Approximately 1,500 samples have been collected during the 2004-2006 field seasons. The sampling effort was almost entirely 'targeted' to areas or sites where mineralization was known or suspected. As such, this is not a data set that can be statistically treated to determine background, correlation factors and element concentration levels of anomalous values.

Stream sediment and soil samples are presented in the following discussions as anomalous at certain concentrations of gold, arsenic, and, in the prospects areas antimony was present, it is also cited. These were the only elements that consistently showed variability between mineralized and non-mineralized sites. Arsenic is the only true 'pathfinder element' for gold at Chandalar. Lead, zinc, cadmium, and bismuth will spike near/within significant mineralization but do not appear to form more regional haloes. Lead and copper may show some low base-level regional zonation, however, the current data bank is too biased toward known or suspected gold targets to further comment. Antimony shows a curious zonation within the central part of the district confined to the Aurora-McLellan prospect, and the Summit, Chiga, Indicate, and Big Creek Bowl areas. In these prospects antimony values tend to concentrate above and laterally away from anomalous gold-arsenic values. This partitioning of the antimony values could suggest a genetic difference in the chemistry or timing of ore fluids associated specifically with these prospects. Further work on these

subjects will be pursued at such time that the Company is able to collect sample data beyond areas of known mineralization and compile an accurate topographic base on which to position data points.

Analytical values represented in this report as 'anomalous' are based solely on a visual review of the data and the author's experience with gold projects elsewhere in Alaska. Because Chandalar is a known gold district the gold, arsenic, and antimony threshold levels are set somewhat higher than they would be if the samples were part of a regional exploration program. As is common elsewhere, extremely high values will be found in soil samples in close proximity to mineralization, whereas steam sediment values will be moderated by other local influences. Table 2 shows the values for soil and stream sediment samples are used as threshold, moderately anomalous, and highly anomalous in the individual prospect discussions.

Table 2. Field Definitions of Sample Concentration Levels

LEVEL	GOLD (ppb)	ARSENIC (ppm)	ANTIMONY (ppm)
Threshold	50	200	7
Moderately Anomalous	100	600	20
Highly Anomalous	300	1200	45
Highest stream sediment	591 (Eneveloe)	1809 (Rock Glacier)	
Highest soil values near apparent mineralization	3,670 (Little Squaw West)	>10,000	242 (Chiga prospect)

Stream sediment sampling was tested in 2005-6 and found to show anomalies where expected, with values of 50 ppb gold probably representing the anomalous threshold; values up to 450 ppb gold were found below known mineralization, such as below the Rock Glacier prospect and below the Eneveloe (591 ppb), Aurora (182 ppb), and Summit veins (171 ppb). At Nugget Creek and at natural seeps on the Ratchet Ridge prospect, on the other hand, no metal values were found below apparent mineralization despite the presence of mineralized float in the stream bed. The stream water in Nugget Creek is precipitating intense iron-oxide and is acidic (pH 2.6 to 3.8), as are the Ratchet Ridge seeps, perhaps too acidic to allow anomalous metal concentrations to form in sediments.

Samples collected in 2006 were prepared and analyzed by ALS Chemex. Check assays were done at Alaska Assay, Fairbanks. Gold was assayed by a fire assay procedure on a one-assay ton charge followed by an inductively-coupled plasma determination. Where coarse gold was suspected in some rock samples, a standard 1,000 g metallic screen assay procedure was used. A multi-element MS-ICP procedure was used to determine an array of other elements of which As, Bi, Pb, and Sb are tabulated in the sample tables, Appendix B.

A suite of water samples was collected in sterile, pre-acidified plastic bottles, kept chilled, and shipped to Columbia Analytical Services, Kelso, WA, for analyses. Water sampling was done as a test to determine its applicability in the Chandalar district. Data for eleven water samples is presented in the following chart, Figure 5. Of specific note are stream water zinc concentrations of 958 µg/L in Nugget Creek and 390 in the tributary draining the Pallasgreen prospect. Elevated Cu, Cd, and Zn were also detected in acidic spring water at the Ratchet Ridge prospect. It was found that water sampling was of little value during periods of melt

water run-off and wet weather conditions, but could be useful for regional exploration in dry weather.

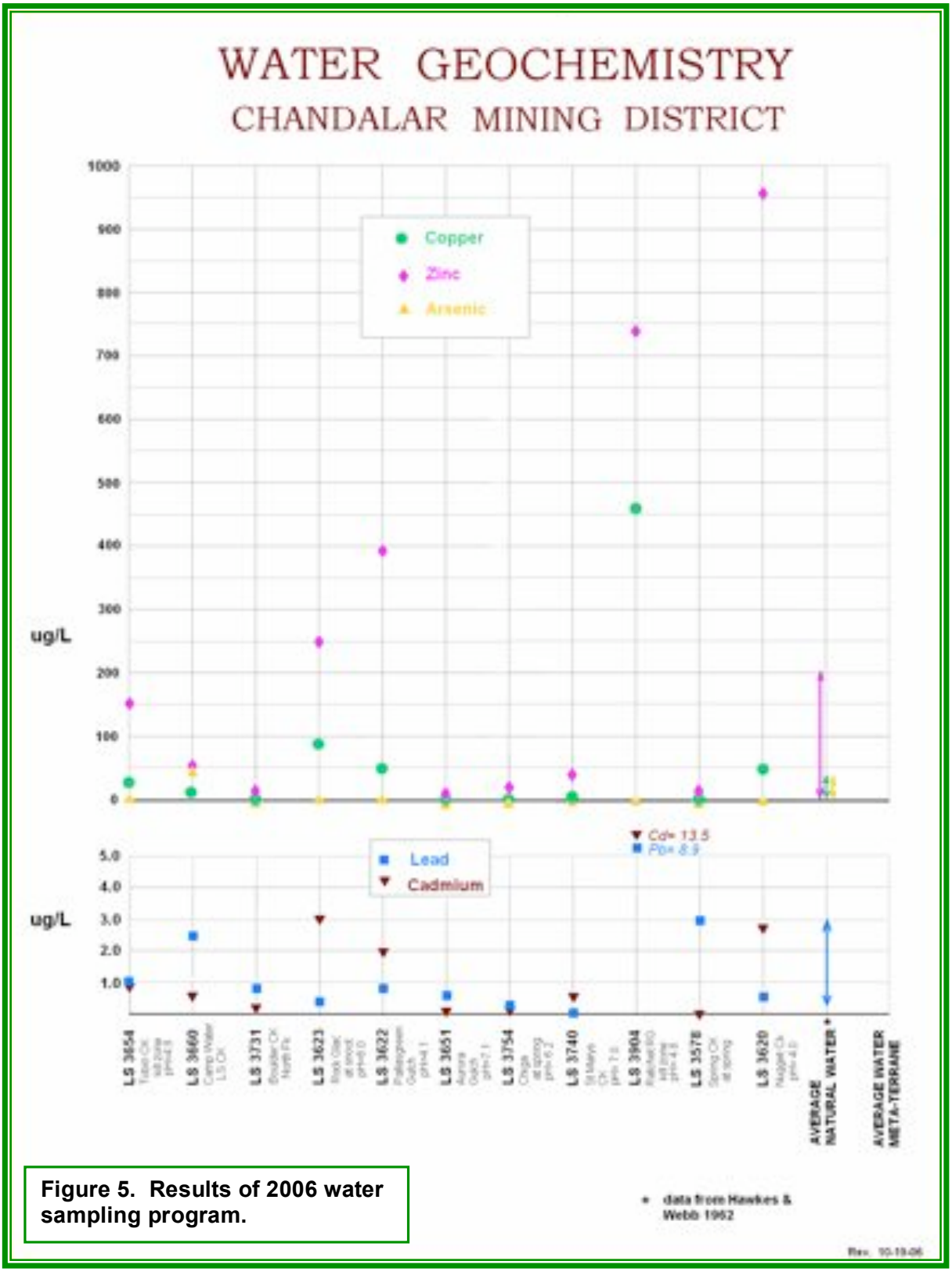


Figure 5. Results of 2006 water sampling program.

DRILLING PROGRAM SUMMARY

The 2006 drilling program tested nine prospects with 39 reverse-circulation holes and a drill site was prepared at a tenth prospect (Bonanza) but not drilled. Plans to drill the Rock Glacier, Pallasgreen and the Mikado were suspended due to the exceedingly wet conditions during the summer of 2006. Ten of the holes were abandoned or lost prior to reaching their targets due to poor ground conditions. As much as possible, the drill holes were drilled at 45° declination designed to intercept the steeply-dipping targeted quartz veins or mineralized structures at about right angles in order to represent their approximate true widths. The prospect sites and the targeted mineralized structures where the 2006 drilling took place are described in the following prospect evaluation sections. Drill-assay sections are given in Appendix F.

The drill mask and hydraulics were mounted on a rubber-tracked Nodwell^{TM}-like vehicle and the compressor, tools, and drill pipe were carried on a separate trailer. Drilling began July 22—approximately 100 years to the day from the district's discovery—and was terminated September 8. A small dozer was used to assist the operation.

A total of 13 days were lost to down time on the drill. Permafrost was present in all holes, *in situ* moisture and ice- and water-filled voids resulted in icing of the hammer and subsequent tripping out to thaw the equipment. Anti-freeze was injected but with limited success. Some holes were consequently lost. Unfortunately these conditions were generally found in the immediate vicinity of the host structure of the vein systems leaving some holes terminated immediately ahead of their intended targets. An entire string of pipe and a hammer were lost at drill hole KIS-13 when the hammer became stuck at 320 feet. The sample recovery suffered due to excessive blow-by, which may have contributed to gold loss, although this can not be confirmed until additional drilling is done.

Sampling was done continuously on five-foot intervals for which a double sample was collected with one sample submitted for assay and the second archived at the site. The hammer was lifted and the return tube blown out at completion of each five foot interval. The samples were prepared and assayed by ALS Chemex using a 1 assay-ton fire assay procedure with an ICP finish. Where vein quartz was logged, the adjoining wall rock and quartz interval were submitted for 1,000 g metallic screen assay procedure. A total of 1,258 sample intervals were submitted for assay (Appendix F) and drill cross-sections showing mineralized intervals only are available in Appendix G.

Table 3 summarizes the 2006 Chandalar drilling program, showing the drilling statistics for each of the nine prospects that were drilled.

Table 3. 2006 Chandalar Drill Program Summary.

Prospect	Hole #	UTM Easting	UTM Northing	Angle (°)	Total Depth (feet)
Little Squaw	LS-1 (lost)	49495	93423	-45	168
	LS-2	49495	93423	-45	310
	LS-3 (lost)	49454	93395	-45	200
	LS-4	49459	93447	-45	210
	LS-5	49345	93386	-45	380
	LS-35	49516	93390	-45	210
	LS-36	49515	93388	-45	130

Prospect	Hole #	UTM Easting	UTM Northing	Angle (°)	Total Depth (feet)
				Little Squaw Subtotal =	**1,608**
Summit	SUM-6	49331	91836	-45	300
	SUM-7	49212	91845	-45	310
	SUM-8	49212	91842	-60	150
	SUM-9	40209	91838	-45	175
	SUM-10	49080	91869	-45	300
	SUM-11 (lost)	48995	91904	-45	120
	SUM-12	48996	91905	-45	300
				Summit Subtotal =	**1,555**
Kiska	KIS-13	48847	91277	-45	320
	KIS-14	48726	91377	-45	215
	KIS-15	48726	91377	-45	210
	KIS-16 (lost)	48767	91336	-45	140
	KIS-17 (lost)	48770	91334	-45	170
	KIS-18	48959	91285	-45	210
	KIS-19 (lost)	49064	91232	-45	170
				Kiska Subtotal =	**1,435**
Eneveloe	EN-20	48592	92631	-45	140
	EN-21	48592	92632	-45	180
	EN-22	48591	92653	-60	170
	EN-26	48718	92545	-45	210
	EN-27	48713	92551	-45	210
				Eneveloe Subtotal =	**910**
Jupiter	JUP-23 (lost)	48452	92470	-50	120
	JUP-24	48446	92468	-50	210
	JUP-25	48541	92475	-50	210
				Jupiter Subtotal =	**540**
Uranus	UR-28	50451	92565	-45	205
	UR-29	50513	92459	-45	210
				Uranus Subtotal =	**415**
Crystal	CRY-30	50710	93012	-45	210
	CRY-31	50755	92982	-45	180
				Crystal Subtotal =	**390**
Ratchet Ridge	RR-32 (lost)	49762	91840	-45	140
	RR-33	49816	91821	-45	160
	RR-34	49794	91817	-45	170
				Ratchet Ridge Subtotal =	**470**
Little Squaw East	LS-37 (lost)	49717	93459	-45	60
	LS-38	49715	93465	-45	210
	LS-39 (lost)	49730	93285	-45	70
				Little Squaw East Subtotal =	**340**
				TOTAL 2006 DRILLING PROGRAM ACTUAL FOOTAGE =	**7,763**

Note: UTM coordinates datum NA 27 Alaska.

PROSPECT REPORTS INTRODUCTION

A total of 38 individual lode prospects have been identified in the Chandalar mining district. These are shown on a series of 24 map sets depicting available information. Evaluation of gold placer prospects was not attempted in 2006 beyond an initial reconnaissance of the Little Squaw Creek area. Prospect locations and the associated vein systems along which they occur are given on Figure 6.

Most map plates that accompany the following discussions have been prepared at 1:4,000 scale. Because of the large areas involved at several prospects, maps of the Boulder Creek and Northern Lights prospects were done at 1:8,000 scale and the Caribou Gulch-Kelty area was compiled at 1:10,000 scale.

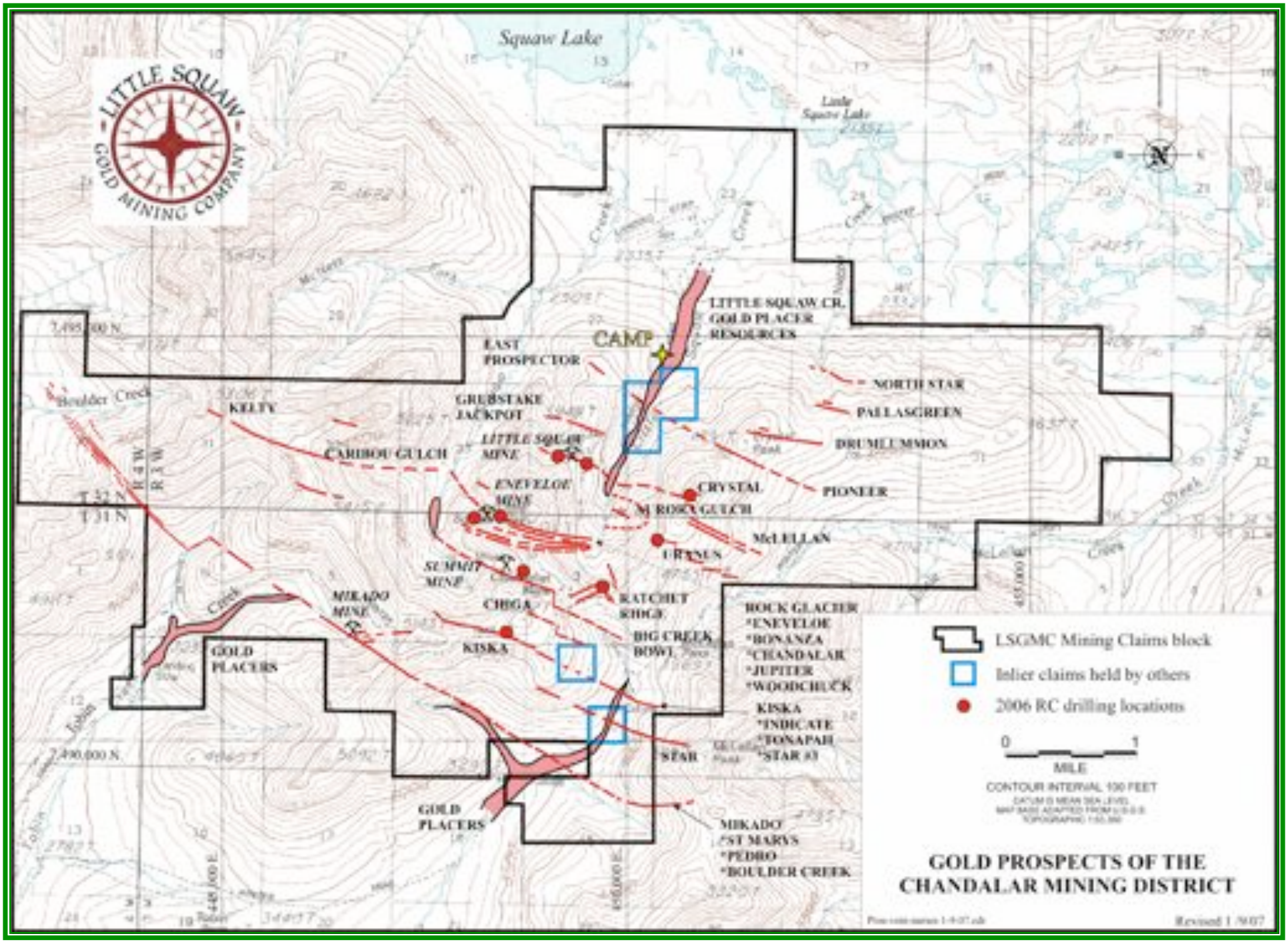
Prospect maps showing the distribution of gold sample values are included in the text; base maps and prospect maps showing the arsenic and antimony (for prospects where antimony is present) distributions are included in Appendices C, D and E, respectively.

The following legend of map symbols and information (Figure 7) is common to all prospect maps:

Some convenient conversions:

1 ppm = 0.0292 oz/ton
1 ppm = 1 g/tonne
1 oz/ton = 34.286 g/tonne = 31.103/ton
1 tonne = 32,150.9 oz

On the following page:
Figure 6. Location of Chandalar mining district gold veins and associated prospects.


LITTLE SQUAW GOLD MINING COMPANY
Squaw Lake
Little Squaw Lake
LITTLE SQUAW CR. GOLD PLACER RESOURCES
CAMP
EAST PROSPECTOR
NORTH STAR
PALLASGREEN
DRUMELMMON
PIONEER
CRYSTAL
McLELLAN
URANUS
GRUBSTAKE JACKPOT
KELLY
Boulder Creek
CARIBOU GULCH
LITTLE SQUAW MINE
ENEVELOE MINE
SUMMIT MINE
MIKADO MINE
CHUGA
KISKA
RATCHET RIDGE
BIG CREEK BOWL
GOLD PLACERS
STAR
GOLD PLACERS
ROCK GLACIER
*ENEVELOE
*BONANZA
*CHANDALAR
*JUPITER
*WOODCHUCK
KISKA
*INDICATE
*TONAPAH
*STAR #3
MIKADO
*ST MARYS
*PEDRO
*BOULDER CREEK
LSGMC Mining Claims block
Inlier claims held by others
2006 RC drilling locations
0
1
MILE
CONTOUR INTERVAL 100 FEET
GOLD PROSPECTS OF THE CHANDALAR MINING DISTRICT
Revised 1/9/07

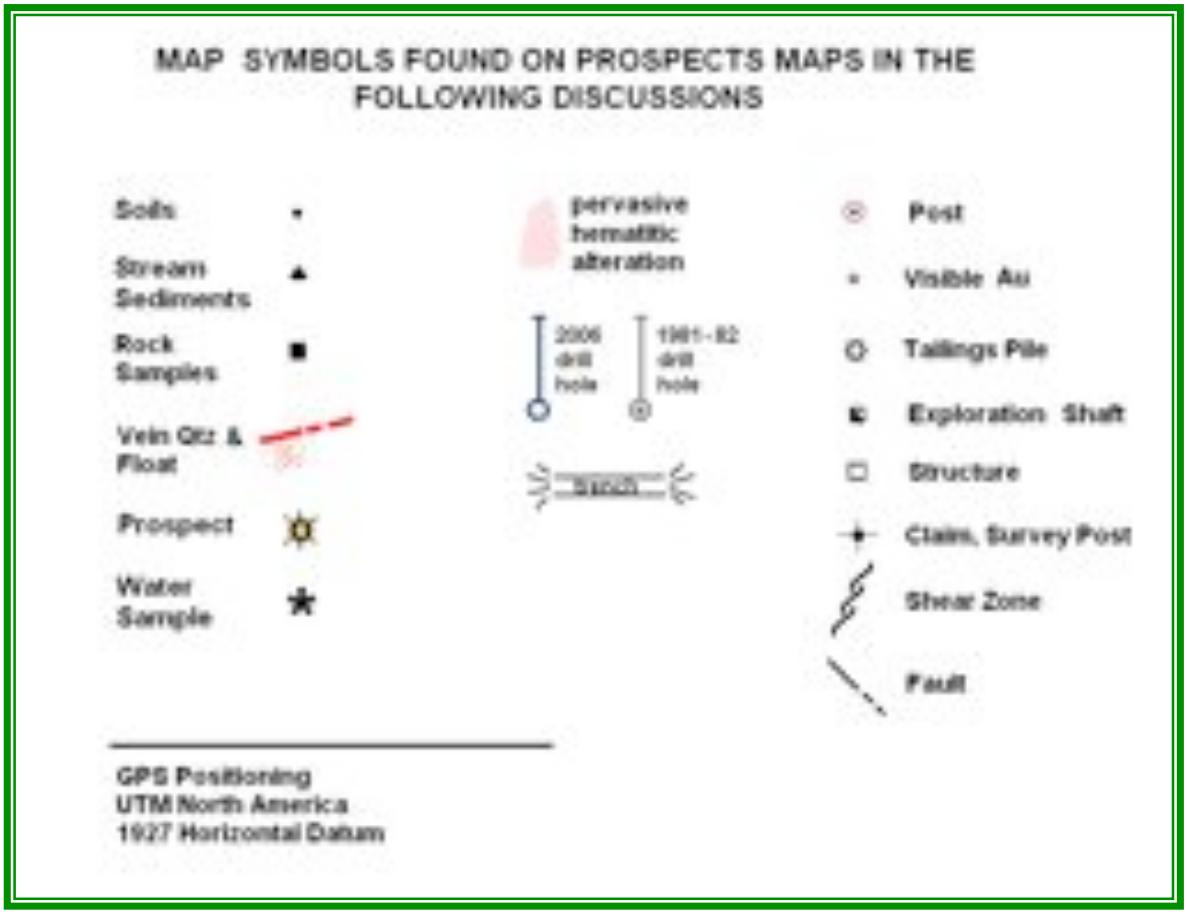


Figure 7. Map symbols and information common to all prospect maps.

The Aurora Gulch – McLellan Prospects

Introduction

The Aurora Gulch prospect represents a type of gold-arsenic mineralization that differs markedly from the classical mesothermal quartz veins typical of the Chandalar district. At the Aurora, gold-arsenic values with a distil antimony halo are concentrated in carbonaceous phyllite to schist below an altered structural contact with overlying gently folded greenstone sills.

Location and History

The Aurora Gulch area is located on the valley slopes east of the head of Little Squaw Creek where it emanates from the snoot of a prominent rock glacier. It can be accessed from the mine road along Little Squaw Creek and also from the drill road on the Uranus prospect near the top of the ridge. The prospect includes a large soil gold-arsenic anomaly, about 1,200 feet across, that begins near the creek level, elevation 3,350 feet, and extends to an elevation of about 4,050 feet on the slope above. Except for one bedrock exposure, all Aurora Gulch rock samples reported are from float.

No records exist in Company files concerning this prospect; it was first recognized in 2006. During initial mapping, however, a single very old prospect pit was found on a quartz-scorodite exposure, as shown on the attached maps (see sample LS3962). No drilling or trenching was attempted in 2006.

Geology and Structure

The prospect area is underlain by carbonaceous gray to black schist. The valley slope is mantled with scree and landslide blocks of bedrock that form relatively small areas of apparent bedrock exposure. Locally the black schist is extensively folded and sheared. Within the black to gray schist scree are some fragments of dolomite. In hand specimen the dolomite is unfoliated and locally includes carbonate and veinlet quartz. At the Kiska prospect dolomite was found as hydrothermal lenses in shear zones, which may be similar to the Aurora Gulch. Higher on the slope are areas of a more massive gray, talus-forming, schist as seen in the Summit area, however, time did not permit an effort to individually map this rock type.

Greenstone sills up to 75 feet thick (most are thinner) are exposed as areas of concentrated float on the hill slope and form steep talus exposures near the top of the ridge. The sills exhibit a variable schistose fabric; they are generally fine-grained and tend to have some degree of carbonate alteration throughout. The sills are folded along an east-southeast axis that appears to slightly dome near the ridge top and gently plunge to the west. The greenstone structure, as well as the Au-As-Sb soil and rock anomalies, are continuous onto the McLellan prospect map area to the east and thereby both sets of maps will be included with this preliminary account. The sills can be traced east to McLellan Creek where they are exposed in the glacial-scoured creek bed.

Below the sill complex an envelope of sericitic-hematite alteration extends into the carbonaceous schist that, in turn, haloes the area of gold-arsenic soil values. Investigations to-date suggest the concentration of metal values is structurally controlled by the folded overlying greenstone sills, which at Aurora Gulch also overlie one, perhaps several, 110°-trending, deep-seated fault shear zones cutting the schist. As elsewhere in the district these shear zones are marked by linear topographic depressions and are associated with mineralization. The shear zones seen or projected under the Aurora Gulch prospect include those associated with gold values at the Uranus and McLellan prospects

Mineralization

Gold values have been found in soil, stream sediment, and rock samples. Stream sediment values are up to 0.45 ppm Au, and soil values range up to 2.78 ppm Au. Soil and sediment sampling results define an approximate 1,200 foot -square area of anomalous gold and arsenic that is enveloped by a zone of variable sericite-silicic-hematite±carbonate-altered schist, mostly underlying the lowermost greenstone sill.

Mineralization observed to-date occurs as pods and lenses of sulfide±quartz distributed within sheared and isoclinally folded black phyllite to schist. At sample LS3779 discrete grains of arsenopyrite and, tentatively, stibnite were observed in black schist. Nearby (sample LS3939) a quartz veinlet stockwork in nonfoliated dolomite composing several small float boulders assayed 38.8 ppm gold. Dolomitic float was seen elsewhere along the northern perimeter of the prospect area (LS3430). At samples LS3962-64 massive arsenopyrite and scorodite with quartz occurs in the black schist adjacent to hematitic altered schist. Very little bedrock is exposed for examination. Most of the map area is talus or tundra covered.

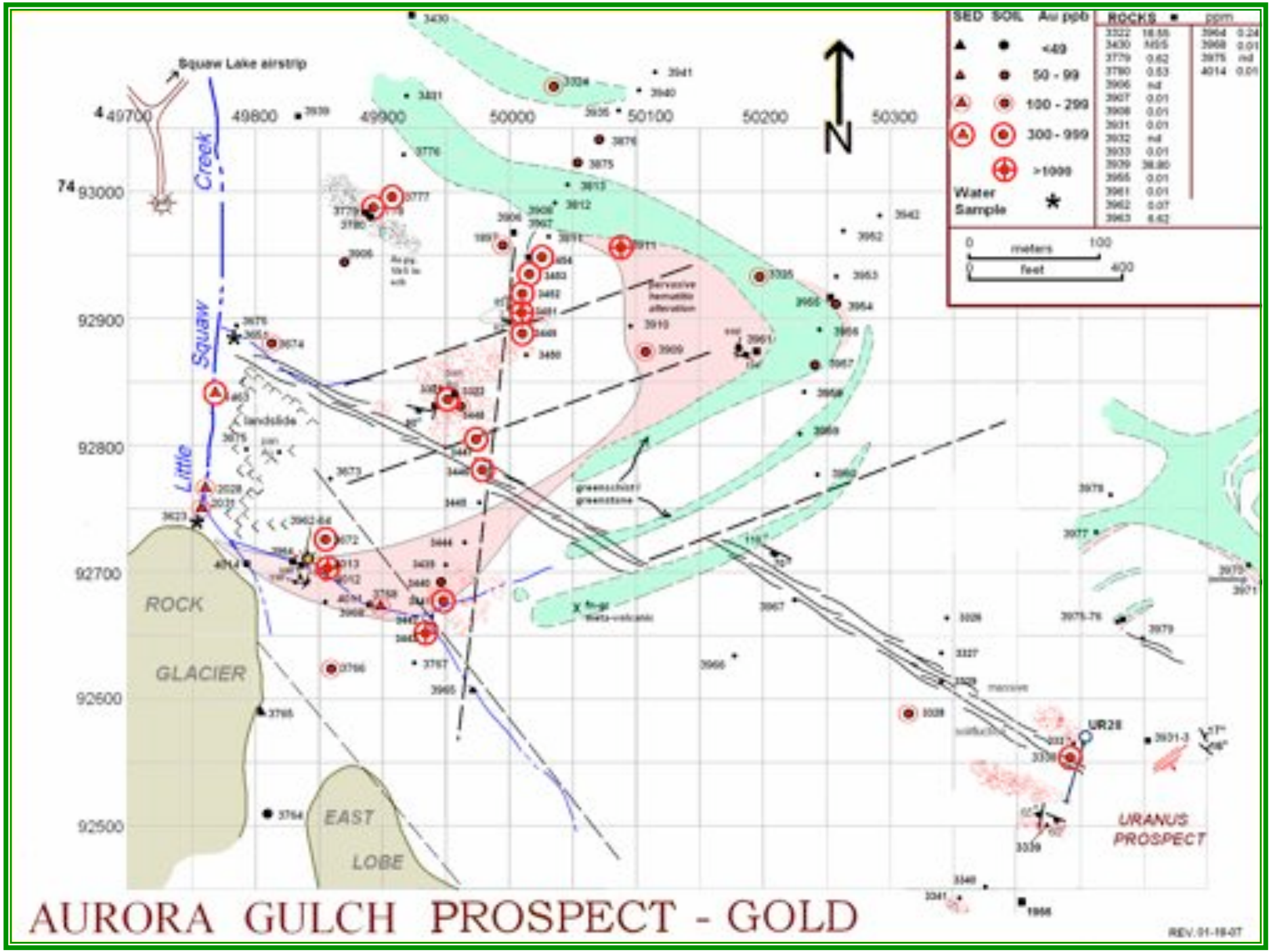
Thin sections of the hematitic altered schist and the altered greenstone are being prepared. Several gold-bearing samples are submitted for microprobe examination, results pending. An age date on the greenstone sills is being attempted. All 2006 soil sample gold data are plotted on prospect maps, Figures 8 and 9. (Soil values are plotted separately for arsenic and antimony. See Appendices D and E.) Note arsenic follows gold closely except along the south of the Aurora Gulch prospect where high values for gold contain only low arsenic. Antimony shows an affinity for concentrating higher in stratigraphy and soil sample values range up to about 250 ppm. This segregation of antimony values within the upper stratigraphy and within the greenstone sills is further evident at the McLellan Prospect to the east (see Crystal-McLellan map sheets, Figure 10 and in Appendices D and E). The relatively widespread distribution of antimony values at the McLellan prospect thereby suggests a possible gold exploration target at depth.

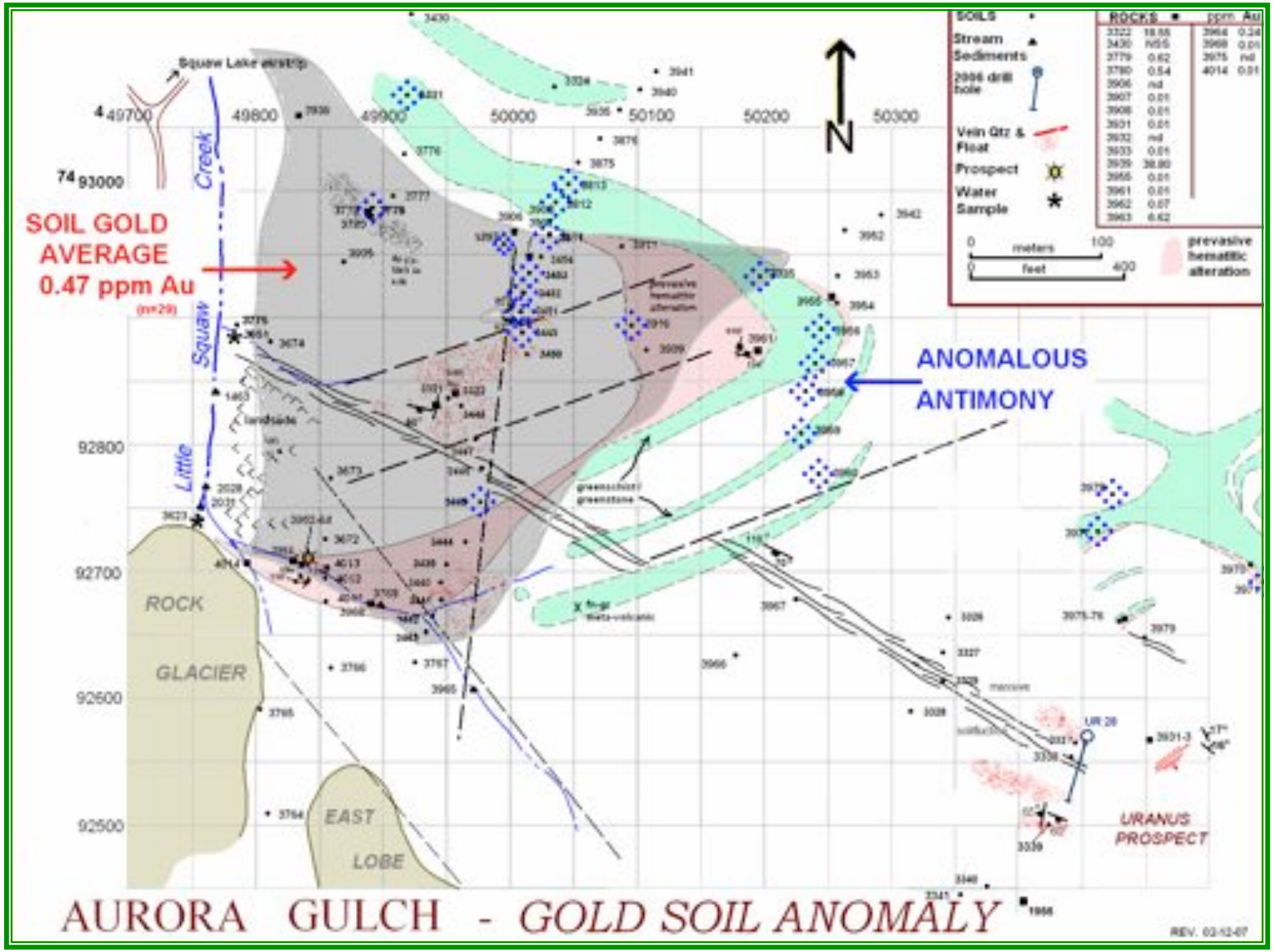
Evaluation of the present data will continue. It appears a trenching and perhaps a drilling program would be justified in 2007.

On the following two pages:

Figure 8. Aurora Gulch prospect map showing gold analyses. For distributions of arsenic and antimony, see Appendices C and D, respectively.

Figure 9. Aurora Gulch prospect map showing gold soil anomaly.


AURORA GULCH PROSPECT - GOLD
Squaw Lake airstrip
Little Squaw Creek
ROCK GLACIER
EAST LOBE
URANUS PROSPECT
UR28
landslide
N
SED SOIL Au ppb
<40
50 - 99
100 - 299
300 - 999
>1000
Water Sample
ROCKS ppm
0 meters 100
0 feet 400
49700
49800
49900
50000
50100
50200
50300
93000
92900
92800
92700
92600
92500



AURORA GULCH - *GOLD SOIL ANOMALY*

REV. 03-12-07

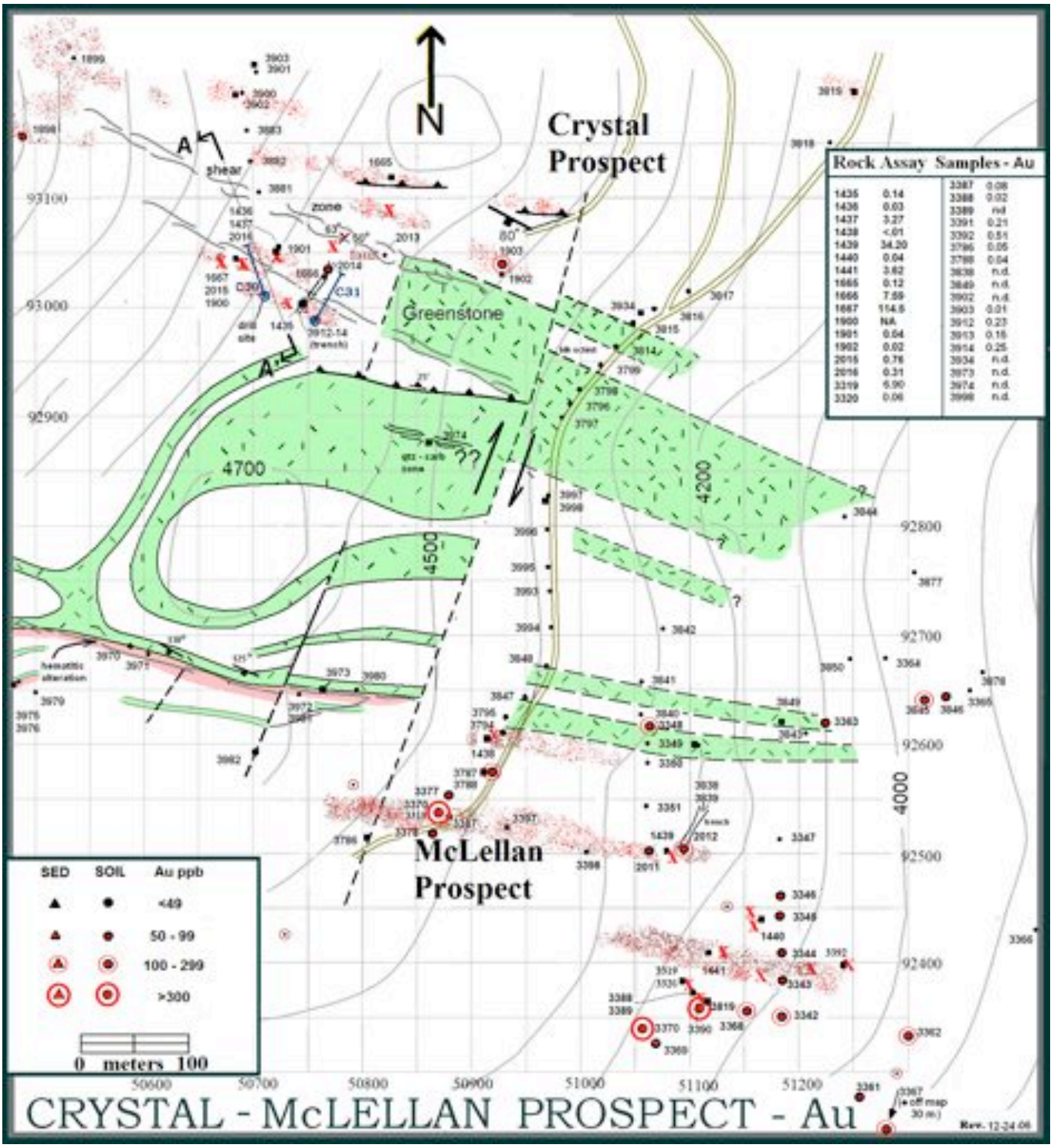


Figure 10. McLellan prospect map showing gold analyses. For distribution of arsenic and antimony, see Appendices C and D.

Big Creek Bowl Area

Introduction

The Big Creek Bowl prospect area is now mapped as a fault-displaced southeast extension of the Summit and Chiga prospects. Because of the distance between the prospects and the scale of mapping it is necessary to describe the Big Creek Bowl area as a separate report. Many of the comments and recommendations presented later relative to the Summit and Chiga prospects, however, can be applied here as well.

History and Location

The Big Creek Bowl includes the early 1900s workings known as the Shamrock and the Wildcat. Both are simply described as prospect pits to explore quartz veins with no other detail given. There are also several very old hand-dug pits central to the map area for which there are no records. The area is located south of Ratchet Ridge, which divides Big Creek from north-flowing Little Squaw Creek.

Geology and Structure

As viewed in the following photograph (Figure 11), the prospect is situated in a deeply incised bowl at the head of Big Creek. Bedrock is mostly carbonaceous gray-black schist that generally does not outcrop except in the lower creek bottom, where foliation dips moderately northeast. Ridges to the north and to the southwest are composed of a more resistant lighter gray schist. Much of the bowl is mantled with talus from the ridges.

Figure 11. Looking into Big Creek Bowl from above the road to Tobin.

The Summit shear zone, striking about 110°, defines the northeast margin of the prospect. It is shown as a single, steeply north-dipping structure on the attached map sheet, however, it is suspected to have broken into several splays. The shear is lost under talus to the east. Another sub-parallel fault or shear system is suspected to underlie the upper reach of Big Creek as evident by its sharp northwest curve and abruptly incised character. The 110° shear zone(s) and faults are offset by northeast, right-lateral strike-slip faults; two are shown on the map set, others are likely present but not mapped. As much as 450 feet of offset is apparent above the road. Jointing in bedrock along the ridge commonly features 010°-025° joint sets that mimic the offset faulting.

The northwest shears and accompanying veins appear to terminate against a major northeast structure seen in the background of the photograph where it forms a large saddle between McLellan Creek and Big Creek. Reconnaissance across the northeast structure failed to find indication of mineralization, suggesting it to be a younger feature post-dating the mineralized shear zones.

Geochemical Sampling and Mineralization

Concentrations of vein float are observed intermittently for about 1,000 feet beginning at a point on the offset fault just above the road (above sample LS3314; see Figure 12) and continuing down through the bowl where eventually talus cover crowds out and covers the vein float. Quartz cobbles and boulders contain disseminated wisps, clots, and narrow veinlets of graphite, chlorite, and arsenopyrite. Scattered in the vein float are smaller, more friable and readily oxidized fragments and cobbles of quart breccia with clayey gouge cement, graphite, arsenic- and iron oxides, and massive clots of arsenopyrite and minor galena. This rock closely resembles material on the mine dumps at the Summit. Random samples from five quartz boulders found only minor gold values, the highest was 1.72 ppm Au in sample LS1419.

The old trench known as the Shamrock exposes a 3-foot wide composite vein of massive white quartz (sample LS1424 with 5.33 ppm Au) and a narrower zone of breccia quartz with arsenopyrite and stained green with scorodite (sample LS1425 with 11.6 ppm Au). The vein could be traced in the heavy talus for less than 65 feet.

In the east of the map area is the Wildcat prospect, but an examination found no evidence of mineralization. No samples were collected.

Soil samples were collected along traverse lines as possible, however, sampling was limited to sites where residual soil was exposed by frost boils or solifluction in the talus. An array of anomalous gold and arsenic anomalies north of UTM 7491500 North correlates well with inferred extension of veins from the Summit system. Probably two or three veins are present and individually, the first vein aligns with sample LS3314, the second with sample LS3918, and possibly a third vein near sample LS3917.

South of UTM 7491500 is another array of anomalies characterized by more widespread arsenic and a distinct areal distribution of anomalous antimony values. The geochemical signature, particularly the antimony in soil anomalies, is quite similar to the Chiga prospect about 450 feet west. The Shamrock trench exposure is within this zone and the configuration of the soil anomalies suggests there is another vein southwest of the Shamrock trench. Curiously, as compared to the displacement on the Summit veins, it is noted that very little offset can be inferred between the Chiga Prospect to the west and the soil anomalies in the vicinity of the Shamrock.

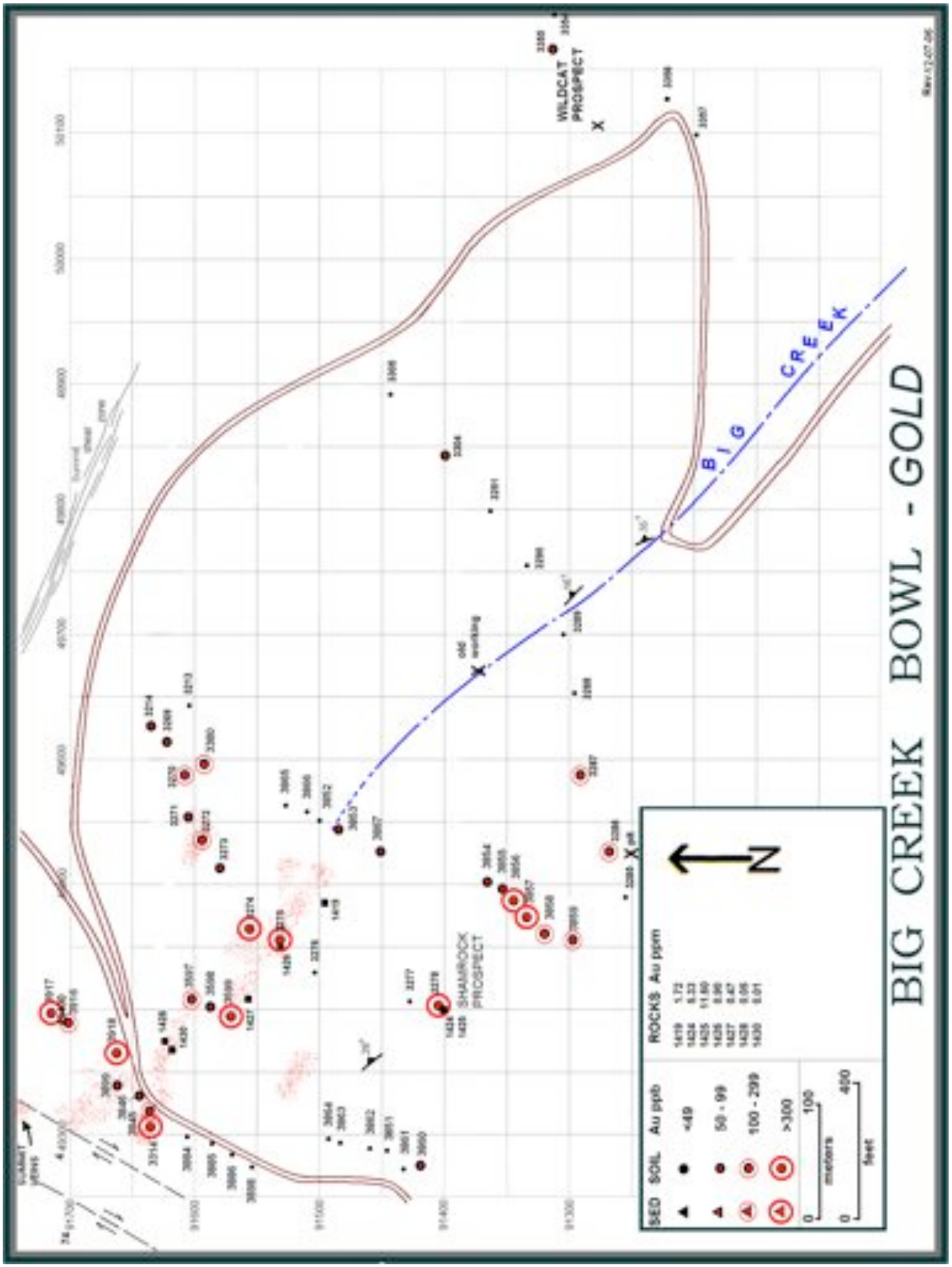


Figure 12. Big Creek Bowl prospect map showing gold analyses. For distribution of arsenic and antimony, see Appendices C and D.

Recommendations

Veins inferred to be fault offset from the Summit vein system apparently strike under the road and down into the steeply incised bowl of uppermost Big Creek. Similarly a mineralized structure extends from the Chiga prospect immediately to the west but lacks evidence of any significant offset. The structural interpretation and geologic mapping needs to be improved.

Some of the present soil lines should be extended northeast and southwest where anomalies have not been closed off. Several magnetometer profiles may help better define the target zones. Both vein sets should be initially evaluated by excavator trenching along the uphill side of the road. Drill testing, as warranted, can be done from an access route along the left limit slope above Big Creek.

Big Tobin-Mikado Prospect

History and Location

Exploration and development of the Mikado deposit continued sporadically after its discovery in about 1908 and by the 1960s a proven and a probable reserve of 25,000 tons grading 2.2 oz gold/ton was estimated by the operators. A mill was then constructed by the Company and sporadic mining followed. Limited diamond drill programs (AQ core) were attempted in the 1970s-1980s but they were beset by severe core recovery problems because of frozen, clayey gouge fault zones and quartz breccia. The Mikado Mine has produced 11,600 ounces of gold but, due to poor mill recovery, only 7,700 ounces were recovered. In 1981 there was a cave-in on the 100 Level and the mine flooded and froze; operations in 1982 converted to a small open pit to salvage some of the developed ore. The Mikado Mine area is further described in the Company's 2004 and 2005 reports. No additional work was done in 2006.

Elsewhere in the vicinity of the Mikado Mine, soil sampling by Noranda (as a lessee) in 1975 (LSGMC files) reported anomalous gold values in the saddle area between Big Squaw Creek and Tobin Creek headwaters. Several trenches cut to the northwest of the anomalies to intercept presumed NW-trending structures found no mineralization, so the exploration was terminated. Additional sampling was undertaken in 2004 and expanded in 2006. The following comments are limited to this prospect, now referred to as the Big Tobin prospect.

Geology and Structure

Local bedrock adjoining both sides of the Big Tobin prospect (Figure 13) consists of quartz-sericite-chlorite schist and minor carbonaceous quartzite variably altered and bleached. Near the shear zones bedrock is a softer carbonaceous schist altered to soft, locally sheared, clayey rock with variable to minor sericite, boxwork, and shattered narrow quartz veinlets. Limonitic staining is generally present. Examination in 2004 tentatively identified an underlying NE-trending set of shear zones. Although there is no bedrock exposure, several thin quartz veins within this zone of sheared schist, limonitic clay, and quartz appear to strike northeasterly through the saddle. Strike measurements of N30E and particularly N70E are suggested by orientation of gouge debris on the surface. Strike of the Big Tobin shear structure can be approximately projected about 900 feet southwest to the vicinity of the Mikado Mine and Trench 2E.

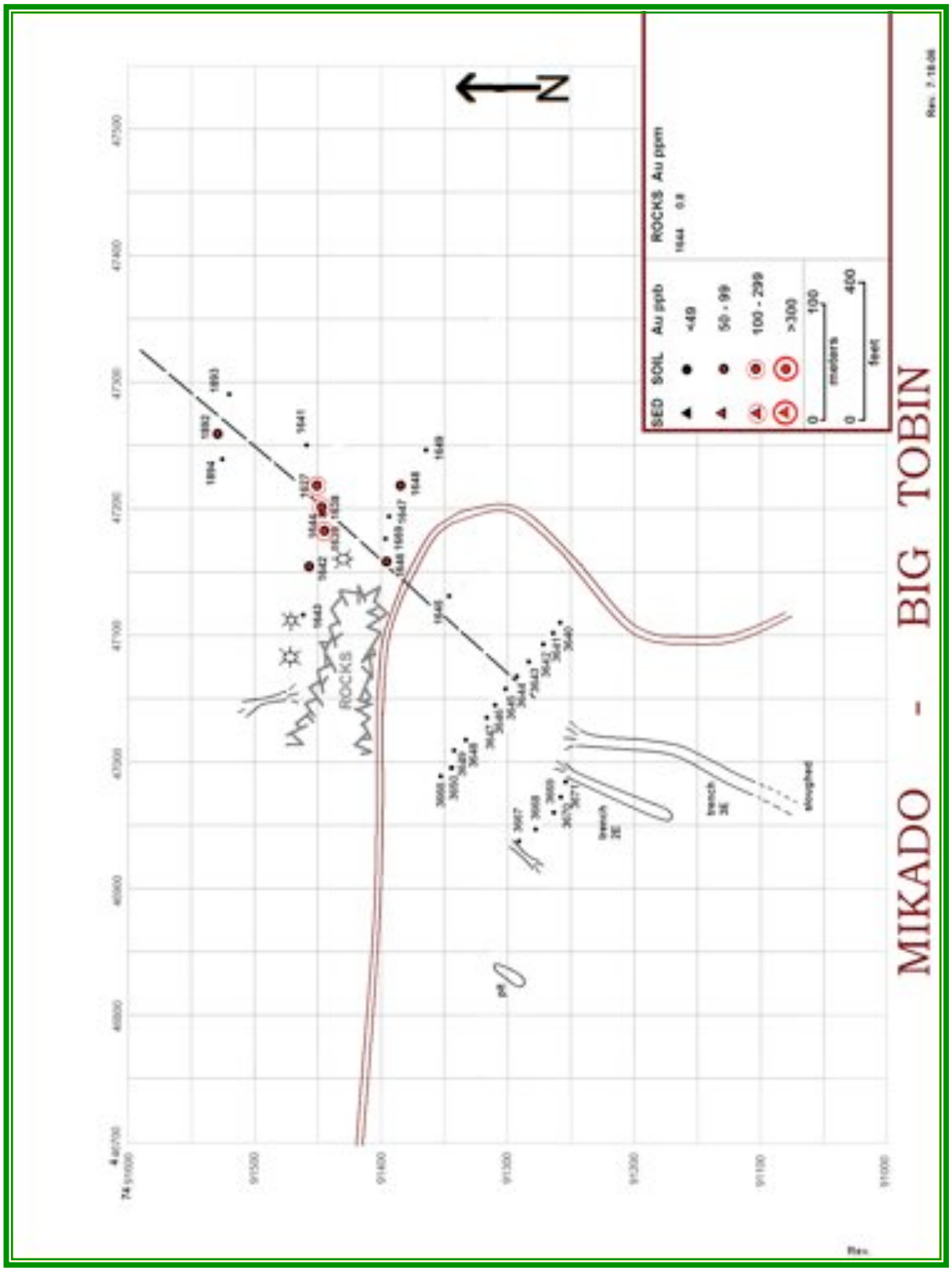


Figure 13. Big Tobin prospect map showing gold analyses.

Geochemical Sampling and Mineralization
A total of 31 soil samples were collected and results show anomalous gold and arsenic values approximately following the northeast structural direction of the shear zones. Soil sampling downhill of the road encountered an increasing thickness of wet colluvium that may have limited geochemical dispersion of metals in soil.

Recommendations
The northeast mineralized shear structures combined with the northwest-striking Mikado system is an apparent conjugate set of deep-seated faults typical of mesothermal systems. Other auriferous northeast faults may occur in the Mikado area and should be investigated.

Prospect area mapping needs to be expanded. All surface workings and available bedrock in the Mikado area should be mapped and included on the attached map set. Particular attention should be given to the intercept of the northeast mineralized shear structures with the northwest Mikado system as a potential focus of mineralization.

The soil anomaly reported from sample site LS3896 should be re-examined.

Boulder Creek Prospect

History and Location
The Boulder Creek area has not been reported on previously; there are no prospect reports of any work there in the Company files. No old workings were found in the field. A reconnaissance evaluation, including stream sediment sampling and several soil sample lines, was performed in 2006. Work was done from a spike camp located to the west of the map area. Access is by foot from the Tobin Creek Camp reservoir.

Geology and Structure
The map area, see Figure 14, is mostly within a large cirque from a former valley glacier that fed into a south-flowing trunk glacier that followed the present valley of the North Fork of the Chandalar River. Above an elevation of about 3,000 feet the former glaciation has exposed relatively large areas of black schist bedrock believed to be of the Chandalar Lower Plate sequence. Below this elevation remnant till sheet covers most of the surface.

The Mikado shear zone can be readily traced across the map area from where it crosses the ridge at a prominent saddle between Woodchuck Creek and an upper ravine of Boulder Creek. Following the fault zone to the northwest, it is observed to warp farther to the north and repeatedly bifurcate into a horse-tail of faults and parallel quartz veins. The northern strand of the fault zone was traced about 1.5 miles to the north-northwest of the map area.

An area about 350 feet long, consisting of acidic water seeps and a vegetation kill zone, was found overlying one of the strands and immediately downhill of another. See Figure 14. Measurements of pH as low as 3.0 were obtained. A striking orange lichen covers rocks in the drainage downstream of there as seen in photograph 14d. The acidic seeps appear controlled by the southern splay of the Mikado shear zone. No water sample was obtained due to heavy rains that diluted the surface and spring waters. A water sample was collected from the north fork of Boulder Creek (off map) where the Mikado north strand crosses the creek and results in iron staining and precipitate. No unusual metal concentrations were detected in the water or sediment from this site.

Geochemical Sampling and Mineralization

At least five or more quartz veins are present, generally consisting of iron-stained quartz chips and cobble-size fragments. None of the soil samples reported anomalous concentrations of gold, arsenic, or other pathfinder elements in the Boulder Creek map area.

Recommendations

No further work is recommended in the Boulder Creek area at this time.

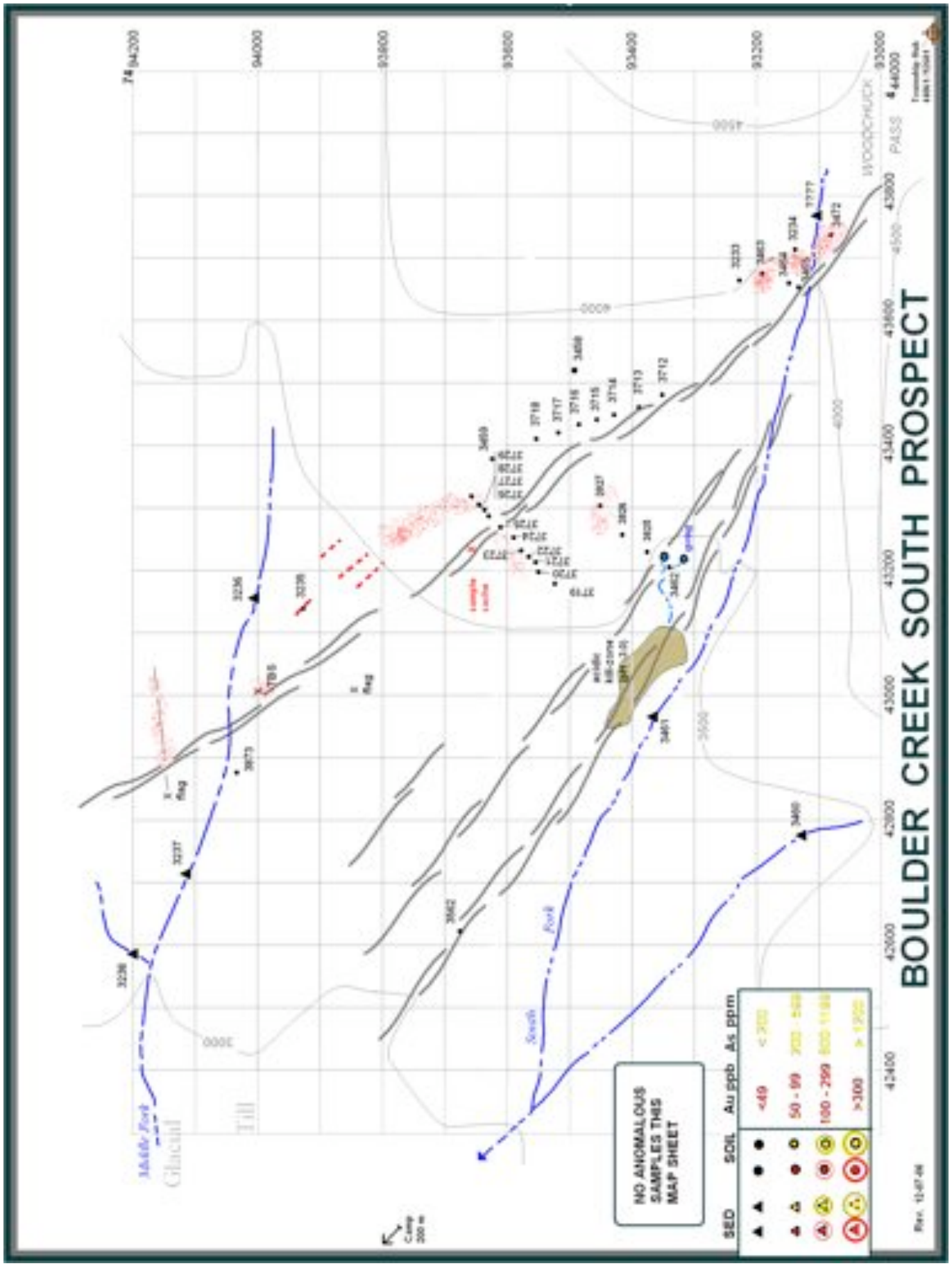


Figure 14. Boulder Creek South prospect map showing gold and arsenic analyses.

Figure 15. Photo-set of Boulder Creek area:

15a bifurcating splays of the Mikado shear zone visible in hillside,

15b looking into Boulder Creek cirque

15c vegetation kill zone, acid tolerant moss, pH 3.0-4.0

15d brilliant orange lichen coating rocks in acidic creek bed; note that there's no vegetation in contact with the water.

The Caribou Gulch - Kelty Prospect

History and Location

Company records report 1930s-era prospecting of quartz veins on or near the rugged high ridge between Caribou Gulch and the upper reaches of McNett Fork and Boulder Creek. Claims located at the time were referred to as the Kelty Group. To the east on lower Caribou Gulch the patented group of claims that compose the Little Squaw Group was recorded July 20, 1929 and included the Cosine No. 1 and Cosine No. 2 claims, which lay west of Big Squaw Creek. The 1931 Mineral Survey plat shows a common end line "discovery site" of Cosine No. 1 and No. 2 on the right limit bench above Caribou Gulch.

In 2004 and again in 2006, the area was briefly revisited, apparently for the first time following the 1930 mineral survey. Old hand-dug workings were relocated at the map locations of samples LS1421 high on the ridge and LS3182 on the right limit of Caribou Gulch (see prospect map Appendix C). In 2006 several foot traverses and brief helicopter stops were made on the 5,100-foot ridge between McNett Fork and Boulder Creek (sample sites LS3937-38, LS4005-06).

Access to the area is by foot from the Chandalar prospect near the Eneveloe Mine or by helicopter. Steep talus-mantled slopes can be difficult to negotiate on foot and require experienced field personnel. Due to the altitude, severe weather can be expected at any time of the field season.

Geology and Structure

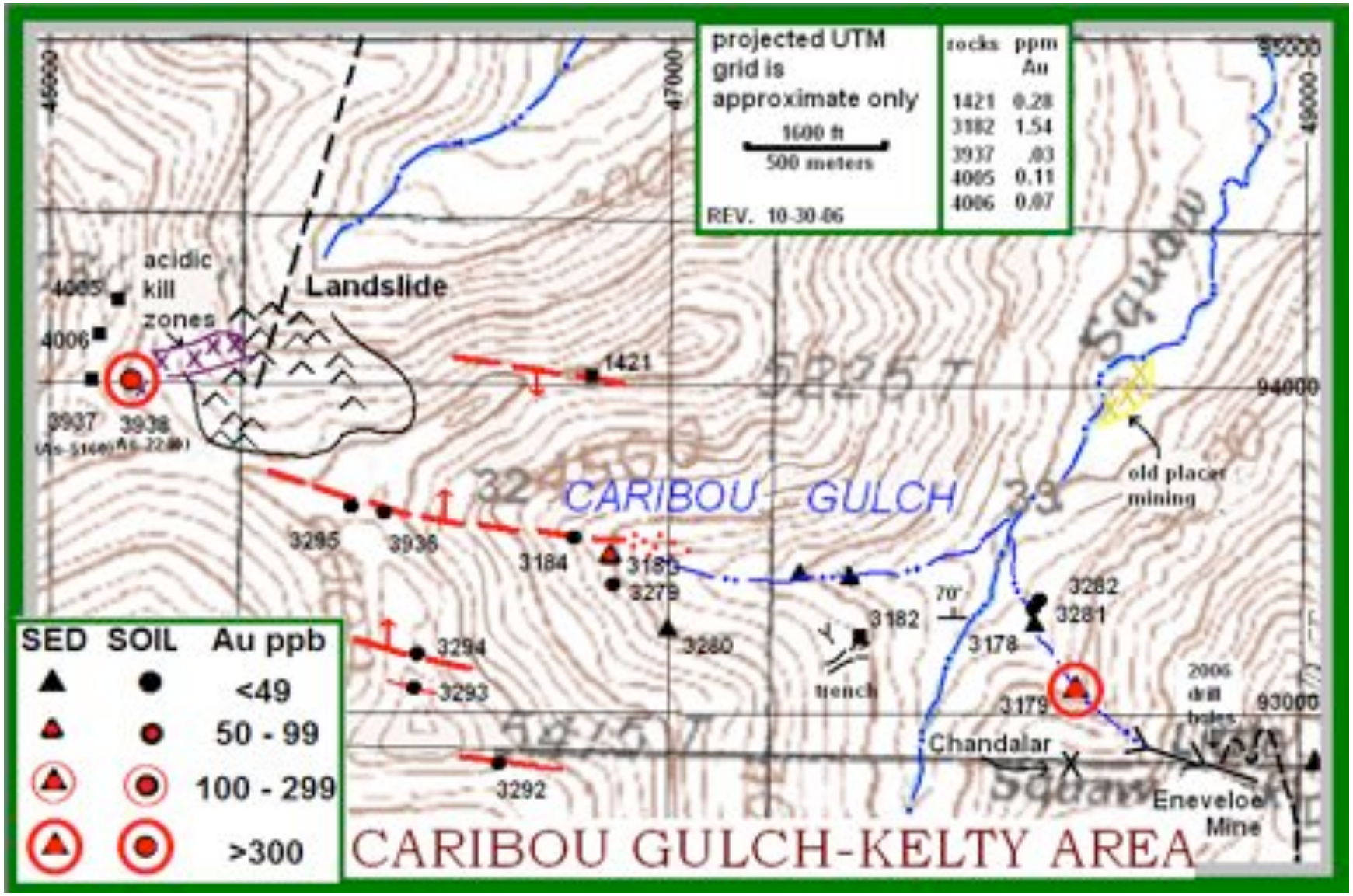
Only regional scale mapping of the area has been attempted to-date. Caribou Gulch is steeply incised and deeply mantled in talus. There is evidence that a small ice mass accumulated at the head of the gulch at the time when a valley glacier was present on Big Squaw Creek. Local geology was not mapped but rock aggregate in Caribou Gulch includes various schist units found elsewhere in the district, including a distinctive black slate unit, also seen in outcrop on the ridge, and a tan-weathering pyritic schist. Carbonate schist is also common. Greenstone and carbonate-altered greenschist is widely seen as scree and avalanche deposits.

Northwest shear zones and massive white quartz veins related to the multiple Eneveloe and Summit shears cut the north-trending ridges and create sharply incised saddles.

Geochemical Sampling and Mineralization

Gold mineralization in the Kelty area is the westernmost known extent of the Chandalar district. Recent sampling has indicated gold and arsenic values apparently associated with the black to gray schist, as well as shear-hosted quartz veins. As depicted in Figure 16, the Eneveloe quartz veins were traced westward along Caribou Gulch to the high ridge west of Big Squaw Creek. No significant mineralization was found within the Caribou Gulch veins, however, gold values were detected in an old trench where a sample of the dump (LS3182) returned 1.54 ppm Au. No vein quartz is present in the trench and only a minor amount of metamorphic quartz was seen. The working is almost 100 feet long, consisting of a deep hand-dug trench, 6 feet or more deep, oriented 070°. Downslope to the north an adit had been collared but not driven.

On the following page:
Figure 16. Caribou-Kelty prospect map showing gold analyses.


projected UTM grid is approximate only
1600 ft
500 meters
REV. 10-30-06
rocks ppm Au
1421 0.28
3182 1.54
3937 .03
4005 0.11
4006 0.07
acidic kill zones
Landslide
4005
4006
3937
3938
1421
CARIBOU GULCH
3295
3936
3184
3185
3279
3280
3294
3293
3292
3182
70°
3178
3282
3281
trench
3179
2006 drill holes
Chandalar
Eneveloe Mine
old placer mining
Squaw
94000
93000
SED SOIL Au ppb
<49
50 - 99
100 - 299
>300
CARIBOU GULCH-KELTY AREA

On the high ridge in the west of the map area, pods of quartz breccia were found and sample LS3937 contained 5,160 ppm As with trace gold (33 ppb). Downslope to the east are a series of mossy kill zones similar to those seen elsewhere in the district, such as at Ratchet Ridge. Here the kill zones appear aligned to a westerly striking fault or shear structure. A single soil sample (LS3938) from the uppermost zone returned 0.595 ppm Au and 2,240 ppm As. About 800 feet north along the ridge, northwesterly striking altered zones with quartz veining contain minor gold values. Time did not permit further sampling. These zones extend about 1,200 feet easterly to an apparent landslide believed to be related to the weakened mountainside structure. A 040-050° major lineament, seen on high-altitude imagery, also intercepts the NW-trending faults in the immediate area.

Of further note in the east of the map area is a sediment sample (LS3179) in Robbins Gulch that reported 0.591 ppm Au. This was the highest Au value in sediment found in the district. Source of the anomaly is likely related to the Eneveloe prospect and should be further evaluated. A high-grade intercept in the 2006 drilling near the Eneveloe 100 Level (EN-20) to the southeast may be related.

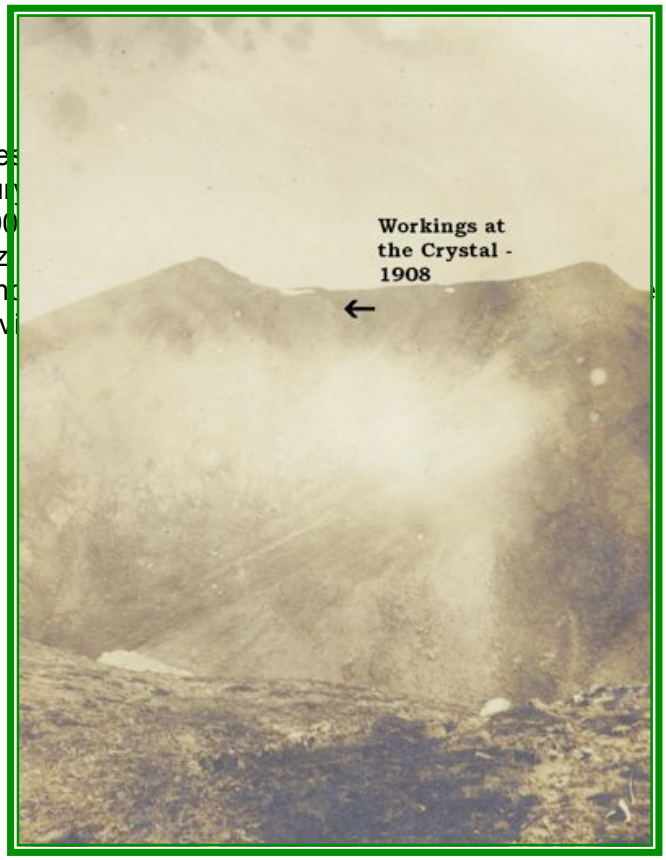
Recommendations

The area warrants a more thorough mapping and reconnaissance sampling program. Several magnetometer lines should be completed north-south across the acidic vegetation kill zones and the cause of the large landslide investigated. A soil grid may be possible in the area of the old trench on Caribou Gulch and should be attempted as soon as possible. Weather permitting, a small spike camp could be placed in upper McNett Fork below the landslide or at several sites on Caribou Gulch. At least intermittent helicopter support will be necessary to adequately assess the area.

Crystal Prospect

History and Location

The Crystal veins strike across a ridge cre
McLellan Creeks. At the turn of the centur
have assayed 10 to 43.18 opt gold. In 190
Spring Creek stamp mill where over 40 oz
short crosscut were developed on the prin
(Figure 17). There is no record nor site ev
explored since 1908.



In 2004-2006 surface exposures were sampled and vein float was traced to the northwest. The site was made accessible via the new road built along the east ridge. Two reverse-circulation drill holes were drilled to test the principal vein. The Crystal prospect is included with the McLellan prospect on the attached map set but the McLellan area is more closely associated with the Aurora Gulch prospect. See the Aurora Gulch report for further discussion of the McLellan prospect area.

Geology and Structure

Bedrock hosting the Crystal veins is both a gray muscovite schist and black carbonaceous phyllite and schist. Greenstone occurs to the east and sills cut the hill to the north that is otherwise composed of a gray mica quartzose schist to quartzite.

Several splays of a broad northwest-striking shear zone have cut the ridge and a saddle has consequently developed by erosion. The shear is tentatively inferred to be an extension of the Little Squaw shear zone exposed on the opposite side of the valley, about a mile west. Much of the intervening area is heavily obscured by talus, solifluction lobes and especially massive debris solifluction flows and debris fans emanating from the weathered and eroding shear zones on both sides of the valley. Mineralized quartz float can be traced northwest and north from the ridge prospects down to a sidehill elevation of about 4,000 feet before it is lost under talus.

The shear zone and quartz veins could not be traced east of the ridge where it is complexly faulted, perhaps abruptly terminated against a massive greenstone sill. There is slickenside evidence of NE-SW strike-slip displacement of the schist and veins; mapping indicates similar strike-slip movement on the greenstone. Most of the greenstone contact is buried and covered by talus, however, in several places the greenstone appears to be in thrust fault contact with the schist. The thrust contact, where visible, dips moderately to the north. If the shear and accompanying veins continue east below and beyond the overlying greenstone they would be deeply buried by permafrost colluvium on the lower slopes above Little McLellan Creek.

Figure 17. Crystal prospect, as seen from above the Little Squaw mine, 1908. Photograph by S. Marsh.

Shallow to moderately north-dipping thrust faults spaced about 30 feet apart vertically appear to have also disrupted the schist and quartz veins exposed in the saddle. As visible in Figure 18, several of the vein exposures are 'topped' by apparent slippage indicating probable south displacement of the missing 'top' portion of the veins. A south-directed displacement above the thrust plane is counter to the regional northward thrust setting, but is suggested by the locations of the quartz float to the north at elevations below the ridge saddle. A similar displacement is a possible explanation for the abrupt lower limit to the principal vein exposure on the west slope of the saddle.

Sampling and Mineralization

Much of the old workings is now sloughed or covered by slide rock, however, a site believed to be the old shaft was found. A random chip sample (LS1667) of the 8-10 inch banded zone of 'ribbon' quartz assayed 114.5 ppm gold. The banded zone appeared to be the footwall zone of a 4- to 6-feet wide massive white quartz vein that bears a close resemblance to the Little Squaw vein. Below the site of old workings the vein is lost; probably fault displaced, and correlates(?) to quartz float found downhill and to the north.

Closer to the ridge crest, where the shear forms a saddle feature, prospect trenches and past high-grade mining have exposed the quartz vein. A continuous chip sample of the massive white quartz exposure returned only trace gold (LS1436). A sample of finer grained quartz with minor graphite and trace arsenopyrite on the footwall side of the vein (left of massive quartz in Figure 19) returned 3.27 ppm gold (LS1437), however, this zone of the

Figure 19. A 4- to 6-foot thick massive quartz vein; the footwall banded zone would have been on the left of the massive quartz component of the vein shown here (pink flagging) but has been removed by high-grade mining in the past. Banded quartz float downhill of the photograph assayed 114.5 ppm gold.

vein was oxidized, very poorly exposed, and the banded zone had been removed in the past high-grade mining.

The Crystal prospect consists of at least four, possibly six, parallel quartz veins, but faulting makes it difficult to follow more than short segments of each vein or float train. A chip sample (LS1435) from a nearby parallel 3-foot thick massive quartz vein containing no visible scorodite or sulfide minerals assayed 0.14 ppm gold. A random sample (LS1666) of another vein immediately to the south assayed 7.59 ppm gold.

Two drill holes, CRY-30 and -31, were collared as shown on the map set, Figures 20 and 21. Hole 30 was oriented N20°W at a declination of 45°. The hole was to intercept the principal vein about 125 feet below the general location of the old shaft but apparently undershot a thrust fault displacement on the vein, as described above. The hole was drilled to 210 feet, which was the full length of available drill rod. Because no apparent vein was intercepted only every fifth interval was assayed. Below drill depths of 175 feet variable hematitic-staining and minor stained quartz were encountered in the carbonaceous phyllite to schist. Intervals 180-185 feet and 205-210 feet assayed 0.223 and 0.165 ppm Au, respectively. This alteration and mineralization (Figure 20) is similar to the auriferous schist found in drill hole SUM-12 at the Summit prospect and what is mapped at the Aurora Gulch prospect, where hematite is peripheral and outboard of the gold values.

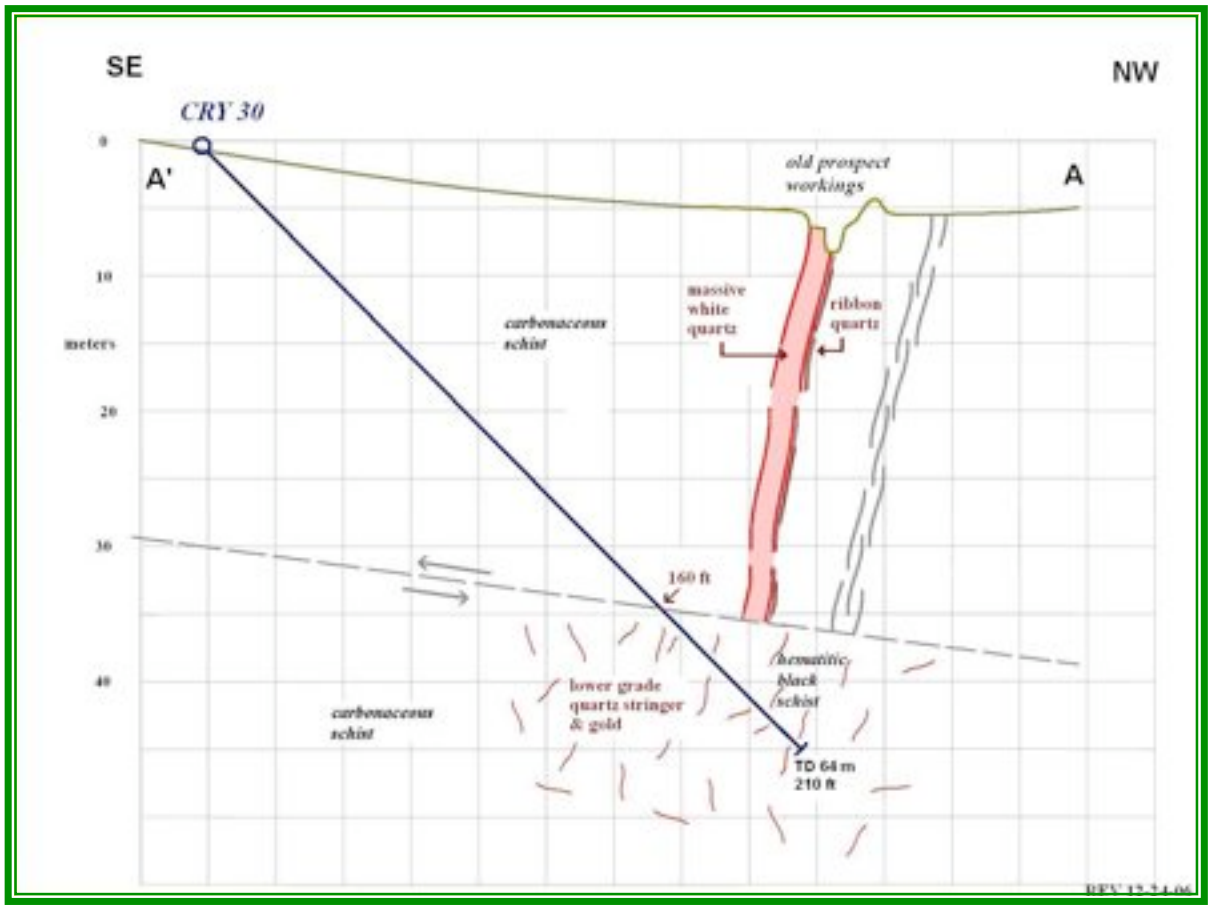


Figure 20. Interpretive cross-section of drill-hole CRY-30 and the principal Crystal vein, view looking southwest. Direction of the thrust displacement tentatively based on distribution of mineralized quartz float northward at lower slope elevations.

Hole CRY-31 was to intercept the 4-foot wide vein exposed by a trench excavated earlier in the year; it was drilled N20E to 170 feet. Iron-stained quartz and schist were found between intervals 25 and 40 feet but not closer to the interval of about 90 to 110 feet, where the vein would have been expected, again suggesting shallow-dipping lateral displacement. No significant gold values were reported for hole CRY-31.

Recommendations

Remaining un-assayed drill intervals should be assayed, particularly below drill depth 150 feet on drill hole CRY-30. Arsenic and antimony should also be analyzed.

Due to the low-angle fault complexity in the vicinity of the prospect trenches near the top of the ridge and the complex fault contact with the greenstone on the east, no additional work is recommended at this elevation. Instead, mapping and surficial sampling, including several lines of soil samples, should be done at least 300 feet elevation lower on the west-facing slope.

The role that thrust faulting may have played, affecting the ridge top prospects along ridges both east and west of Little Squaw Creek, should be studied. It is hypothesized that a post-

mineralization episode of south-directed thrust faulting is present and has laterally disrupted the northern Chandalar district vein systems at unknown depths.

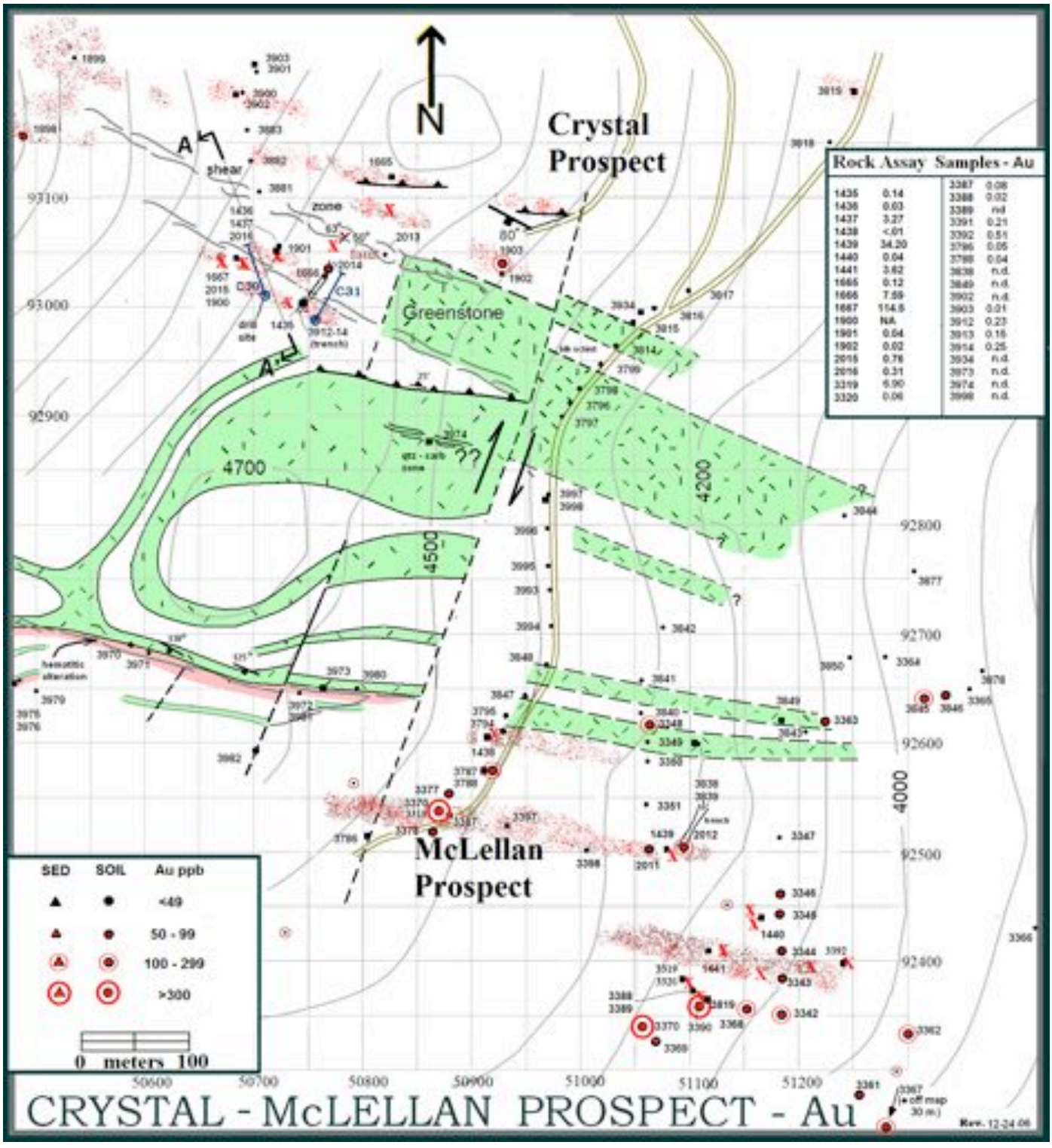


Figure 21. Crystal – McLellan prospect map showing gold analyses. For arsenic and antimony distributions, see Appendices D and E.

Eneveloe Prospect,
including Jupiter, Chandalar, Woodchuck, Big Squaw, and Bonanza Prospects

History and Location

A group of quartz vein prospects on the south flank of Little Squaw Peak was explored by prospectors shortly after the discovery of gold in the Chandalar. As early as 1911 there are Company reports of 0.33 to 0.87 oz Au/ton from the 15- to 20-foot wide quartz outcrop where the 100 Level adit is now. Also about this time an adit was unsuccessfully driven on the Chandalar prospect where a sample of banded quartz containing 49.98 oz Au/ton has been reported; short adits were also driven on the Jupiter and the Big Squaw prospects, and a shallow shaft sunk on the Woodchuck prospect. All the prospects were explored along strike with hand trenches. There is also evidence of very old placer mining below the Eneveloe veins on Big Squaw Creek and the lower end of Robbins Gulch.

In 1981, the Company lessee, Chandalar Development Company (CDC), completed 1,113 feet of AQ core drilling but with poor recovery. The 100 Level adit was driven and the 200 Level extended to expose a 1 oz Au/ton or more ore shoot. A small inferred resource of 5,356 ounces at 1 oz Au/ton was calculated to exist between the two levels. The CDC also dozer trenched and explored the Eneveloe saddle area with a dozer-mounted percussion drill, and they built an access road to the Chandalar prospect.

Reconnaissance mapping and sampling were begun in 2004. In 2006 five RC drill holes were bored into the Eneveloe and three at the Jupiter prospect. Mine roads have been improved and connect all the prospects to the main camp on Little Squaw Creek.

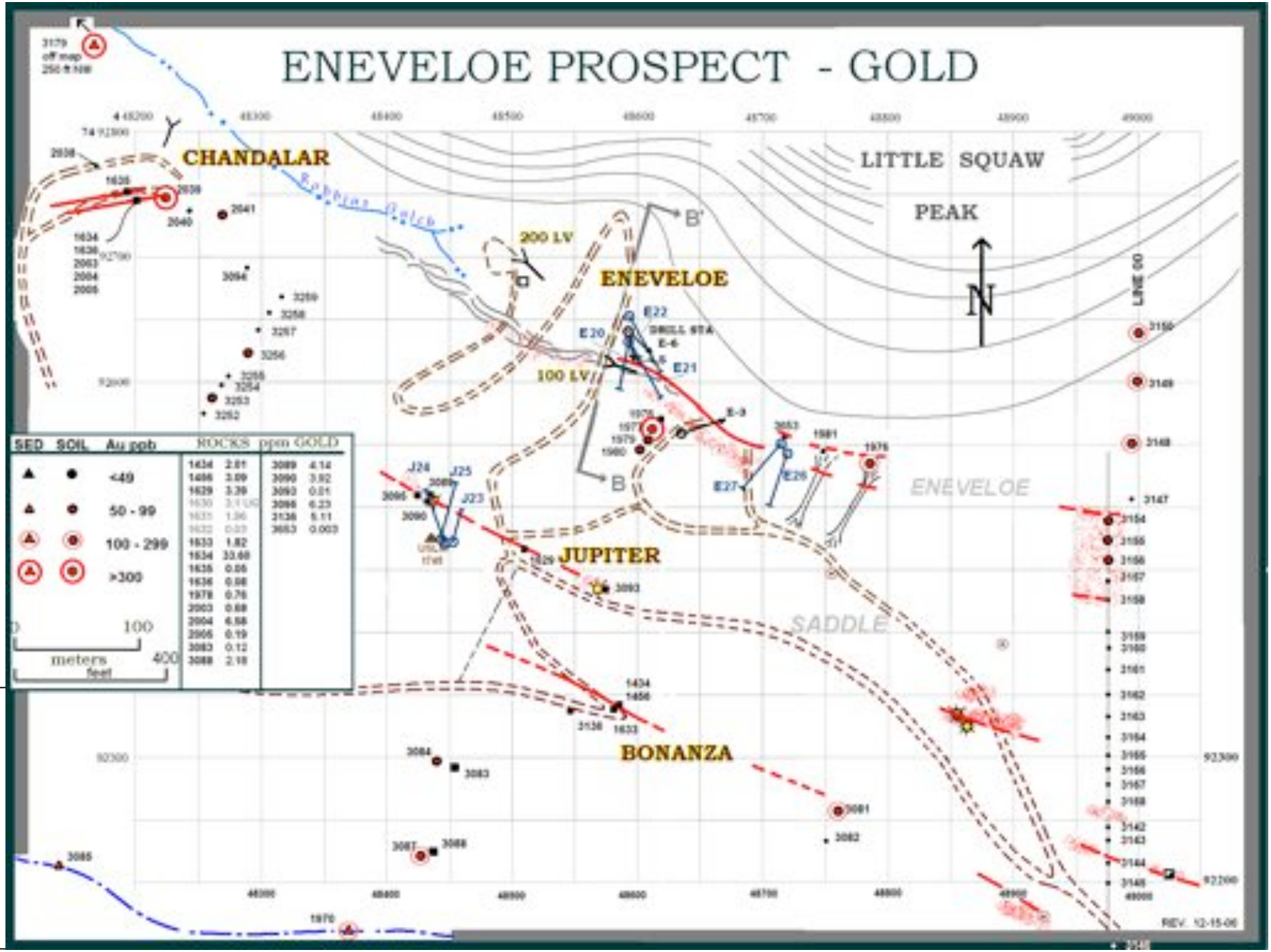
Geology and Structure

The prospect area is underlain by gray to black carbonaceous schist of the Chandalar upper thrust plate. A lighter colored gray muscovite chlorite quartz schist generally forms the higher elevations and isolated landslide(?) blocks of bedrock on the steep valley slopes. A north tilted unit of mostly resistant gray schist also forms Little Squaw Peak and is an abrupt north limit to the outcrop of carbonaceous schist underlying and hosting the Eneveloe veins.

The Eneveloe veins are located along 105° to 120° faults that dip steeply north and are closely associated with the Eneveloe shear zones, which locally form the footwall. Several other shear zones appear to be present nearby, located both north and south of the Eneveloe veins. Together these zones form the broad Eneveloe saddle on the east of the prospect map (Figures 22 & 23). Numerous parallel faults and joints can be observed in the more resistant gray schist bedrock on the southwest slope of Little Squaw Peak.

The Eneveloe veins project northwest under Robbins Gulch at least as far as Big Squaw Creek, and the Jupiter, Bonanza, Woodchuck, and possibly the Chandalar prospects occur along several other closely spaced veins that are subparallel to those of the Eneveloe.

The Big Squaw Creek valley was glaciated by a valley glacier fed from cirques to the south and west of the valley headwall; bedrock scouring is visible near the mouth of Robbins Gulch. The Eneveloe prospect area shows no evidence of ice movement and was likely above the ice level of the valley. Locally the area is a shingled, steep, periglacial terrain where landslide features and solifluction are common. The Chandalar vein exposure, for example, was found to be hosted in a large, somewhat rotated landslide block of bedrock that has been displaced from the ridge slope to the south. This dislodged block, at least 65 feet or more across and as much wide, is bounded by open cracks observed to extend 15


ENEVELOE PROSPECT - GOLD
CHANDALAR
LITTLE SQUAW
PEAK
ENEVELOE
200 LV
100 LV
JUPITER
SADDLE
BONANZA
N
B
B'
E20
E21
E22
E23
E24
E25
E26
E27
E-3
E-4
E-5
E-6
J23
J24
J25
LINE 50
SED SOIL Au ppb
<49
50 - 99
100 - 299
>300
0 100
meters
400
feet
ROCKS ppm GOLD
1434 2.01
1456 3.09
1629 3.39
1633 1.82
1634 33.60
1635 0.05
1636 0.08
1978 0.76
2003 0.69
2004 6.58
2005 0.19
3083 0.12
3088 2.18
3089 4.14
3090 3.92
3093 0.01
3096 6.23
3136 5.11
3653 0.003
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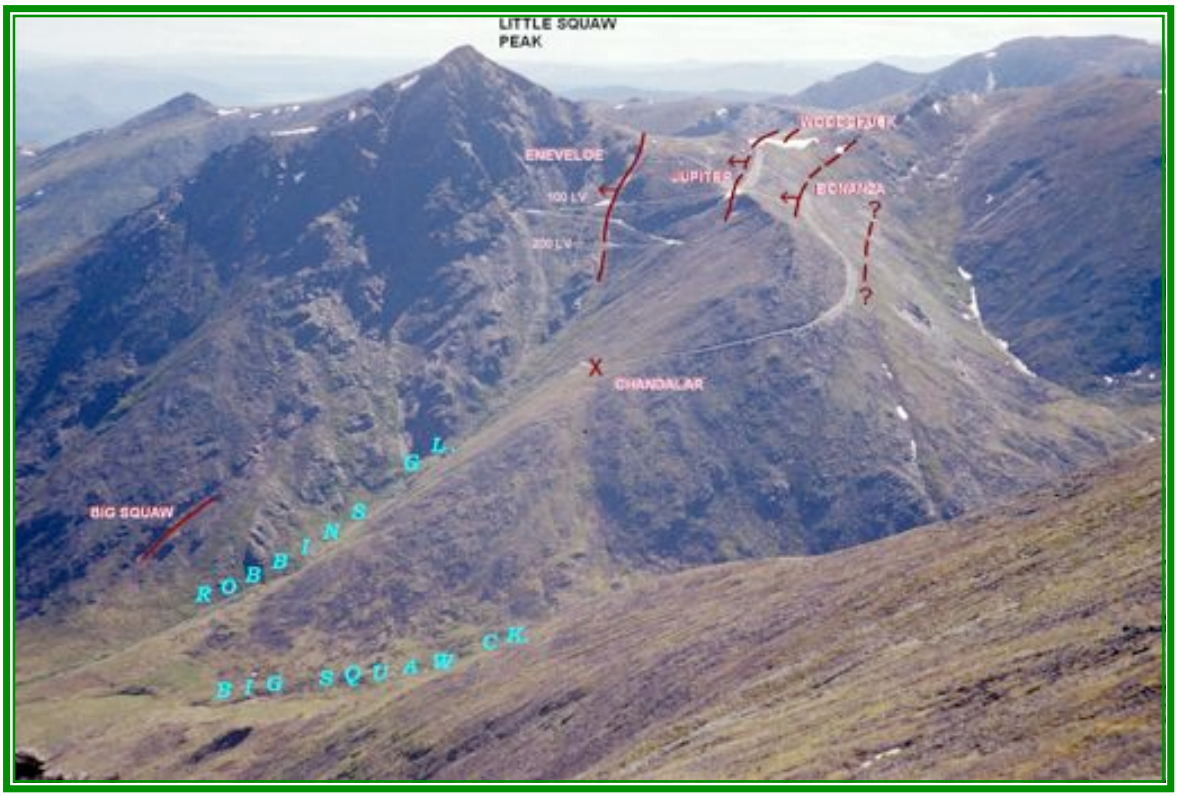


Figure 23. Eneveloe area quartz vein prospects as seen from ridge to the west. Veins are mostly hosted in shear zones that dip steeply north (left in photo) toward Little Squaw Peak.

vertical feet into the ground. The west extension of the Jupiter vein prospect may correlate to the displaced block hosting the Chandalar vein, indicating about 175-250 feet of displacement.

All of the veins, including the principal Eneveloe veins, are among those within a wide shear structure that strikes eastward along a topographic depression incised into the wall of the next valley east, Little Squaw Creek, then traceable to and thought to underlie the Rock Glacier prospect.

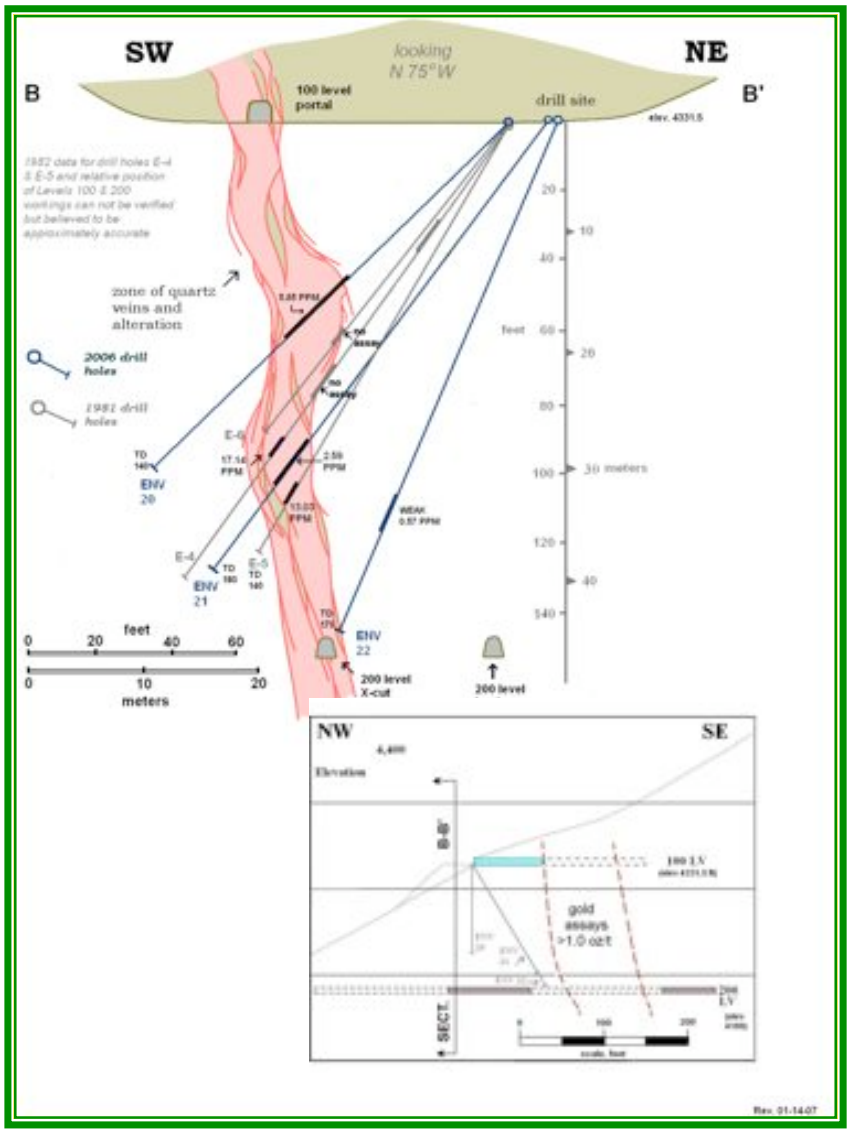
Geochemical Sampling and Mineralization

Eneveloe Mine: CDC calculated that the Eneveloe Mine contains at least a small inferred resource of 5,356 oz Au/ton. A high-grade ore shoot, exposed in 1981 for 70 feet on the 200 Level, yielded assays of 0.5 to 10.0 oz Au/ton. The 100 Level adit that was driven into a massive quartz outcrop in 1982 encountered the vertical extension of the high-grade ore shoot (plus-one oz gold/ton mineralization) found on the lower level. On the 100 Level finely ground quartz with plus-2.0 oz Au/ton occurs on the north side of the massive quartz vein. Access to the high-grade lens on both levels is now blocked by caved or hazardous adits, so verification is not possible. As an alternative, a line of soil samples (samples LS1977-80) was placed across the shoot's projection to the talus-covered surface; sample LS1977 was anomalous with 0.39 ppm Au.

In the 1981 effort, six diamond drill holes, AQ size, totaling 1,120 feet were done, but recovery was a problem. There was no return on Holes E-1 and E-2, only poor return for E-

3, however, veins were cut at 65-foot and 158-foot intercepts. There was poor sample return and no assays were performed. An intercept of uncertain thickness was reported on E-5 assaying 0.38 oz Au/ton (13.03 ppm Au), and 0.50 oz Au/ton (17.14 ppm Au) was reported from hole E-4. Nevertheless, the drill data, combined with information from the development sampling on the 200 Level, the1982 channel sampling on the 100 Level, and the 2005 surface samples all support the presence of the high-grade ore shoot exposed in 1981. This mineralized structure rises to near-surface and incorporates both vein exposures, 100 Level and 200 Level, that together are apparently part of a larger, 15- to 20-foot wide, vein zone.

Drilling in 2006 (Figure 24) attempted to verify the earlier core drill and tunnel assays. Reverse-circulation holes ENV-26 and -27 were drilled from a pad built about 65 feet elevation above the 100 Level adit and north of the inferred trace of the veins. Hole 26 was oriented S20°W at a -45° inclination; hole 27 was oriented S40°W also with a -45° inclination. The results showed no significant intercepts although a quartz vein intercept at 65-80 feet on hole 26 and 100-110 feet on hole 27 were cut. The best intercept on hole ENV-26 is 0.21 ppm Au, and only 0.09 ppm Au on an interval in hole ENV-27; neither intercept was associated with a quartz vein.



A viable interpretation holes ENV-26 and -27 is that they may indicate the mineralized ore shoot dissipates to the east and to the higher elevation. Alternatively, it is possible the auriferous veins or vein zone of the Eneveloe have been offset north at the drill site as suggested by the anomalous soil values in samples to the east on sample line 00. The vein cut by holes 26 and 27 would therefore correspond to the barren veins exposed at the surface, as well as the upper vein reported in the

Figure 24. Interpretive drill sections at the Eneveloe 100 Level showing 1981 and 2006 quartz intercepts with gold assays, including a longitudinal section of the Eneveloe Mine.

1981 hole E-3. The soil data, particularly samples LS3148-50, indicate an auriferous zone lies to the north buried by slide rock off Little Squaw Peak. Also, sample LS1976 located just north of the north-south dozer trenching points to an uphill gold target, possibly also representing the lower vein reported in hole E-3.

Reverse circulation drill holes ENV-20, -21, and -22 were drilled from the 1981 drill site about 50 to 65 feet north of the 100 Level adit (Figure 25). Drill hole 20 largely confirms the 1981 drill results; an average of 5.85 ppm Au between 60 and 85 feet, within which the interval 60 to 65 feet assayed 25.4 ppm Au. Hole 21, angled to the east, also reported the quartz vein zone, albeit thinner and lower grade. The interval between 115 and 130 feet averaged 2.59 ppm Au over 15 feet. ENV-22 had a weak intercept at 135 to 145 feet of 0.57 ppm Au, but the hole was stopped short of its primary target. Mineralization on the vein system between the 100 and 200 Levels appears to extend west farther and deeper than previously thought, as indicated in the longitudinal section. Of note is a sediment sample about 2,000 feet down Robbins Gulch that assayed 0.591 ppm Au; this the highest concentration of gold in a stream sample found in the district.

Based on the 2006 and earlier drill and tunneling results it is apparent that the Eneveloe comprises a zone of massive quartz or a swarm of discontinuous quartz veins that generally follow the subparallel splays and fractures of the shear zone(s). Some of the quartz veins are auriferous while others are very low grade or barren. Masses of contorted carbonaceous schist are entrained within the vein set. Some of the quartz veins pinch and swell, as seen in (Figure 25). They are generally composed of finely pulverized quartz as seen in the photo but also form massive veins of more competent quartz as seen at the adit on the 100 Level. There are also gold-poor veins that are parallel to the Eneveloe vein zone. Gold-poor veins are cut by ENV-22 and reported from hole E-6 in 1981 and possibly the vein cut by ENV-26 & -27 and E-3.

Figure 25. Eneveloe area prospects

Figure 25a, left. The Eneveloe pulverized quartz vein pinching and swelling on the 200 Level;

Figure 25b, below. The banded, or ribbon-type, of quartz from the Jupiter prospect;

Figure 25c. the drilling below the 100 Level adit in 2006; and

Figure 25d. The Chandalar prospect appears hosted in a landslide block of black schist

The Eneveloe vein system is open to the west, possibly underlying Big Squaw Creek valley and extending up the west side of the Big Squaw Creek valley in the vicinity of Caribou Gulch. Abundant vein quartz was found near the head of Caribou Gulch but samples returned no significant gold values. Gold values were found in old prospect workings in schist bedrock near Caribou Gulch but no quartz veins were evident (see Caribou Gulch-Kelty prospect report).

Jupiter Prospect: A 1911 report described the Jupiter as a 6-foot wide vein that assayed 0.39 oz Au/ton (13.37 ppm Au). The old 20-foot long adit along the hanging wall of the Jupiter vein was found caved in 2006, however, two samples (LS3089 and LS3090) of scorodite quartz and clay from the dump assayed 4.14 and 3.92 ppm Au respectively. Vein rock on the dump includes a banded 'ribbon' type of quartz seen in Figure 25, suggesting the Jupiter is a composite vein of massive white quartz, arsenic-rich pulverized quartz-clay zone, and a 'ribbon' quartz component. Sample LS3095, representative chips from the banded rock, assayed 6.23 ppm Au.

In 1981 the CDC dozer-trenched the Jupiter about 325 feet to the southeast and reported up to 0.36 oz Au/ton (12.34 ppm Au) from a 3-foot vein. Systematic channel sampling of the scorodite-stained vein along 150 feet of strike gave an overall average grade of 0.08 oz Au/ton (2.75 ppm Au). The Jupiter vein appears to correlate with a vein exposure in the Eneveloe Saddle about 1,000 feet to the southeast of the dozer trenching. However, no mineralization was seen in the vein there.

In 2006 three reverse circulation holes were drilled as shown on the prospect map (Figure 22). Because of topographical constraints the drill holes were oriented north at an declination of -50° to intercept the steeply north-dipping vein. Hole JUP-23, oriented N20°E, encountered a heavily scorodite-stained quartz zone at 45 feet but air circulation was lost into voids and, except for blow-by, no sample was returned. Hole JUP-24 was angled to N15°W drilled to the full length of the available rod but did not reach the intended target and reported no significant gold intercepts. Hole JUP-25 was drilled again at the orientation of N20°E from a position slightly farther east and encountered the vein at 65 feet. Interval 65 to 75 averaged 2.31 ppm Au.

Chandalar: Samples from the Chandalar prospect have been reported to assay as high as 49.98 oz Au/ton. A 1946 report mentions a 24-inch channel sample with 2.26 oz Au/ton out of a 6-foot structure; similar assays were reported by CDC in 1982. In 2004, the exposure was reopened (Figure 25); an 18-inch channel of an iron-stained and scorodite section of the 3-foot wide vein assayed 33.6 ppm Au, another 24-inch channel sample, LS2004, assayed 6.58 ppm Au. The vein may have been wider, no upper contact was found, perhaps due to high-grade mining in the early years. The balance of the vein assayed only trace gold (samples LS1635-1636, LS2003, LS2005). Grains of gold could be readily panned from the outcrop. The vein is traceable in float for about 300 feet along a southwest strike which appears due to the rotation on the landslide block of bedrock in which it resides. Its original location remains uncertain but it may be an extension of the Jupiter that has gravity slipped northeast on the soft carbonaceous bedrock.

Bonanza: A composite vein of pulverized quartz, scorodite-stained clay and quartz, graphitic clay gouge, iron-staining, and more massive quartz forms a 9-foot wide vein exposed for about 85 feet along a road cut. Three end to end channel samples (LS1434, LS1456, LS1633) gave a weighted average grade of 2.71 ppm Au. A composite grab sample 130 feet west contained 5.11 ppm Au. The vein appears to extend at least 500 feet southeast to an anomalous soil sample, LS3081. A group of anomalies (samples LS3083, -84, -87, and -88) indicate another parallel vein may occur within 350 feet southwest of the Bonanza. In 2006 a drill pad was prepared over the Bonanza but the vein has not yet been drilled.

Woodchuck: A 3- to 6-foot vein can be traced for about 100 feet. An old report states it was prospected for a claim length and that free gold was found, subsequently a shaft was sunk ten feet or deeper on the vein. Another old report cites two assays of 0.04 and 0.06 oz Au/ton (1.37 to 2.06 ppm Au). No additional work has been done in recent years.

Big Squaw: The prospect is located west of the Eneveloe area prospect map. A vein 7- to 12-feet wide reportedly was trenched and a short adit driven but sampling returned only low gold grade. The prospect is located to the northwest of the prospect map area on the north side of Robbins Gulch. A sample in 2004 assayed 0.30 ppm Au. Two soil samples (LS3281 and -82) on the valley slope below contained only trace level gold.

Recommendations

Trenching and additional soil sampling should attempt to follow the auriferous vein(s) east from the 100 Level to determine if there is a fault offset resulting in drill holes ENV-26 and -27 being consequently located too far south. A drill hole should be collared at the site of ENV-26 & -27 and oriented north at a minimal declination. Additional drill exploration is recommended west of the 100 Level and initially a drill pad should be constructed near the 200 Level. Drill testing should be done below the ore shoot on the 200 Level tunnel.

An expanded soil grid should be attempted in the talus covered area around the Chandalar prospect to determine the source and extension of the vein exposure.

The subcrop of the Eneveloe vein zone and shear zone should be trenched, sampled, and photographed on both switchbacks between the 100 and 200 Levels. This work must be done at a time of extended dry weather. The road to the Chandalar prospect should be cleaned of slide rock and the road extended to the creek while attempting to cross-cut the Eneveloe vein zone in the process.

Considerable efforts, both in past years and during the present project, have been made to explore the Eneveloe saddle area. Although a gold target under the talus of Little Squaw Peak to the north of the saddle is suggested by soil data; sampling and trenching of the saddle to-date generally show only weak gold assays in prospect trenches, rock sampling, and soil geochemistry. Yet data from west of the Eneveloe saddle, discussed above, as well as from the Rock Glacier to the east of the saddle, indicate a wider array of higher grade gold in soil and rock samples. For instance, the average grade of 23 soil samples on Line 00 across the east side of the saddle is 0.031 ppm Au, yet the average grade of 16 samples on Line 10 (see Rock Glacier gold map) located 1,000 feet downhill to the east is 0.188 ppm Au. Both lines cross the same system of quartz veins. Similarly, the average grade of 14 samples on Line 14, 400 feet farther east yet, is 0.163 ppm Au. The Jupiter vein also displays a similar trend; grades of 2 to 6 ppm Au are found where the vein is explored west of the saddle but the vein appears barren across the top of the saddle. A chip sample (LS1591) of the inferred Jupiter vein and accompanying highly anomalous gold in soil values downhill toward the Rock Glacier assayed 5.69 ppm Au. For reasons unclear gold grade appears to be conversely proportional with elevation. Further investigation is suggested.

Indicate-Tonapah Prospect

History and Location

The Indicate-Tonopah prospect, on upper Big Creek, has also been known as the American Eagle and the Newton prospect in Company records. Placer gold was discovered shortly after the 1906 discovery of gold in the Chandalar on Little Squaw Creek. Evidence of hand placer mining can still be seen along the banks of Big Creek. The Star prospect is also in the area and is seen in the southern portion of the prospect map (Figure 26) The area is accessible via the Chandalar mine road system that connects all the camps and mines of the district.

Company reports describe a placer shaft in the bed of Big Creek, 40 feet deep, that exposed a wide quartz vein in bedrock. A 2-stamp mill was brought in for the 1909 season, but had only 30% recovery (Figure 27). Ore grade was said to be too low for mining at that time, but no gold assay values were given in the account. At a later date the Touissant Mill was built at the site, however, there is little reported on production. There are also reports of specimen-grade gold in quartz taken from this vein. Early reports also mention exploration of a 20-foot wide, east-west trending vein structure that contains free gold, pyrite, and arsenopyrite. Another 15-foot deep shaft reportedly encountered a quartz vein with free gold about 50 feet east of Big Creek, apparently in the same area as the first shaft, and is presently believed to be the same shaft shown on the prospect map (near sample LS2043), Figure 26. A 1930s assay representative of the dump near the Touissant Mill reported $11.20 at $35/oz which would indicate 10.96 ppm gold.

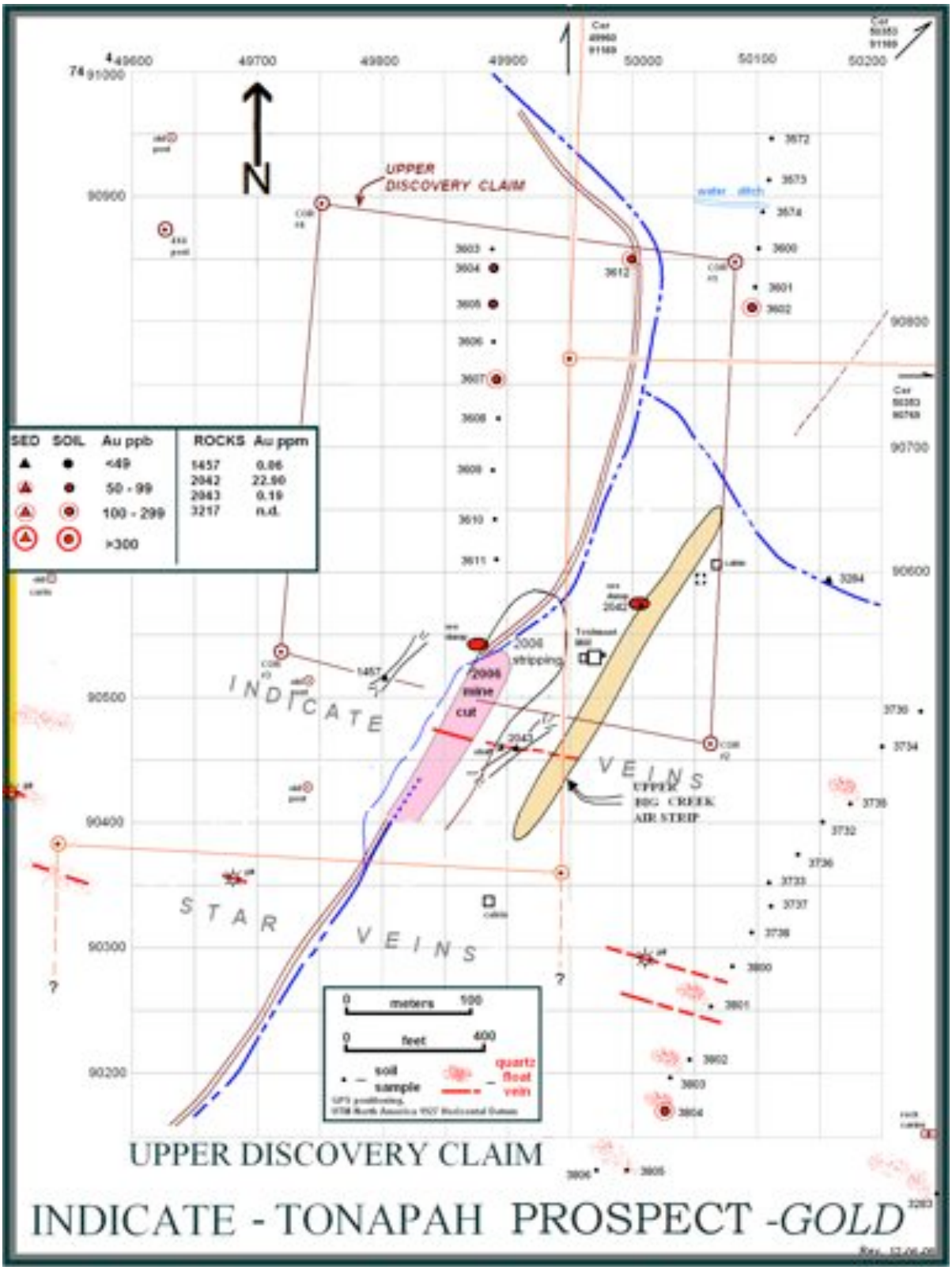


Figure 26. Indicate-Tonapah prospect map showing gold analyses.

Figure 27. The Touissant Mill ruins and the prospect area of the Indicate-Tonapah veins.

Early-century trenching/mining on the Indicate-Tonopah followed the vein(s) for about 350 feet across the valley bottom; beyond this the veins are very poorly exposed under slide rock. Re-sampling of trenches in 1982 by the Company lessee at the time, Chandalar Development Corp., yielded several values, including 1.7 and 6.0 opt gold in grab samples (58.22 and 205.5 ppm gold).

Geology and Structure

Much of the area shown on the Indicate-Tonapah map set is tundra covered with small open areas of scree and frost boils. At present the area is mapped as undivided schist of the upper Chandalar plate, mostly black carbonaceous schist. Several 105º-110° striking quartz vein systems are present, presumably following the same steeply dipping altered shear zones associated with the Kiska and Chiga prospects about a half mile northwest.

Geochemical Sampling and Mineralization

Recent placer mining has exposed the Indicate vein under the present creek bed, where it is about 12 feet thick. The old report of the Touissant Mill processing ore of about one-third oz Au/ton appears credible. Sample LS2042 from the ore dump in 2005 reported 22.9 ppm Au. Sample LS2043 was cut across the Indicate vein but assayed only 0.19 ppm Au. No mineralized zones were observed in the vein exposures, although it was not possible to determine what had been removed by the early-day lode mining.

Of particular interest is a group of low to moderate level gold and arsenic anomalies in soil samples about 750 feet to the north. No quartz veins are known in this area, although quartz chips are common in frost boils cutting through the tundra. It is presumed this location is an extension of the Chiga and Shamrock prospects to the northwest and, similar to the Chiga, there are threshold level antimony anomalies on the order of 9 to 13 ppm in soil samples that also reported gold.

The prospect area shown on the map includes the Star prospect and associated trenches that have explored an 8- to 10-foot vein in the early 1900s. Trenches on the Star vein(s) were reopened in 1981; channel and grab samples assayed trace to 0.74 oz Au/ton. In 2006 soil sample LS3804, just south of the vein prospects, was anomalous in gold.

Recommendations
The area of the Indicate-Tonapah prospect is in dispute by overlapping unpatented mining claims. Pending resolution of the ownership, additional work is recommended.

Historical and present data suggest the principal vein of the Indicate-Tonapah contains spotty or discontinuous mineralization that is unlikely to be economic. However, several veins are present and at least four veins are present at the Star prospect. Additional soil sample lines and several magnetometer lines should be done to better define a potential target. Attention should be given to gold values possibly extending into the schist wall rock between the vein sets. Particular emphasis should be given to the northwest-trending zone underlying samples LS3602 to LS3607 and LS3612 in the north of the map area; a probable extension of the Chiga prospect. Additional soil sampling followed by trenching is recommended

Kiska Prospect Area, including the Chiga Prospect

History and Location
Several old prospect trenches are found in the Kiska prospect area. A 1945 Company report mentions a stibnite-quartz showing referred to as the Little Kiska on a hillside between the Mikado and the Star claim groups, but no specific location is given. Some work is also reported on the Star No. 3 claim, which is said to be located on an east-west striking quartz vein about 5 feet thick. Analysis of a 3-foot chip sample from this vein returned 0.24 oz Au/ton. Several unreported old trenches occur near the east end of the prospect area. No old workings fitting the description of the Little Kiska have yet been found.

In 2006 it was found that gold could be readily panned from soil along a projected strike of a buried quartz structure on the Kiska. Consequently, a soil grid was done and RC drilling followed in late summer.

The nearby Chiga prospect was found in 2006. There are no past reports of prospecting at the Chiga and no old workings were found there. In 2006 the area was briefly evaluated and soil sampled. The west-northwest subdued topography suggests that the Chiga is associated with another 100°-105° covered shear zone lies mid-way between the Summit and the Kiska shear zones.

Both prospects occur on relatively flat to gently sloping ground at about 5,000 foot elevation and are readily accessed off the mine road to Mikado and the road to the Summit Mine.

Geology and Structure
The Kiska and Chiga prospects are hosted in gray to black carbonaceous phyllite similar to the host rock of the Summit veins that occur 1,000 feet north of the Chiga area. As at the Summit, the carbonaceous phyllite-schist unit (Dup) is overlain by a lighter gray, more resistant and massive metaturbidite (Dut) schist that forms a low ridge north of the Kiska prospect. There is no outcrop of the carbonaceous phyllite to schist, but fragments of bedrock occur in frost boils and scree on steeper slopes.

Both prospects are apparently controlled by underlying shear zones with associated auriferous veins or lenses striking about 100°-105° that can be identified by topographic

depressions or breaks in slope. Steep 010°-020° strike-slip faults have offset the shear zones.

Geochemical Sampling and Mineralization

No outcrop is available at the Kiska; the early trenches have all sloughed as well. However, vein quartz and quartz breccia float, some scorodite-stained, are widespread, as shown on the map (Figure 28). On the basis of float distribution and soil sample results it is suspected that there are at least two veins present. Throughout this area fine gold could be panned from any of the frost boils sampled. A few coarser colors were recovered from frost boils near the northwest-trending fault(?) and/or vein system such as at sample sites LS3053, -54, -55, and -79.

The results of soil sampling indicated a strong gold anomaly following an inferred shear zone striking about 100º. Associated with this structure is locally abundant vein quartz. The gold anomaly was indicated on five soil sample lines along a strike length of about 1,700 feet. Assays of the fine fraction (-80 mesh) of soil anomalies along the linear structure reported 0.4 to more than 2 ppm gold. Additionally, arsenic is closely associated with the gold values and shows a somewhat wider area of geochemical enrichment. The arsenic halo is typical of chemical or hydrologic weathering of more widespread mineralized source rock rather than solely a mechanical weathering and residual enrichment of particulate gold from isolated veins or quartz lenses.

A gold + arsenic anomaly of this size and with virtually no previous documented exploration, the Kiska was considered an excellent target for drill investigation. Consequently, a series of four RC holes were initiated on August 9. Because several of the holes failed to reach their target, a total of 7 holes were ultimately drilled. Drilling results indicated that the mineralization is discontinuous. There are no continuous quartz veins present and no significant gold intercepts greater than 2 ppm Au were found in the drilling effort, and those values were over only short intervals. Drill log assay sections are included in Appendix F. Ultimately a trench (see diagram, Figure 29) was excavated to overlie drill hole Kiska 15. The trench confirmed the poddy, lenticular, and veinlet character of the mineralization as seen in the following photographs, Figures 30a and b. At least some of the pods and lenses are highly auriferous and in one sample of weathered vein material (LS3174) assayed 422 ppm gold. Another sample, LS3055, assayed 0.378 ppm Au but a later metallic screen assay reported 71.6 ppm Au.

On the hill 350 feet north of the Kiska, lenses of black gritty dolomite were found in a 020° fault zone (sample LS3056). The lenses appear to be of hydrothermal origin. They are anomalous in arsenic, and similar dolomite float found to the east and west indicates dolomite is present in additional vertical fault zones. The relationship of hydrothermal dolomite to the prospects or to the underlying Dup unit is unknown.

The Chiga prospect is more heavily covered by colluvium and overlying talus. Extensive solifluction lobes occur on the west end. Quartz vein float was not seen in abundance as it was at the Kiska. Four short soil sample lines were done and found anomalous gold and arsenic, as well as highly anomalous antimony. Soil samples contained up to 242 ppm Sb (sample LS3194); in contrast, anomalous antimony was not found in any soil samples from the Kiska prospect.

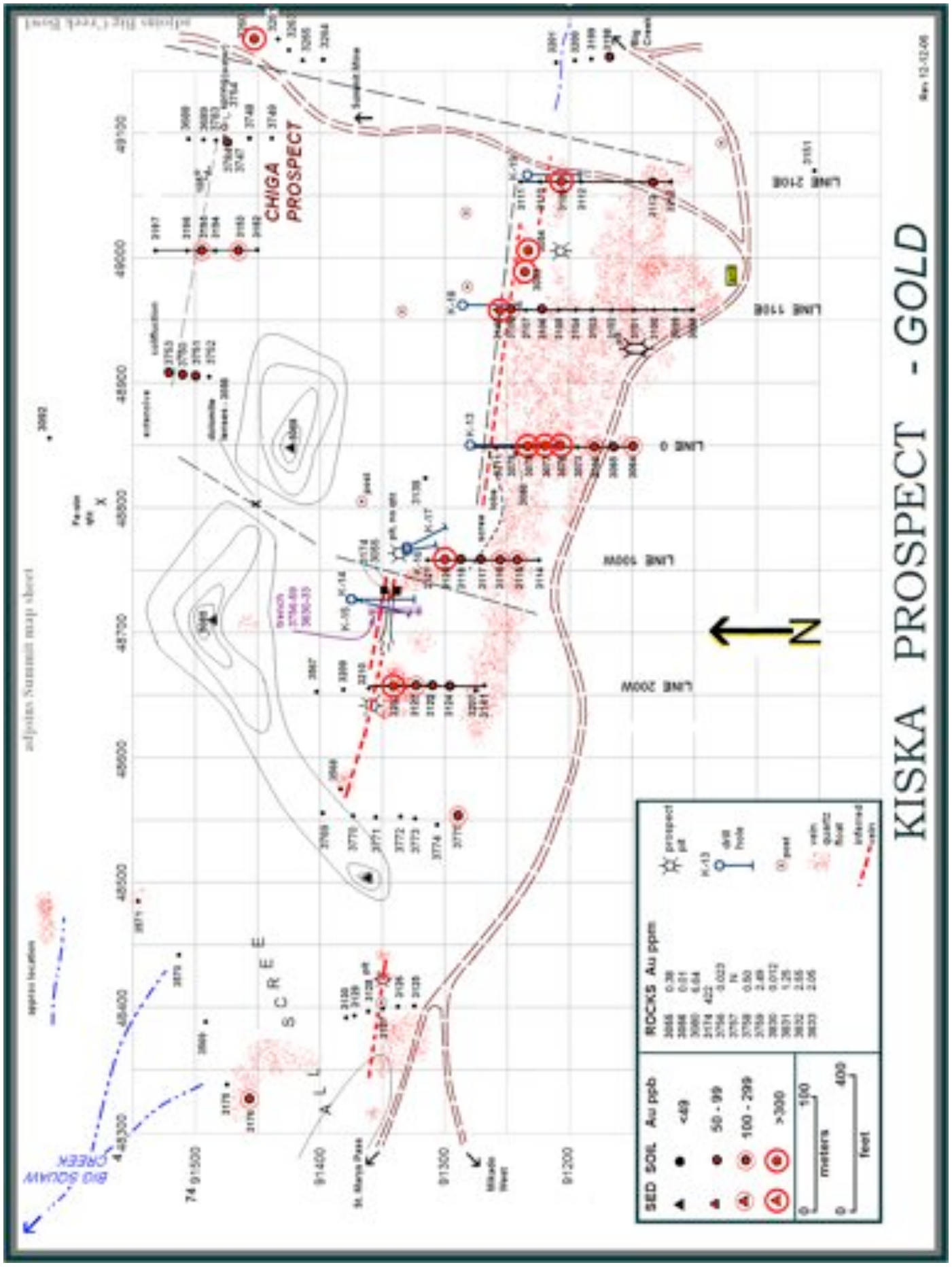


Figure 28. Kiska prospect map showing gold analyses. For distribution of arsenic and antimony, see Appendices D and E.

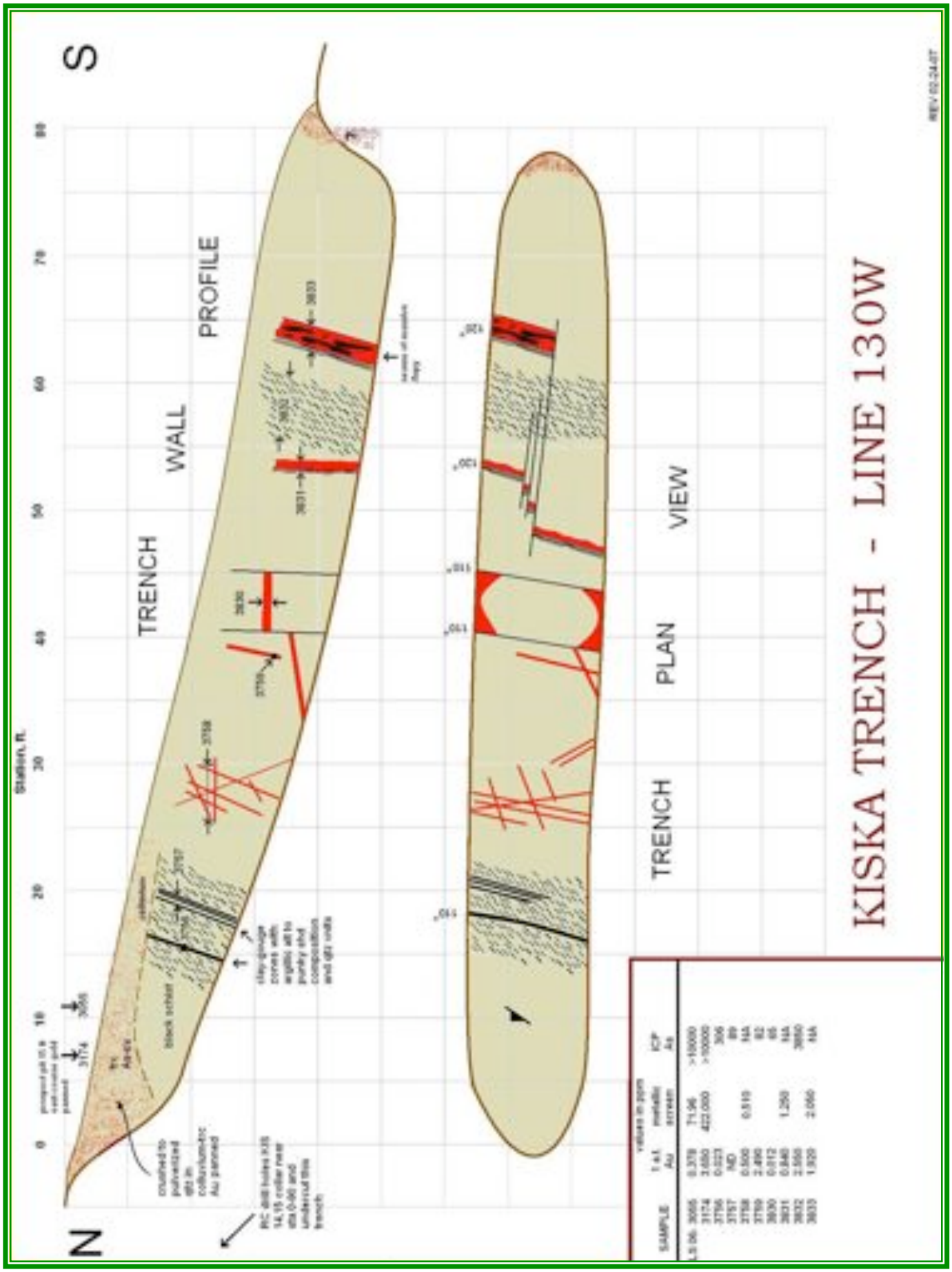


Figure 29. Kiska Trench – Line 130W

Figure 30a (left). Photograph of trench wall showing location of LS3759, a sample of a 5-inch wide pulverized quartz vein striking 110° in black carbonaceous schist; and Figure 30b (right), a photo of trench channel sample LS3833 from across a two-foot steeply north-dipping and pulverized quartz vein with seams of arsenopyrite.

Recommendations

It is concluded at this time that there likely are no persistent high-grade veins present on the Kiska vein system. Nevertheless, a series of trenches should be planned to test the possibility of a larger, lower grade zone of mineralization that would contain occurrences of high-grade gold-bearing lenses. Drilling this type of target is not advisable due to the likelihood of missing the unpredictable gold-quartz lenses.

The Chiga should also be trenched along line 449000 and the soil grid expanded, particularly to the northwest. To the east it is apparent from data at the Big Creek Bowl prospect that the Chiga extends across that map sheet, possibly continuing as far as the Indicate-Tonapah map area on Big Creek. The anomalous antimony found to be characteristic of the Chiga prospect may indicate stronger gold values at depth, such as the case at the Aurora Gulch prospect. At the Aurora, the antimony values occur above and laterally beyond the gold-arsenic values. Additional geologic study is recommended, including the relationship of the structural contact of the overlying quartzose turbidite schist with the carbonaceous phyllite-schist host gold mineralization below.

Little Squaw

History and Location

Old accounts state that the Little Squaw gold-bearing quartz lode was discovered in 1906 by Eneveloe, the Eskimo wife of Frank Yasuda, while she picked berries on the slopes above Little Squaw Creek. First explored in 1909, a small reserve of about 10,000 tons grading 1.7 oz gold/ton was estimated by the Company prior to brief mining in 1982. Records imply that probably no more than several hundred ounces of gold were produced. Underground workings include two levels, each about 350 feet long, connected by a winze, and a 76-foot raise that extends to the surface discovery outcrop. A third, caved adit is located downslope to the east; it appears to not have reached bedrock. A high-grade shoot of auriferous vein quartz containing visible wire gold was exposed at the surface and is well exposed in the100

Level. Gold values are mostly concentrated along the footwall in a 9- to12-inch zone that has a banded 'ribbon' appearance and contains disseminated native gold.

Past exploration includes four short AQ drill holes in 1982 and five trenches that traced the veins westward to where they are covered by talus. Another series of trenches downhill to the east appear to have failed to reach bedrock (see prospect maps, Figures 31 and 32). Renewed prospect evaluation was begun in 2004 and in 2006 ten reverse-circulation drill holes were undertaken to explore the known and suspected side veins.

Geology and Structure

Bedrock in the Little Squaw mine area is composed of carbonaceous, dark gray to black schist and phyllite, and apparently interbedded quartzose, gray schist to quartzite. Carbonate schist and secondary carbonate rocks, including a buff to red sideritic unit, are present. The local stratigraphy is mapped as part of the Chandalar upper thrust plate and dips gently to moderately northwest.

Carbonate alteration occurs in distinct areas or stratigraphic horizons within the schist, typically associated with a green-gray coloration. Possibly unrelated but relatively intense carbonate-siderite(?) appears to follow the fault zones seen on the 200 Level. In either case carbonate was not found associated with any of the more significant gold intercepts. Further petrographic study is pending.

In 2006 mapping was conducted west of the uppermost trenching on the Little Squaw mine area. A sill(?) of carbonate meta-greenstone lies west of the upper trench and forms a distinctive boulder talus down the west slope above Gold Creek. The greenstone is cut by the Little Squaw shear, or a closely parallel shear, striking 112º. Minor quartz veinlets apparently cut through this shear, though no evidence was found that the larger Little Squaw auriferous veins transect the greenstone body. Nevertheless the veins apparently underlie the sill(?), as they reappear west of the greenstone unit. By following a projection of the vein strike, vein quartz float was found west of the head of Gold Creek.

The Little Squaw shear zone encompasses a set of multiple fault zones individually consisting of several-feet wide zones of sheared and pulverized rock, chloritic and graphitic clayey gouge zones, limonitic clay, and pulverized quartz that occur across an inclusive north-south width of about 1,000 feet (Figure 33).

The principal shear is about 150 to 300 feet north of the Little Squaw veins, and less developed shears can be seen to both the north and the south. The Little Squaw veins lie across the south of the saddle and two veins of the Jackpot prospect occur along the north margin. A prominent talus debris fan is composed of sheared, pulverized rock on the saddle's east-facing slope. The fan incorporates rock debris, frozen clayey sediment, and ice, and exhibits a frozen plasticity; it is continuing to subside while additional material is drawn to it from the saddle area. The encroaching nose of the fan has forced Little Squaw Creek to divert around it. Concurrent with the subsiding debris fan the shallow sheared bedrock marginal to the saddle area is slumping into the recessed saddle. Open or ice-filled voids created by separation of the westerly striking veins from the hanging wall schist is evidence of continuing gravity slump. Several drill holes were lost due to failed circulation when hanging wall voids were encountered.

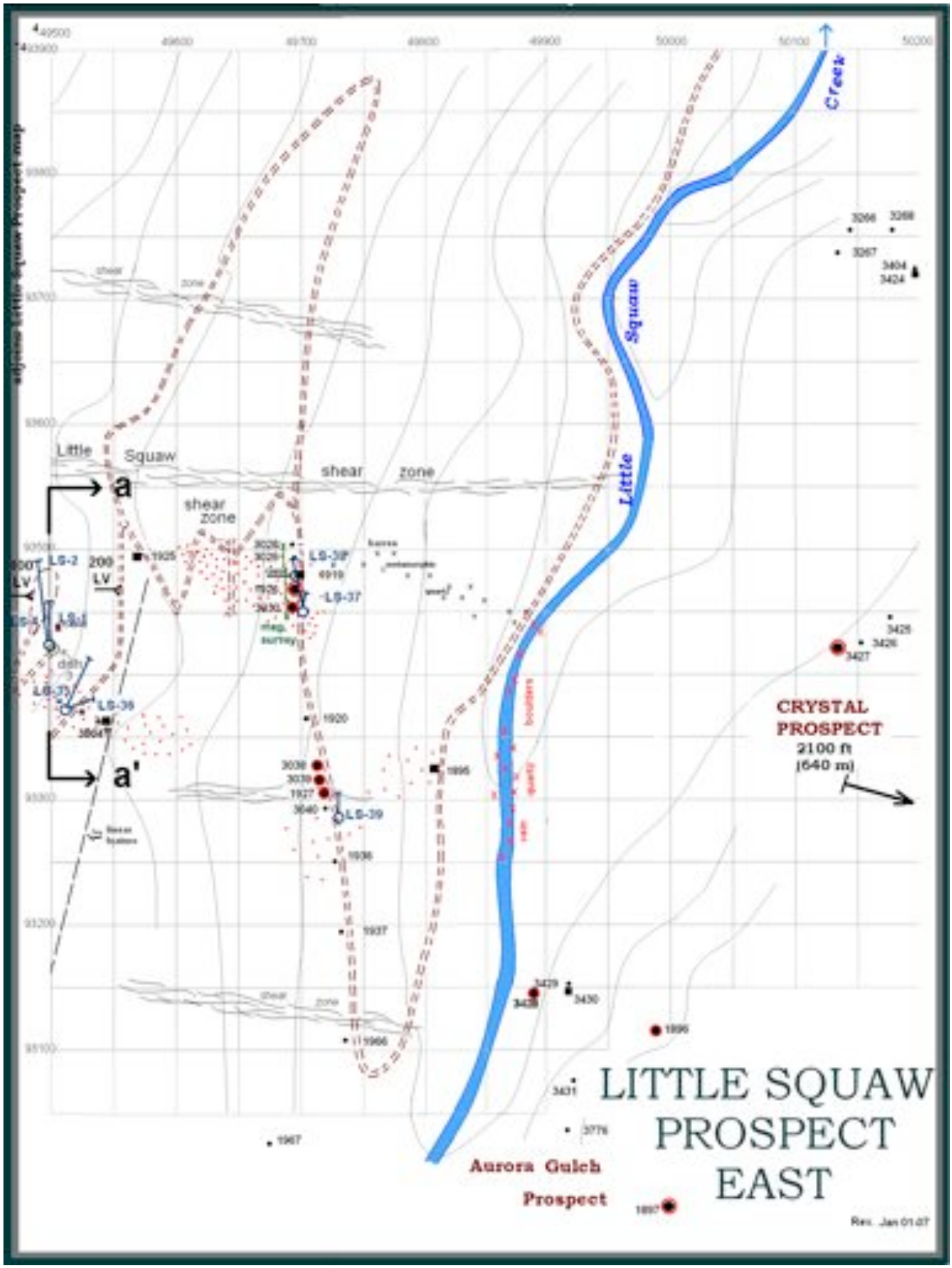


Figure 31. Little Squaw prospect, east facing slope prospect map showing gold analyses.

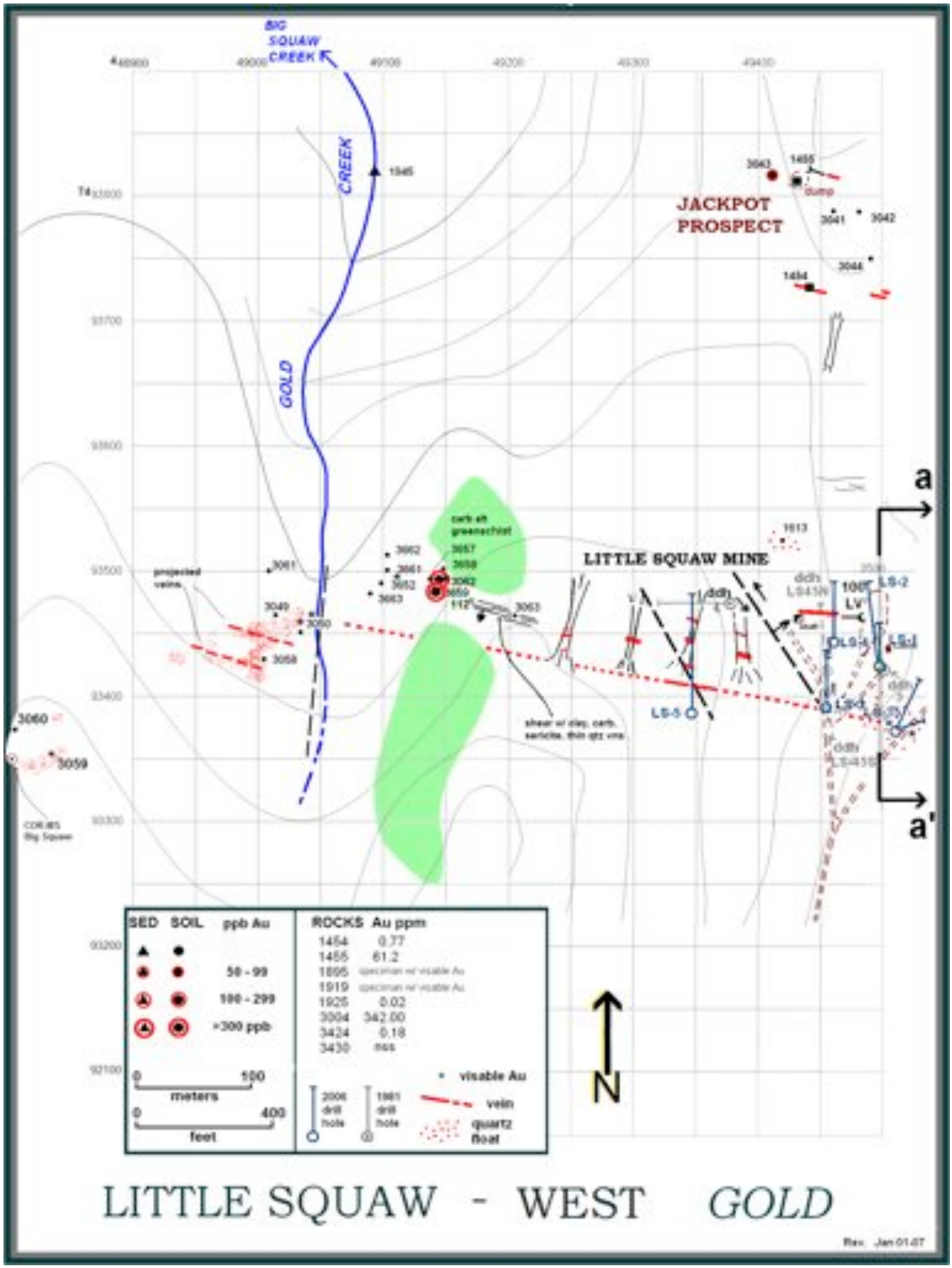


Figure 32. Little Squaw prospect, west slope prospect map showing gold analyses.

Figure 33. Looking northwest at the Little Squaw shear zone. Note the prominent saddle just north of the Little Squaw mine.

The shear structures are projected to continue across Little Squaw Creek and cut the opposite (west-facing) valley slope. These west-facing zones are totally obscured by a landslide and another active massive debris fan that has similarly diverted the creek.

Several closely spaced south-dipping veins of the Little Squaw lode are hosted in the northwest-striking faults subparallel to or splaying off of the Little Squaw shear zone. At a closer scale the fault followed by the 100 Level vein strikes about 100°-110° and was previously mapped with a normal down movement on the hanging wall. North of the fault is gray muscovite-chlorite schist and phyllite that forms the footwall to the vein, and to the south of the fault is a light gray quartzose muscovite schist that forms the hanging wall.

Sampling and Mineralization

Quartz veins and veinlets at the Little Squaw prospect are coherent mesothermal veins with sharply defined contacts that break clean from the wall rock, generally with little or no gouge material; see Figure 34. Wall rock alteration is minimal. There is evidence of several stages of silica deposition both with and without gold values. For instance, several 1- to 4-inch quartz veins and veinlets striking subparallel to the principal vein are exposed in the crosscut drift on the 200 Level, but sample assays reported only trace gold (samples LS1650-1655). Within the 100 Level vein gold is found in the thinner banded “ribbon” quartz footwall zone on the right in the photo; samples LS1620 contained 3,086 ppm Au while adjoining LS1621 and -22 assayed less than 0.10 ppm.

Figure 34. Little Squaw white quartz vein exposed in the 100 Level of the Little Squaw mine. The banded quartz-gold footwall zone (LS1620 and -21) commonly contains 50 or more ppm gold. The view is along strike looking west. Note the open fracture on the hanging wall (between LS1622 and the wire net), likely due to landslide tension resulting from mass downslope transport of sheared rock northeast of the mine site (to the right of photo).

Quartz vein mineralization is localized along the steeply south-dipping Little Squaw fault. Where observed on the 100 Level mineralization is confined to the footwall zone of a composite vein. The 9-13 inch banded ribbon quartz zone contains disseminated and thin seams of arsenopyrite, scorodite, pyrite and less common accessory galena and rare sphalerite. Likely this mineralized band is a late stage event within the vein that developed due to recurrent movement on the Little Squaw fault. Slickenside is common on many of the laminar planes that form the banded composition. Small clots of wire gold occur in vugs and on band surfaces and are very loosely attached to the rock. It was repeatedly observed by the author that gold would fall free from vein specimens when cut or handled.

At present, the Little Squaw lode has been explored underground on the 100 Level for about 250 feet along a vein strike of 100° to 110° with an approximate 75º south dip. A thin arsenopyrite-quartz vein not exceeding about 8-inch width was followed and explored on the 200 Level, Figures 35a and b. On the surface, veins can be traced westerly about 575 feet beyond the southeasterly offset encountered underground on the 100 Level.

Figure 35a (left): Example of an 8-foot wide siderite-carbonate altered NW fault zone, with a 58° northerly(?) dip showing left lateral movement as seen on the 200 Level cross-cut; within this fault zone are north-dipping NE slickenside and shallow north-dipping faults with cm-scale, right-lateral displacement. Figure 35b (right): normal dip-slip movement on a NW-striking fault dipping 45° NE.

Drill data from 1982 indicate that several auriferous veins are present at the Little Squaw mine. Locations of the 1982 drill holes, LS45N, LS45S, and LS3, are shown in gray on the prospect maps (Figures 31 and 32). Only a few assays were found for a fourth and final drill hole LS4, and consequently this hole is not discussed. Drilling in 1982 was done with only AQ size core and core recovery is said to have been poor. Open voids were encountered at several intervals; hole LS45S was lost at 294 feet due to loss of circulation in a void. A 70-foot mineralized zone encountered by hole LS3 between interval depths 15 and 85 feet was reported to average 6.12 ppm Au. Projection to surface of the mineralized interval would lie south of the 100 Level vein. Additionally, from an underground drill station on the 200 Level, drill hole LS45N intersected a vein reporting 7.54 ppm Au within assay interval 79-89 feet. From this same hole at 280-290 feet, a high-grade vein intercept of 15.77 ppm Au is reported. Drill hole LS45S intercepted low-grade mineralization assaying an average of 3.43 ppm Au between 20 and 50 feet deep. Some sample splits from the three 1982 holes were re-assayed in 2004 and results verified the two high grade assay intervals on holes LS45N and LS3. Re-assay of several 10-foot intervals within the low-grade zone on hole LS45S reported only trace gold values.

Surface mapping in 2005 further suggests two, possibly three or more veins to be present at the Little Squaw mine. A mineralized vein, likely offset from the southwest is suspected to underlie the slope east-northeast of the 200 Level. This may be the same vein seen on the 100 Level. Vein quartz float, believed to be of this vein, was found concentrated in the vicinity of the lower caved adit and soil sample LS1926 was anomalous in gold. Similarly, vein quartz southeast of drill site LS3 may be the surface expression of values reported in that drill hole. A vein, parallel to the 100 Level vein, can be projected downhill from this location to continue eastward to sample sites LS3004 and 1895, where quartz vein cobbles, each with a dozen grains of free gold, were found among vein float.

The Little Squaw vein system was traced west of the uppermost historic prospect trenches to the vicinity of Gold Creek. The mapped projection shown on the attached plan-view drawings is based on widespread limonitic quartz chips in colluvium and float of massive white vein quartz up to three feet diameter. Soil samples LS3062 and 3659 assayed 3.67

and 1.36 ppm Au, respectively. Several pieces of float vein quartz near this location contained visible gold, however, hand trenches to 5-foot depth failed to reach bedrock. Soil samples in the immediate area contained unexplained anomalous concentrations of antimony.

West of Gold Creek numerous pieces of weathered vein exhibit boxwork, possibly after sulfide. Minor scorodite-staining is present in some pieces. Vein float could be traced uphill west from Gold Creek for about 300 feet, where it became covered by boulder scree. No evidence of previous sampling or prospecting was found on the west side of Gold Creek. A group of four soil samples was taken where possible among boulder scree and is shown on the map, Figure 32. No anomalous values were detected.

Examination of aerial imagery tentatively extends the Little Squaw shear zones along a 110° strike eastward from the Little Squaw mine to include the Crystal prospect, about a mile east, on the opposite side of the Little Squaw Creek valley. Vein exposures at the Crystal prospect closely resemble the composite100 Level vein (see Crystal Prospect chapter).

2006 Reverse-Circulation Drilling

Ten reverse-circulation drill holes were drilled in 2006 targeted on the Little Squaw vein system, see Table 4 and drill-assay logs are available in Appendix F. Drilling was done using feet as the unit of measure and specific drill intervals are referred to in feet. A summary of significant features and intercepts follows:

Table 4. Summary of 2006 Little Squaw prospect reverse-circulation drill results

DRILL HOLE	TARGET	TD	DEPTH feet	REMARKS	PPM Au
LS-1	Undercut east ext of 100 Lv vein and replicate 1982 hole LS3, which intersected 70 ft of 6.17 ppm Au	168		schist	
			30-35	schist	0.59
			165-168	Mechanical failure at 168 ft depth, hole abandoned	0.60
LS-2	Second attempt for above target	310	35-40	schist	0.84
			175-190	Vein or veins, carb. alt green - gray schist	NSA
			190	Ice void	
			185-205	Schist and vein mix	0.14
			205-235	Schist and minor quartz	
			205-225	Included in above	4.21
			235-255	schist	0.17
LS-3	Two-hole fence to verify veins reported in 1982 hole LS45S and 45N, including 100 Lv vein	200	115-120	Minor vein	NSA
			185-190	Minor vein	NSA
			135-160	Primary vein	NSA
LS-4	Ditto above	210	35-40	Minor vein	NSA
			55-60	Minor vein	0.64
			85-100	Carb alt schist	NSA
			165-185	Mixed vein & schist zone	0.34
			190-195	Ice/mud-poor recovery	
LS-5	Test west extension of 100 Lv vein and inferred veins to north and south	380	87-105	Vein	NSA
			147-170	Veins, some schist	
			155-160	Vein within above	3.38
			160-170	Carb alt gray-green schist	NSA
			190-195	Minor vein	NSA
			225-230	Minor vein	NSA

DRILL HOLE	TARGET	TD	DEPTH feet	REMARKS	PPM Au
			250-260 285-290 355-375	Carb alt gray-green schist Minor vein Carb alt gray-green schist	NSA NSA NSA
LS-35	Test inferred south vein as indicated by abundant surface quartz, some with VG	210	15-20 205-210	Minor vein Hole ends in vein	NSA NSA
LS-36	Attempt to undercut run of auriferous vein quartz near sample LS3004	130	25-35 70-100	Mix schist and minor veins Mix schist and minor veins	NA
LS-37	Test the inferred presence of a vein underlying the failed adit area, inferred ext'n of 100 Lv vein	60	50-55	Minor vein Hole encountered water-filled zone in vicinity of primary target, abandoned	NA
LS-38	Second effort of above	210	170-175 200-205	Vein Minor vein	NA
LS-39	Test extension of inferred south vein as indicated by float quartz and soil gold values	70	70	Encountered water zone, drill mechanical failure, hole abandoned	NA
NSA – no significant assay in drill interval				**NA – no assay performed**	**units in feet**

Examination and interpretation of the drill results indicate the fault-dismembered nature of the Little Squaw veins. Furthermore, with the exception of drill intervals 205-225 feet on hole LS-2, the assay gold values are low throughout the entire drill program even though quartz veins were intersected in most holes. Reconstruction along fault planes suggests most vein quartz intercepts can be correlated to auriferous veins seen at the surface, in underground workings, or from the 1982 drill holes. The following summarized cross-section (Figure 36) depicts a *PRELIMINARY* interpretation of the vein system. It is important to note that this was a scout drill program and lacked survey control of hole location, elevation, and orientation, and lacked an accurate topographic base map; all combined to hamper the accuracy of the interpretation. Also, of the ten 2006 drill holes, three were unsuccessfully completed due to mechanical problems or ground conditions so did not reach their intended target, while others were limited to 210 feet due to the unavailability of drill rod. Hole 35, for instance, reached the vein but could not cut the full width.

It is uncertain if the lack of gold values in the 2006 drill holes reflects actual low gold content in the veins intercepted or the loss of gold grains in the air reverse return system of the drill. Most notably the 1982 hole LS3 reported 6.17 ppm Au over 70 feet, yet the 2006 holes LS-1 and -2, which were collared from near the same site and with similar orientation, reported gold values of less than a ppm Au in a single 5-foot interval from the corresponding interval on each hole. The 1982 hole LS45S also reported a wide zone averaging 3.43 ppm Au that was not found in LS-35.

It is of also of note that the100 Level vein contains coarse-grained crystalline and wire gold that may be difficult to recover in the air return system. Reconstruction of fault movement shows that an auriferous intercept is made on holes LS-4, LS-2, and LS45N. Hole LS-4 reported only a single 5 foot interval of 0.34 ppm Au. It is believed that the 100 Level vein is the vein that was cut by drill hole LS-2 at 205 feet and reported 4.2 ppm Au over 20 feet. Similarly the 100 Level vein appears to be cut by the 1982 drill hole LS45N but the old assay

was considerably higher and reported 15.77 ppm Au (22.6 ppm Au in the 2004 re-check of archive pulp).

An unexposed, except in float, second vein lying south of the 100 Level vein is seen in the 2006 drill hole LS-5 at interval 147 to 170 feet. The gold mineralization encountered in the 1982 drill hole LS3 would also correspond to this south vein. Drill holes LS-35, -36, and -39 were targeted to intercept the south vein but were apparently unsuccessful, possibly due to displacements on the same northwesterly faults that cut the 100 Level vein.

Jackpot Prospect

Prospect trenches and a short caved adit on the north edge of the saddle feature are believed to be the workings referred to as the Jackpot Prospect in archived Company reports. Mine records indicate that a 2-foot vein carried free gold and that two channel samples contained 2.74 and 11.32 ppm Au.

In 2004 chips of gossaniferous quartz vein and schist breccia from a prospect pit contained 0.77 ppm gold (sample LS1454). Approximately 300 feet to the northwest a caved adit follows a parallel(?) vein composed of both massive white quartz and a quartz-oxide banded zone striking E-W with a steep south dip. No outcrop exposure remains and only loose rubble could be examined. Rock derived from the banded zone resembles the banded zone in the Little Squaw mine; a random chip sample specifically of the banded vein material on the dump contained 61.2 ppm (sample LS1455).

Recommendations

It is apparent from the combined 1982 and 2006 drill data that the vein on the 100 Level may be mineralized over a larger strike length and depth than previously known. The vein is highly faulted and will be difficult to follow. Nevertheless it likely extends in some form to the old caved adit near sample LS1919. Similarly a south vein is present and contains at least intermittent mineralization.

Future work should address the apparent lack of gold in 2006 drill holes. A core drill of H-core class could be attempted but must be prepared to encounter open voids. Sludge and core washing residue from any future core holes should be regularly panned.

In 2006 drill holes LS-1 and -2, which were intended to replicate the intercepts on 1982 hole LS3, there were some intercepts with minor gold values (less than 1.0 ppm) where no quartz was logged from the drill cuttings. For instance,

LS-1, intercept 30-35 feet, 0.56 ppm
LS-1, intercept 165-168 feet, 0.6 ppm
LS-2, intercept 35-40 feet, 0.84 ppm
LS-2, intercept 235-255 feet, 0.17 ppm

All archive splits from LS3 for interval 10-100 feet should be re-examined to determine if the 1982 reported values are associated with quartz veining or represent some other style of mineralization.

All workings and drill holes should be surveyed on a topographic base map. Mapping faults and displacements should be improved. Age relationships of faulting, alteration, and vein formation should be resolved.

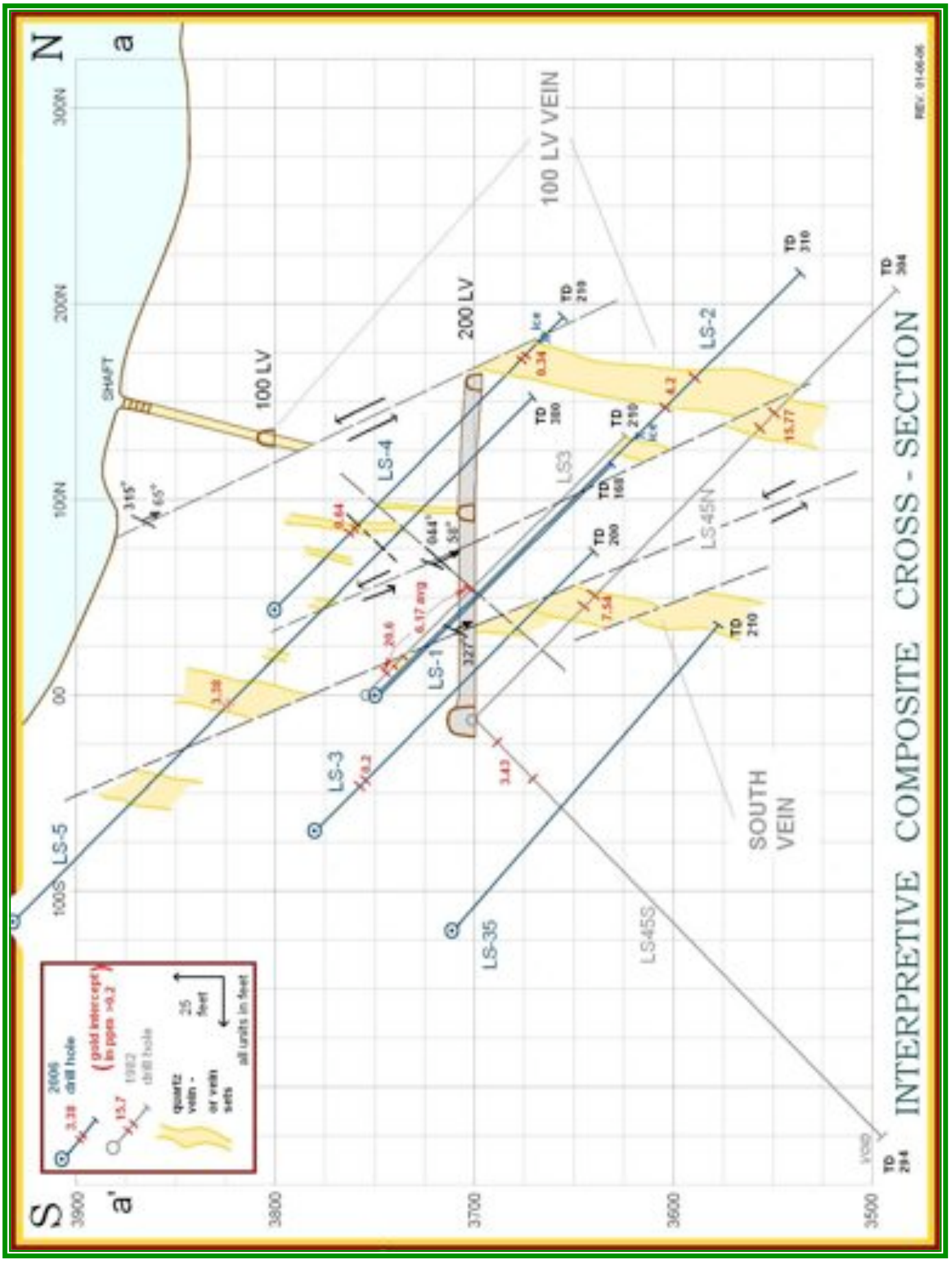


Figure 36. PRELIMINARY interpretative cross-section of Little Squaw drill

West of the meta-greenstone the presence of high-grade gold in quartz and anomalous soil values to 3.67 ppm Au indicate gold quartz veining in the area. Follow-up is warranted. Gold mineralization is likely capped by the greenstone sill. The presence of anomalous antimony may indicate some form of vertical zoning below the contact. During dry weather, excavator trenching may be possible on the moderately steep hill slope.

Mello Bench Prospect

History and Location

Beginning about 1915 and continuing until the 1930s, Manual Mello and his sons mined a rich but deep gold placer in the frozen gravels on what is now known as Mello Bench on Little Squaw Creek. The Mello Bench has reportedly produced about 30,000 oz of placer gold from drift mines. Average grade of the gravels mined was reported to be 0.96 oz Au/yd^3 although some clean-ups reportedly were as rich as 4.6 oz Au/yd^3. Additional unreported production has come from placer workings extending downstream of Mello Bench.

In 1997 Daglow Exploration, Inc. acquired a lease from the Company and drilled a series of reverse circulation holes to test the Little Squaw Creek placer bench that was thawed and not previously mined by the early year prospectors. In 2005 and continuing in 2006 an investigation has been made of the potential source of the placer gold; see the prospect map, Figure 37.

Geology and Structure

At the creek level a single bedrock rubble exposure is black schist, likely a part of the Chandalar lower thrust plate. Greenstone, some variably carbonate-, chlorite-, sericite- and silicic-altered, is found about 1,600 feet to the northwest in the prospect map area (samples LS1856-58) in contact with the schist. In hand samples (Figure 38) the chlorite appears to replace biotite while the carbonate is after plagioclase. Sericite and clots of Fe-ox are found in the matrix of what had been a meta-diorite(?).

A grassy covered slope leading to the ridge northwest of Mello Bench is underlain by deep colluvium and an inferred shear zone structure. Based largely on topographic depressions oriented about 110°-120° it is inferred that a set of shear zone structures may exist under the combined glacial, fluvial, and colluvial sediments immediately above the Mello Bench area. Shear structures also cut the north side of Crystal Peak to the southeast and are likely responsible for the large landslide features seen at the head of Pioneer Gulch. As seen on high-altitude imagery the topographic linear features at Mello Bench continue east as a presumed extension of the northwest shear zones at the Northern Lights area.

A relatively thin veneer of glacial till mantles the surrounding area to an elevation about 250 feet higher than the bench and to even higher elevations to the north. Composition of till clasts is foreign to the rock units in the Little Squaw valley. A small kettle-like feature (see attached map) was found along Pioneer Gulch on the opposite side of the valley but no glacial features were identified that indicate ice-movement. Although ice gouging of the upper valley and a resultant terminal moraine at Mello Bench can not be ruled out, the 100-foot thick unconsolidated sediment section shows only alternating stratified fluvial and glacial (glaciofluvial) sediments rather than a chaotic section as would be expected in a terminal moraine.

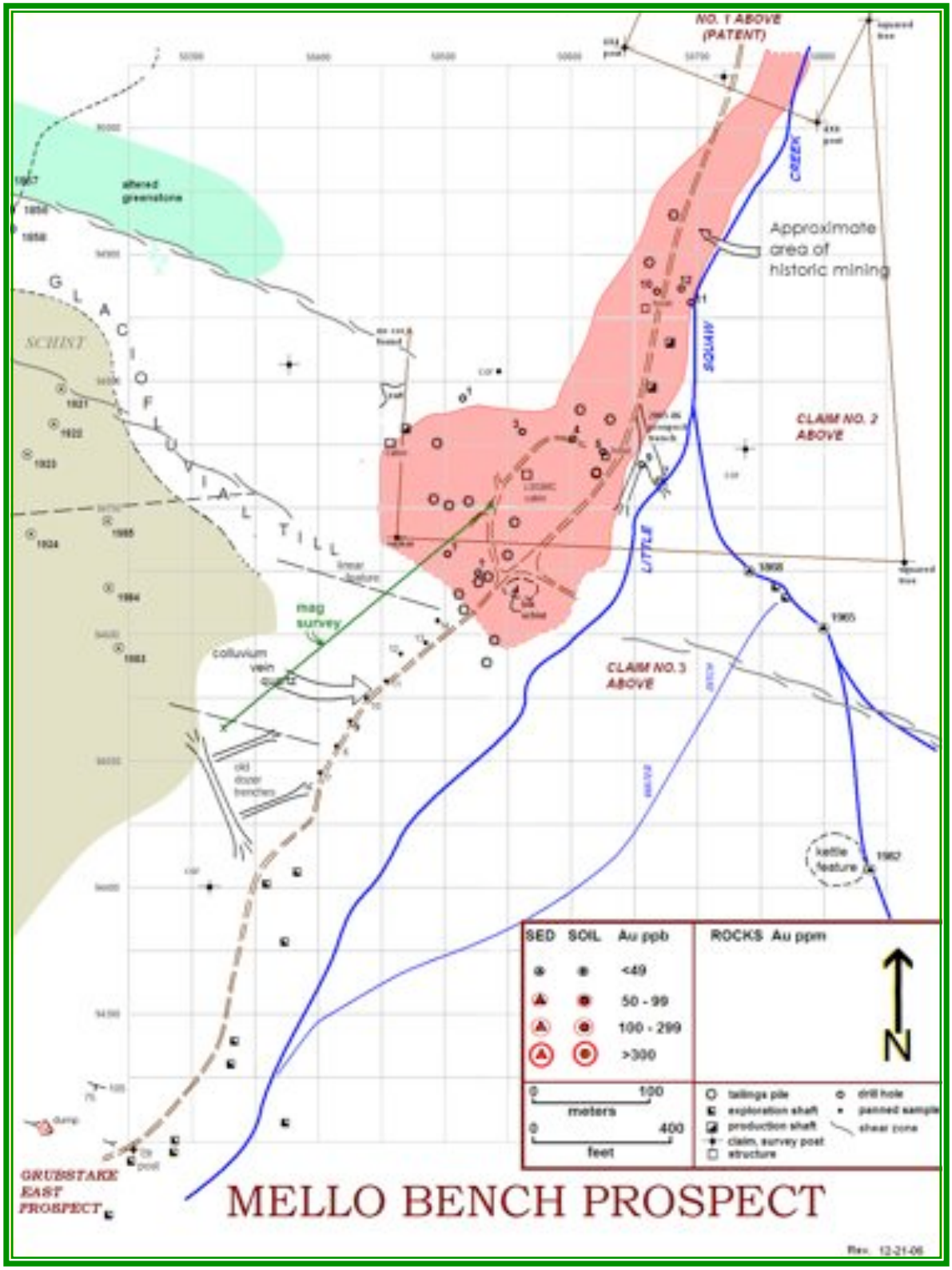


Figure 37. Mello Bench prospect map.

Figure 38. Altered metadiorite(?) with carbonate, sericite, chlorite, Fe-ox, and variable silicification. Carbonate appears to replace plagioclase (sample LS1857).

Ice is tentatively interpreted to have in-filled the lower Little Squaw valley from the build-up of a massive ice sheet that overlaid the lowland between the North Fork and Middle Forks of the Chandalar River, including Squaw Lake. The ice entrained glacial drift that ultimately was left as a lag after the temperatures warmed. Exploratory shafts and the 1997 placer drilling indicate this process was repeated three or more times leaving fluvial and colluvial sediments in between the till layers.

Magnetic Survey

A single magnetic survey line indicated highly erratic readings, or a substantial anomaly near the northeast beginning of the line (see prospect map, Figure 37). This was followed by a 600-foot wide zone of relatively low readings that gradually increased to the southwest. Interpretation suggests that the erratic readings are due to the proximity of the covered shear zone and that the broad zone of low readings to the southwest represents the variably altered metasediment unit cut by the shear zone.

Sampling and Mineralization

Trenching in 2006 reconfirmed the auriferous fluvial section at drill hole 7 (Figures 39 and 40). Otherwise there has been no other recent subsurface exploration. Soil samples taken from the west slopes above Mello Bench encountered thick, frozen colluvium and no gold or arsenic anomalies. A series of panned colluvium samples shown on the prospect area map were collected and grain counts are given in Table 5. Note the increase in gold grains found at stations 10 and higher.

Figure 39. View of Mello Bench as seen from the Northern Lights prospect and looking west across Little Squaw Creek; numbered points are sample sites, black dots are placer exploration drill holes on Line 49 shown in following cross section

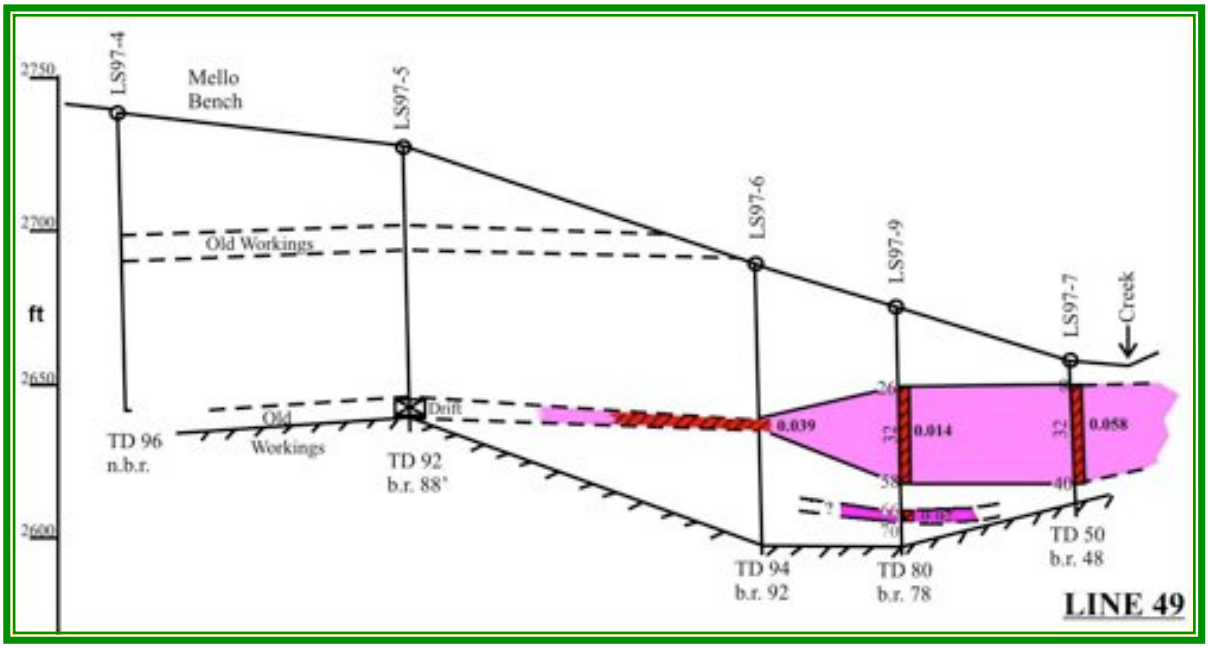


Figure 40. Cross-section of Line 49 drill holes in 1997 on Mello Bench, showing three fluvial auriferous horizons that have been mined where frozen; intercepts report values in oz Au/yd^3.

Table 5. Results of Panned Colluvium Samples

Sample Point	Fly Specks	Specks	Colors	Easting	North
6	4 (very tiny)			50386	94452
7	1			50402	94491
8	8 (very tiny)			50417	94512
9	2			50425	94529
10	>50	6		50436	94550
11	12			50453	94565
12	10		1 (1.5mm)	50465	94581
13	19		4 (up to 0.5mm)	50483	94594
14	6	1	1 (2.5mm)	50496	94618

NOTE: Samples were collected from the top several inches of the cut-bank side of the road that had thawed by late May. Sample volume was one filled 10x17-inch poly bag.

Additionally it is noted that:

- Despite extensive evidence of early-year exploration, there is no significant production of placer gold on Little Squaw Creek upstream of Mello Bench. Up-stream from the Mello Bench area only uneconomic concentrations of placer gold are found.
- Placer gold production begins at Mello Bench and extends more or less continuously downstream for at least a mile.
- Panning the colluvium immediately above Mello Bench consistently shows placer gold.
- The occurrence of placer gold, as well as angular fragments of vein quartz in colluvium, extends up to the vicinity of several northwest linears visible in the field as depressions containing small stream channels.
- Early prospectors, apparently aware of the gold in colluvium, attempted dozer exploration but apparently found little of interest. Mapping in 2006 suggests the old dozer trenching was in the hanging wall of the linear system.
- Early reports speak of the richest Little Squaw Creek placer mineralization as occurring between Claims 2 & 3 Above (see Figure 37) and that values diminished in either direction from this area. The line between Claims 2 & 3 coincides with the upper limit of workings on Mello Bench.
- There is an unverified report of gold in quartz veins seen in the floor of the Mello Bench drift mine.
- The character of the placer gold is both water-worn and abraded, and semi-angular to wire gold. Crystalline angular gold is predominant.
- There are at least three fluvial placer horizons identified from drill holes and past drift mining

Recommendations

While glacial and/or fluvial sources for the gold can not be ruled out, the evidence is supportive of a local bedrock source in the vicinity of the observed northwest-trending linear structures or a combination of both.

An expanded magnetic survey is proposed and the survey should extend north to the projected greenstone contact. Trenching should follow to explore specific targets that may be located below the more shallow sediments toward the southwest end of the bench.

Northern Lights Prospect

History and Location

The Northern Lights prospect is located on the broad tundra-covered gentle slope between Little Squaw Creek and Nugget Creek. In an early Company report a mining claim by the name 'Northern Lights' is vaguely referred to in this area. No additional information on the claim was given at the time and no evidence of prospecting has been found. Several gold anomalies were found in 2005; work in 2006 was limited to reconnaissance and soil sampling.

Geology and Structure

Metamorphic rocks within the map area are believed to be the Lower Plate and include minor meta-mafic and -felsite components. To the east of the prospect map area (Figure 41) a massive greenstone sill occurs as boulder rubble and forms a prominent hillslope rising to the southwest. It appears there is in a low-angle thrust fault contact between the

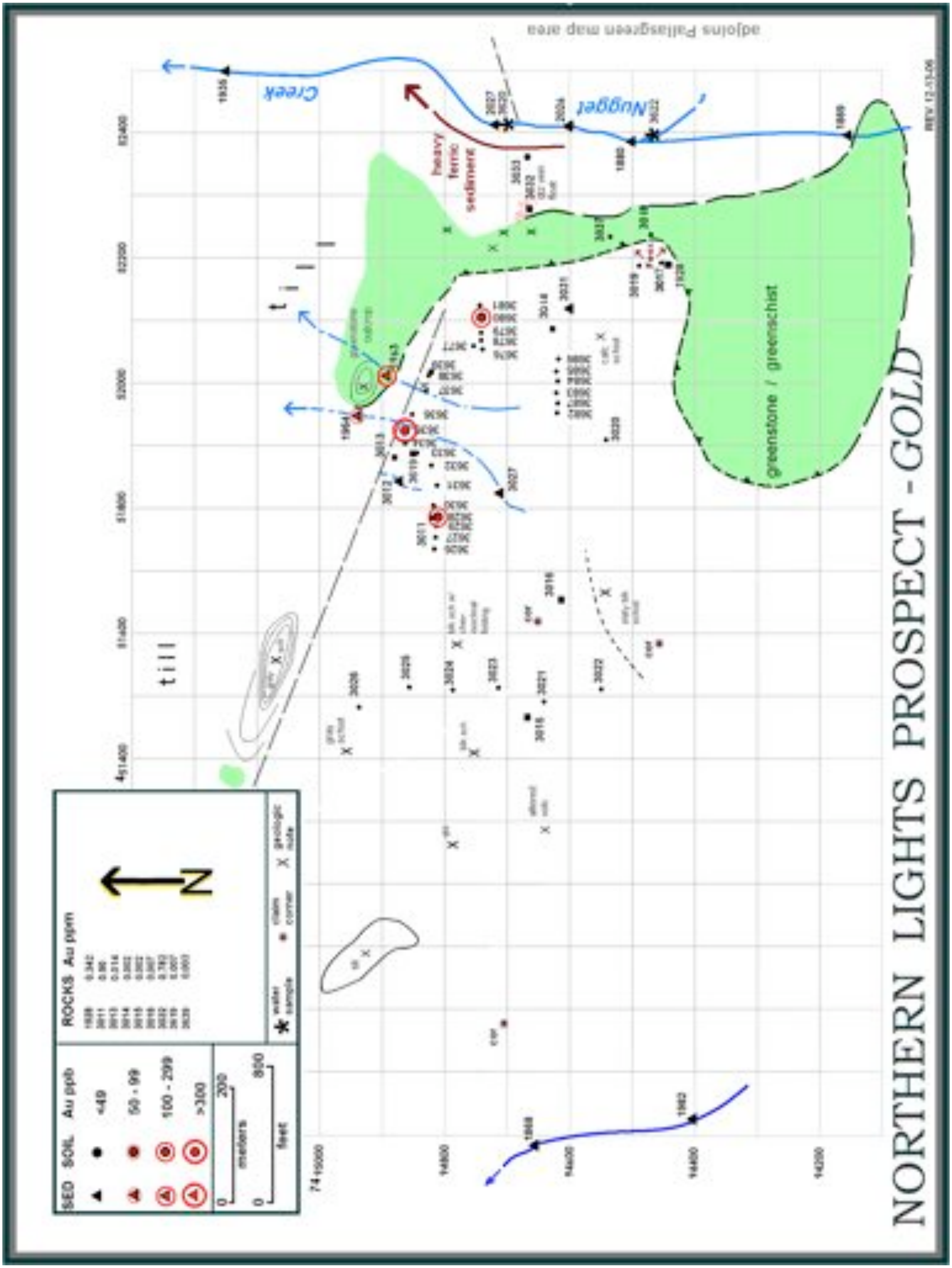


Figure 41. Northern Lights prospect map showing gold analyses. For arsenic and antimony distributions, see Appendices D and E.

greenstone unit with the underlying Lower Plate black schist unit and meta-volcanic rocks. At the contact zone either a basal zone of the greenstone or an upper-level meta-mafic volcanic in the Lower Plate sequence is variably altered (sericite-ferroan dolomite-Fe-oxide ± silica) mafic rock and locally brecciated.

The Northern Lights area is underlain by at least two structural linear zones that strike about 110°. One of these could be approximately located on the map. Another is suspected within several hundred yards to the south. These lineaments continue west to underlie the till-covered area near the Mello Bench camp site on Little Squaw Creek. Note, scale of the attached map is about 1:8,000 as opposed to the 1:3,937 scale used elsewhere such as for the Pallasgreen map, which adjoins the area from the east.

The prospect area is underlain by continuous, ice-rich permafrost that, due to the thick tundra insulating cover, does not allow thawing of mineral soil to more than 8-12 inches. Permafrost greatly hampers soil sampling and prospecting (Figure 42).

Geochemical Sampling and Mineralization

Several sediment gold anomalies were originally detected in small north-flowing streams (samples LS1963-64). Follow-up recon sample LS3011, which assayed 0.9 ppm Au, is chips of altered meta-mafic volcanic rock with a few quartz veinlets. Several other rock samples (LS3013, LS3619, LS3639) in the vicinity assayed only detection level gold. No float vein quartz was observed in either the creeks or frost boils where the stream anomalies were located; no other evidence to suggest that quartz veins were responsible for the sediment anomalies was found while collecting several lines of soil samples.

Figure 42. View to the west of the Northern Lights area; note greenstone knob in right center of photo where sediment sample number LS1963, located in the gully in foreground, was anomalous in gold.

Due to permafrost the soil samples shown on the map were shallow, silty, mineral soil with variable organics and residual bedrock material present. Although sampling was done in mid-August, thaw of mineral soil below the tundra had only reached about 10 inches or less. Samples were cut from frozen ground where possible. Nearly all soil samples reported less than anomalous threshold level gold; however, three samples, apparently randomly located, were moderately to highly anomalous with gold. Sample LS3635 assayed 0.37 ppm Au. None of the soil samples reported anomalous arsenic or antimony values. It is likely that the soil chemistry is affected to some degree by downhill solifluction creep and other mixing at the shallow depths that were sampled.

A rock sample (LS1928) was float of silicified meta-felsite, with secondary grains of arsenopyrite, and it assayed 0.34 ppm Au. The site is immediately downhill of the greenstone contact. While collecting soil samples downhill of LS1928 it was noted that the inferred thrust fault contact is associated with rusty clayey weathering colluvium. The contact zone can be projected down the low ridge that forms the left limit of Nugget Creek from this location, and it is suspected to be perhaps partially the cause of the iron-oxide in the creek bed. No downhill soil response to the gold value found in sample LS1928 was detected.

Quartz vein float was found east of the greenstone sill near sample LS3032. Chips from a small boulder-size piece assayed 0.78 ppm Au. Minor scorodite staining and a ribbon-banded texture were present along the side of the boulder.

Water samples LS3620 and LS3622 contained elevated zinc and cadmium and are described in the Pallasgreen report.

Recommendations

Additional general reconnaissance is recommended in the area. Soil samples need to be collected from greater depth and a power auger could be tried. Sampling should be scheduled in early September when thaw is at its greatest depth.

The area should be evaluated in light of the structural setting seen at the Aurora Gulch prospect where capping greenstone and underlying alteration appears to control gold values occurring in the black schist.

A ground-based magnetic survey with lines run north-northeast could be useful to infer bedrock structure and location of 110°-striking shear zones.

Mapping needs to be expanded to the 1:4,000 scale used elsewhere in the district.

Pallasgreen-Drumlummon Prospect Area

History and Location

The Pallasgreen and Drumlummon prospects were vaguely referenced in older Company reports. The prospects were relocated in 2005, near the head of Nugget Creek, and briefly evaluated. Veins of the Drumlummon can be traced in float eastward from the summit of Crystal Peak to the broad ridge at the head of Nugget Creek; the ridge forms the divide between McLellan and Lake Creeks. The Pallasgreen veins extend east from the upper reach of Nugget Creek. Since the two prospects are geologically similar and in close proximity, apparently displaced from one another by a fault zone, this report will discuss both.

The Pallasgreen is a prominent hogback outcrop of iron-stained quartz (Figure 43), first prospected in the early 1900s; the Drumlummon does not outcrop. In total, the early workings were several hand trenches. There are references to a 1946 visit to the area by the Territorial Mines Inspector and assay reports of three samples, but the accounts are vague and location is uncertain.

In 2006 reconnaissance-level sampling and mapping was done. Soil grids were completed and three magnetometer lines were placed across the projected trace of the veins on the Pallasgreen. Access to the Pallasgreen-Drumlummon prospect area is via the east ridge road built in 2006.

Figure 43. The original Pallasgreen prospect is a prominent quartz hogback.

Geology and Structure

The Pallasgreen-Drumlummon prospect area is underlain by rocks of the lower thrust plate of the Chandalar district, comprised of black carbonaceous schist (Dlb unit)and a tan-weathering, micaceous, pyritic, carbonate, feldspathic schist. Meta-mafic and -felsite sills are included in the Lower Plate although the contact relationship is unclear. Massive greenstone sills occur at the higher elevation across the Nugget Creek valley to the west of the Pallasgreen and mantle the ridge to the north; greenstone occurs northeast of the Drumlummon. The greenstone sills are believed to also be part of the Lower Plate.

Typical of gold-quartz veins elsewhere in the Chandalar district, the Pallasgreen-Drumlummon prospects are controlled by, and are aligned to, a northwesterly set of altered shear zones striking 105° to 115°. These have been cut by younger prominent 150° to 165° fault(s) with a steep east dip that displace the Pallasgreen area about 400 feet or more north from the Drumlummon prospect. The distribution of vein float suggests there is actually a set of several 150° to 165° faults that have each displaced the veins in increments. A landslide near samples LS3990 and -91 following particularly wet weather in 2006 exposed at least another, possibly two, subparallel 150° to 165° faults. The 150° to 165° faults are best exposed in the open saddle of the Drumlummon area near sample LS3333 and consists of graphite, pulverized schist, and gouge. A train of lag quartz vein boulders follows the northward displacement of the principal Drumlummon vein.

Magnetic Survey

Three survey lines bearing 020º are shown on the Pallasgreen prospect map set (Figure 44). Readings, on 5-foot spacings, of the total magnetic field were taken with a handheld Geometrics unit with the receiver oriented north and mounted on an 8-foot staff. There was no base station unit; however, the survey was performed at a time of very low diurnal drift and a base location point was returned to repeatedly to assure that

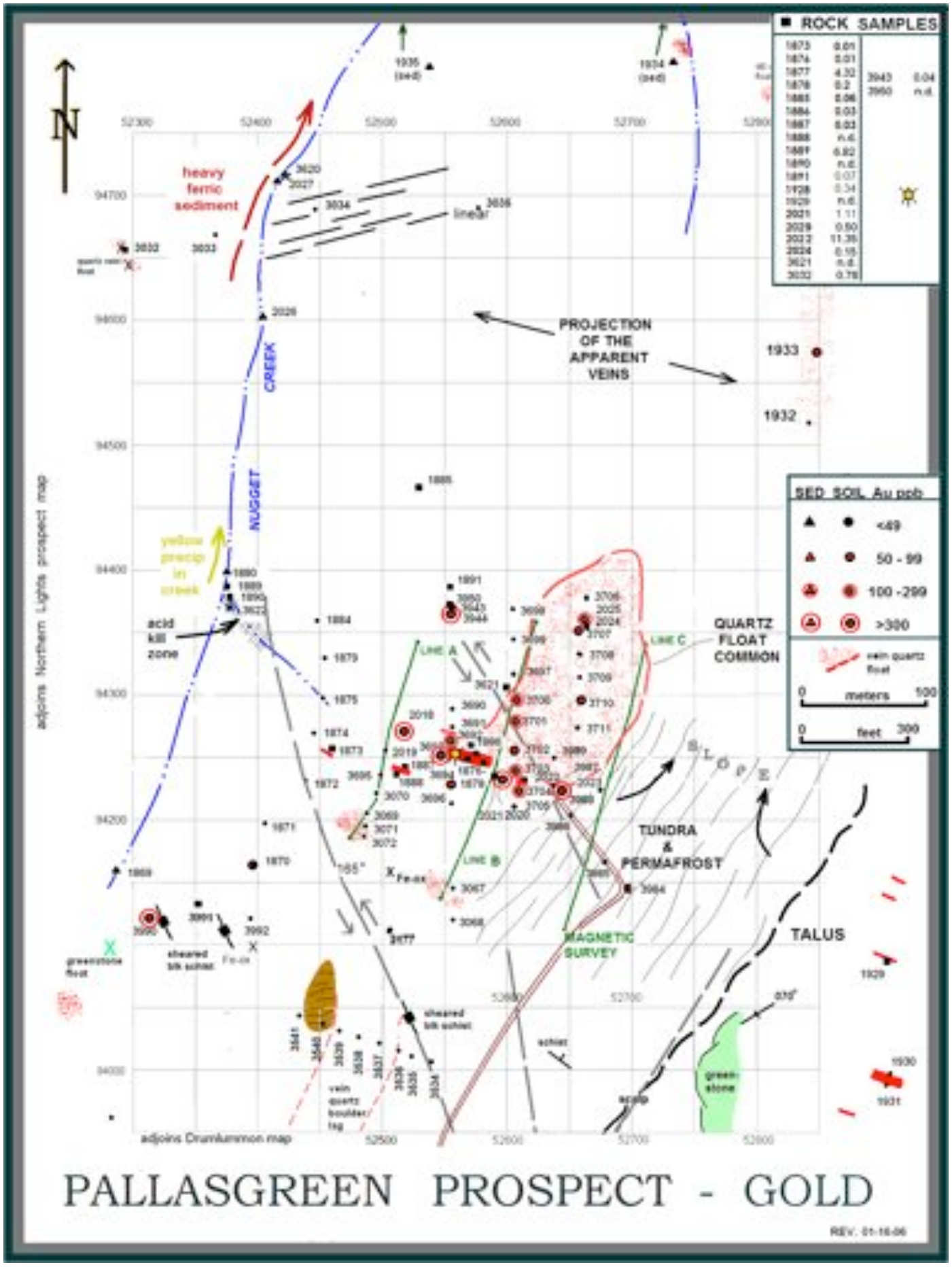


Figure 44. Pallasgreen prospect map showing gold analyses. For distribution of arsenic, see Appendix D.

minimal drift was occurring. The following fence profile (Figure 45) of the magnetometer Lines A-C is interpreted on the basis of field observations along the lines and mapping in the area. Areas of quartz vein and quartz float are coincident with magnetic low fields. The 100- to150-foot width of the magnetic low zones agrees with field conclusions that several veins and breccia bodies, perhaps pinching and swelling or discontinuous, are present within zones of alteration striking about 105°-115°. The lack of continuity of the north zone seen on Lines A and B but missing on Line C is inferred to be due to offset on one of the 150° to 165° faults that displace the Drumlummon from the Pallasgreen.

Magnetic high field areas bordering the quartz-bearing zones are apparently due to the tan weathering feldspathic schist that contains disseminated sulfides, including arsenopyrite and pyrrhotite. This rock type can be seen in the footwall outcrop north of the Pallasgreen quartz veins where a 300 gamma spike is recorded on Line B. The higher magnetic readings may be due to magnetic pyrrhotite. At the Ratchet Ridge prospect disseminated pyrrhotite was magnetic and accounted for extreme magnetic spikes in profiles.

No magnetic survey lines were run over the Drumlummon prospect.

Geochemical Sampling and Mineralization

Considering the two prospects end-to-end, quartz vein and quartz-Fe-oxide breccia can be traced for over a mile strike length. Closely spaced veins and breccia appear from quartz float mapping to form at least two distinct zones, approximately 350 feet apart as seen in the magnetic data discussed above. This is also evident on the Drumlummon map, Figure 46.

Sampling of the Drumlummon, including a soil grid in 2006, found only a few sporadic gold-arsenic anomalies. Samples of vein material contained 0.03 to 1.16 ppm (samples LS1992-1998). No significant anomalies were found on the soil grid; however, a single soil sample (LS3990) of sheared black schist and quartz shards reported 0.966 ppm Au and 7390 ppm As.

The principal outcropping vein at the Pallasgreen is about 25 feet wide and strikes 100°-105º with a steep south dip. The vein occurs at or near the contact of a light brown feldspathic schist on the footwall and black graphitic schist on the hanging wall. In thin section the tan-weathering feldspathic schist footwall rock is characterized as metamorphosed alteration, probably formed by regional metamorphism of massive hydrothermal alteration of an indeterminate protolith and cut by veinlets of ferroan dolomitic calcite and quartz. (Petrography by Spectrum Petrographics, Inc., M. DePlangher, 2005).

The vein is cut by brecciated quartz-limonite zones and numerous joint sets that strike 160º - 170º with a northeast dip. Breccia is composed of iron-stained quartz shards embayed in limonite. Wispy bands of chlorite and arsenopyrite are common along the footwall and hanging wall zones. Vein samples returned only low assays for gold; the best assay of 4.32 ppm Au from a 1-foot channel sample of the footwall (see cross-section, Figure 47). Float rock and a prospect pit 300 feet to the west (samples LS1887-88) suggest one or more parallel bands of quartz-limonite breccia and quartz vein also cut the graphitic schist. The parallel vein, or veins, was noted to contain up to one-inch grains and clots of galena and arsenopyrite. Another old prospect pit exposes the inferred strike of the vein from samples LS1887-88 about 300 feet east (sample LS2022) to where assay of random chips reported 12.12 ppm Au from a 6-foot vein. Pallasgreen soil samples contain up to 1.91 ppm gold (LS2020) and several pans of soil each contained grains of gold, such as at the site of sample LS2020.

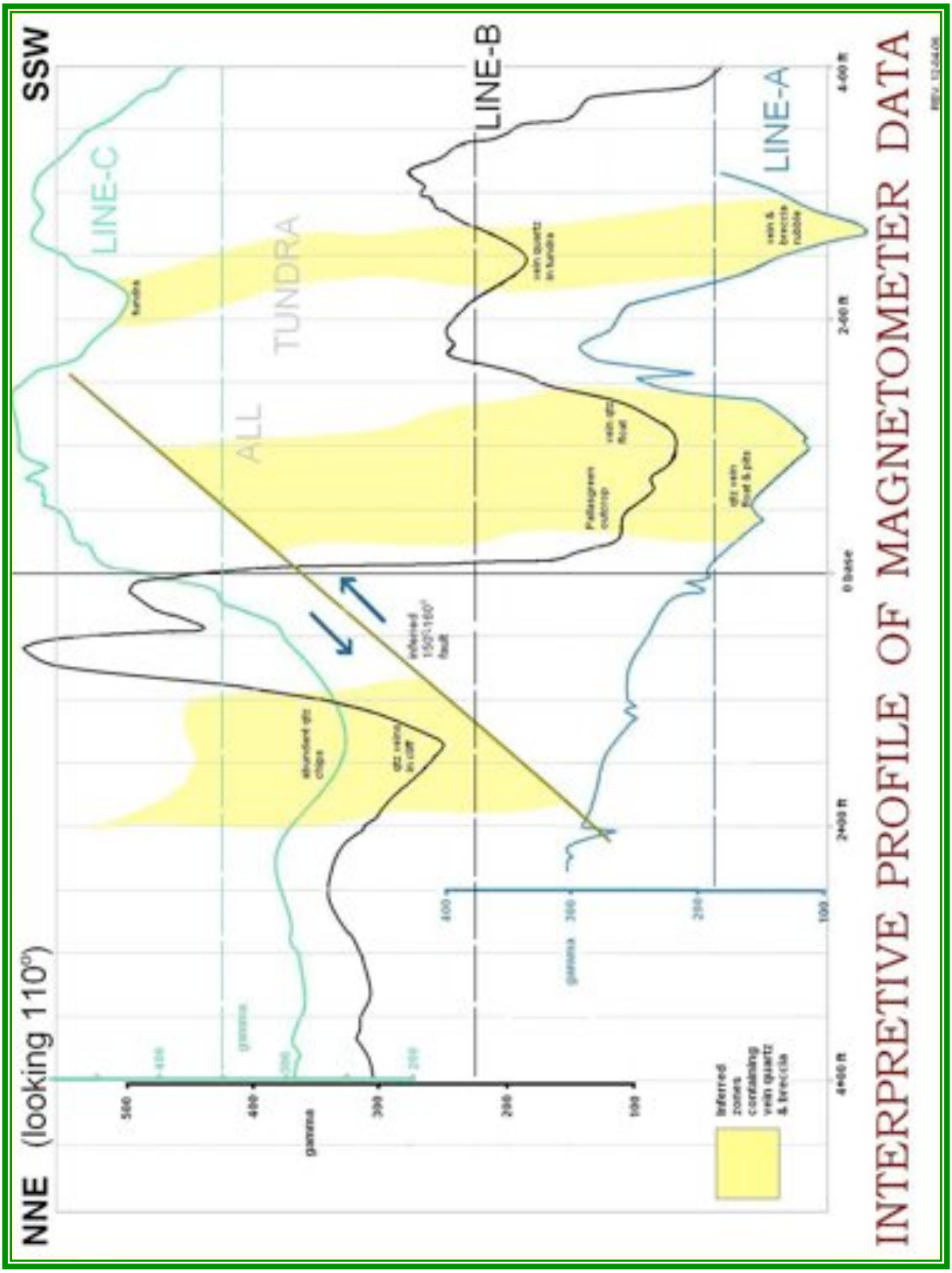


Figure 45. Interpretive profile of magnetometer data from the Pallasgreen prospect.

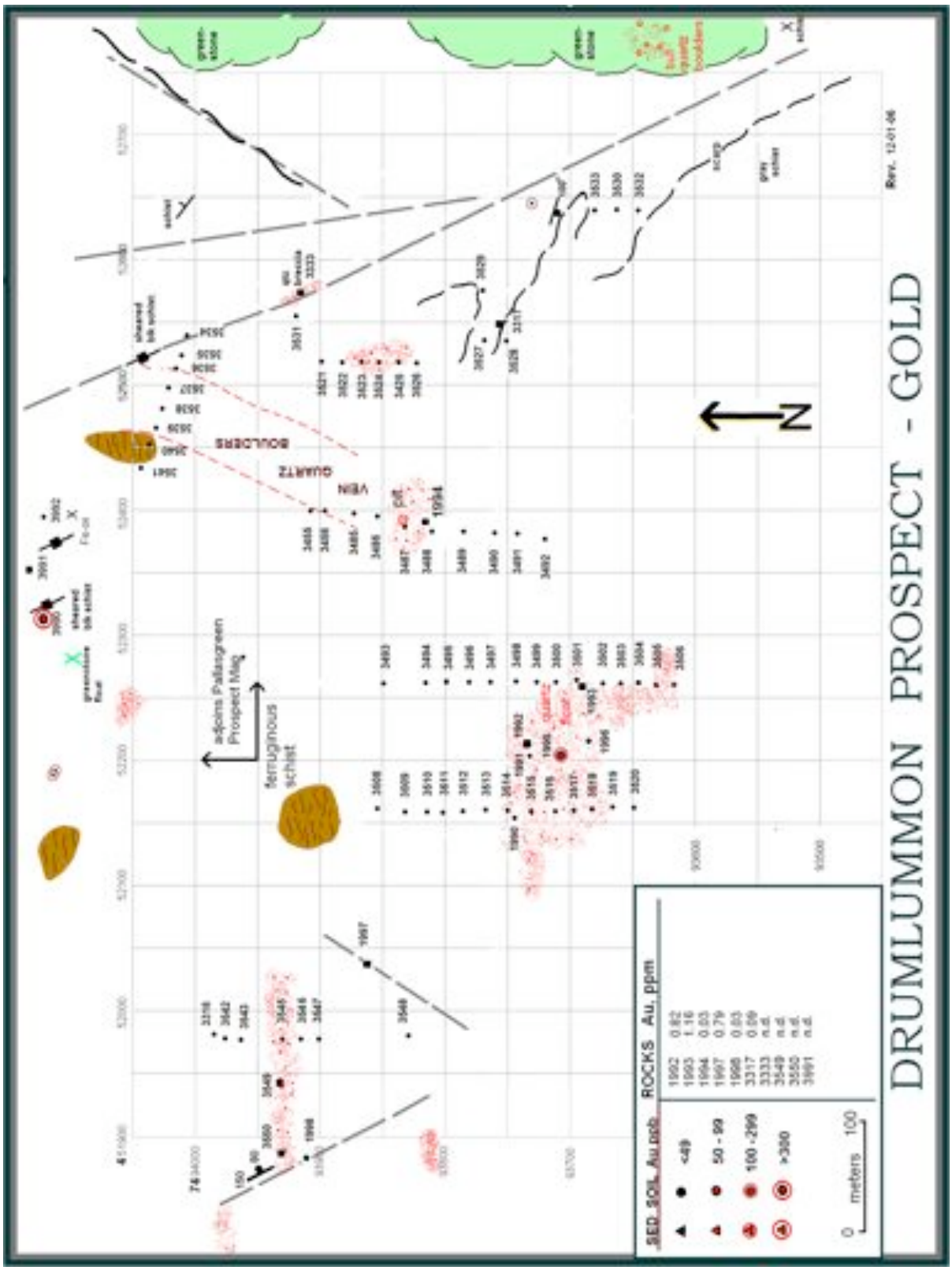


Figure 46. Drumlummon prospect map showing gold analyses. For distribution of arsenic, see Appendix C.

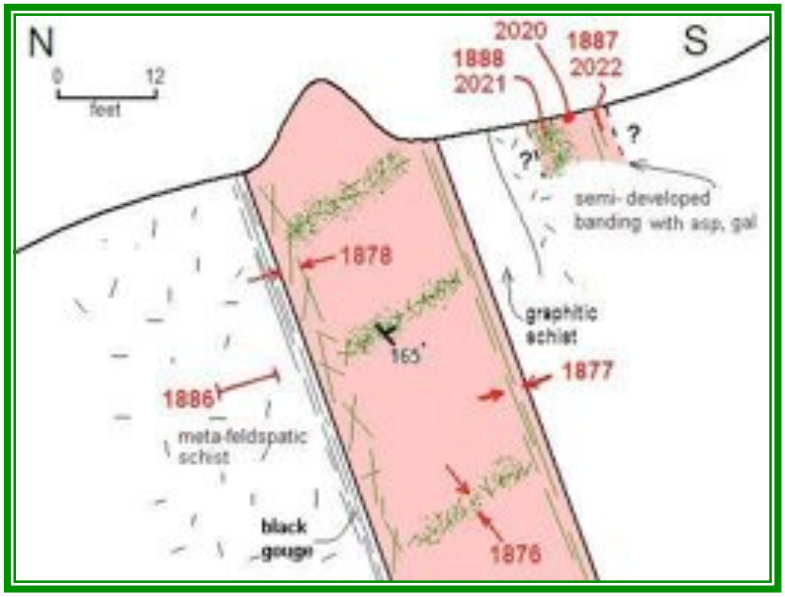


Figure 47. Cross-section of the Pallasgreen prospect, view looking east. Note the south vein may actually be two veins, closely parallel. Samples LS1887 & -88 (from one sample pit) may be from a different vein than the vein sampled by LS2020-22 (from a near-by sample pit).

The soil grid over the Pallasgreen shows arsenic values follow gold values closely. All data from both the Drumlummon and Pallasgreen samples were also scanned for antimony. Unlike prospects in the Upper Plate, such as the Summit and Kiska area, the Drumlummon and Pallasgreen prospects in the Lower Plate, also including the Pioneer, are void in antimony.

Magnetic and soil sampling suggest the Pallasgreen veins are displaced north between Lines B and C. Additional work is required to confirm this. Soil sample LS3944 contained 0.81 ppm Au, apparently due to a rusty weathering 2- to 3-foot wide quartz vein exposed upslope. This vein may project to underlie the north end of magnetometer Line B.

The Pallasgreen veins strike westward to underlie the Nugget Creek valley. A prominent massing of vein quartz boulders occurs where the vein projection would pass under the streambed. An acidic vegetation kill-zone occurs nearby within the gully draining the Pallasgreen outcrop; pH measurements of 3.5 were obtained. Nugget Creek, for several hundred yards below this westward projection of the Pallasgreen veins, is precipitating a milky yellow to blue-white coating on stream gravels. Below this point the precipitate becomes an intense blood-red limonitic coating and water pH was measured at 3.5 to 4.0. It is suspected that groundwater percolating through a N70E shear zone that intersects the valley at this point may affect the downstream water chemistry, causing the ferric precipitate. None of the stream sediment samples shown on the attached map set were anomalous in gold or associated metals, probably due to the stream water acidity. Water sample LS3620 from Nugget Creek and sample LS3622 from the gully below the Pallasgreen reported anomalous zinc with 958 and 390 µg/L, respectively. Both samples also had elevated copper, about 50 µg/L each (see analyses water sampling, Figure 5 in the Surficial Sampling Summary).

Recommendations

The Pallasgreen veins should be trenched at UTM easterlies 452525, 452600 and 452650. A fourth magnetic line to the east of Line C should be done to assess the possible offset on the veins. An additional trench at about 452700 should be done pending the results of the magnetic survey. Drill testing should follow to confirm depth. Based on observations of

other Chandalar veins in 2006, it is likely the Pallasgreen veins consist of pinching and swelling quartz veins, as well as stockwork, breccia, and discontinuous quartz lenses. Mineral values may also extend into the wall rock.

Cause of the anomalies at samples LS3990 and LS3944 should be investigated. A magnetic survey line west of Line A to the vicinity of sample LS3990 is suggested.

Several additional water samples should be collected from Nugget Creek to confirm the zinc anomaly found in 2006. Sediment and water samples should also be collected where the creek exits the canyon near Little Squaw Lakes.

No further work at the Drumlummon is recommended at this time.

East Mikado (Pedro) Prospect

History and Location

The Mikado shear zone is a major regional structure now mapped to extend more than six miles along a northwest strike. To the southeast beyond St. Mary's Creek and across Big Creek, the Mikado shear aligns with early-year claims on Pedro Creek, where quartz vein(s) can be seen high on the hillslope north of the creek. Quartz veining was reportedly prospected in the past, but no other information about this work was found in Company files.

Sampling and Mineralization

The Mikado shear system and quartz underlie the mouth of St Mary's Creek and Big Creek, where rich placer gravel was mined immediately downstream in the early 1900s. The veins were traced southeast to where old prospect pits were found, apparently representing the Pedro prospect. The veins exposed in bedrock and float consist of massive white quartz lacking any banded or 'ribbon' quartz component. Only iron oxide coatings were seen in the veins; no arsenic minerals were identified. A total of 16 reconnaissance samples were collected, as shown on the prospect map, Figure 48. None were anomalous in gold, arsenic, or antimony. A single sample, LS3358, analyzed 370 ppm Pb. With no other elemental anomalies in this sample the lead value is discounted.

Soil from the old prospect pit was panned and only a single minute gold grain was seen.

Recommendations

Due to the lack of significant metal values in soil samples, no further work is recommended.

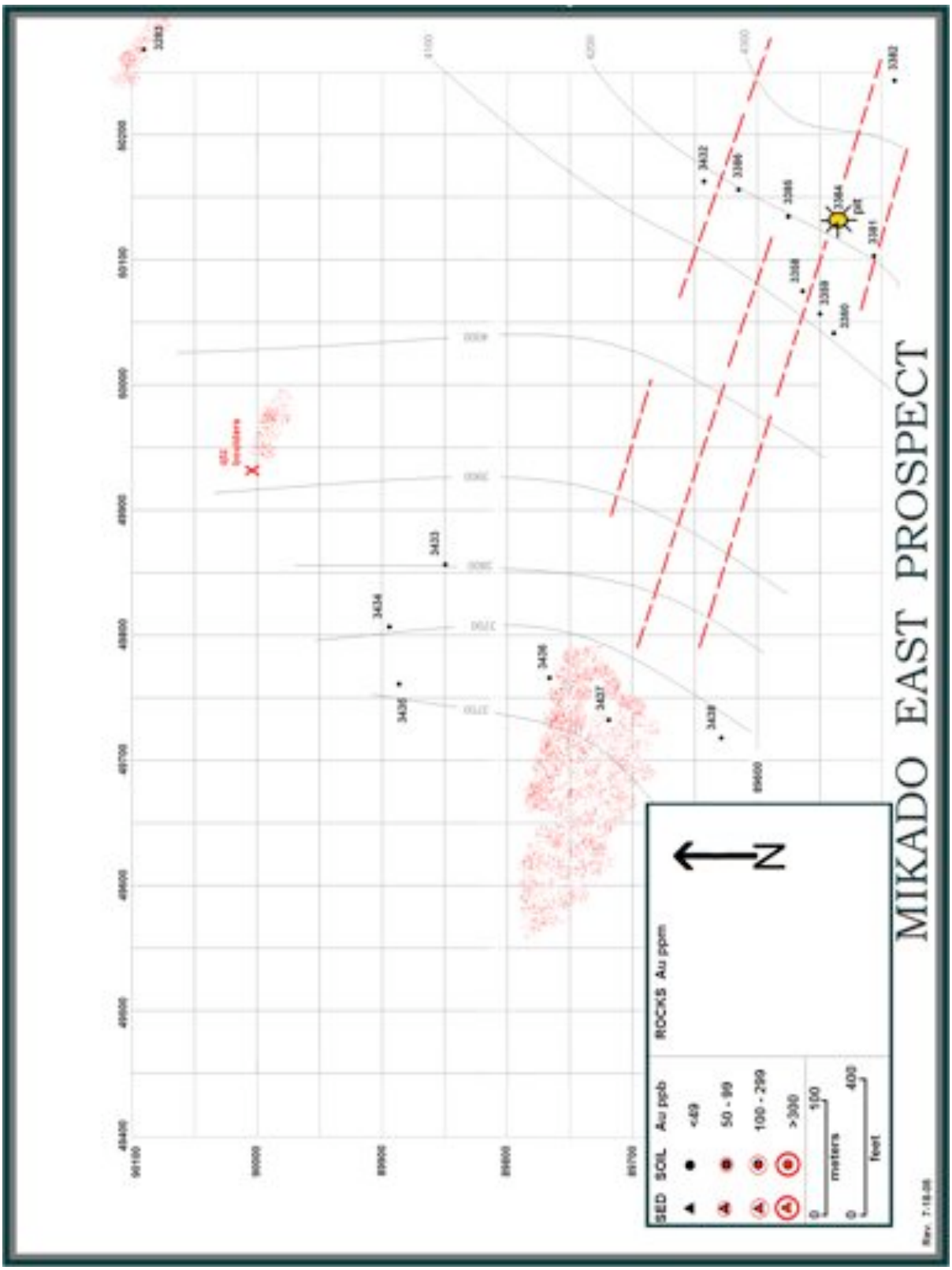


Figure 48. East Mikado (Pedro) prospect map.

Pioneer Prospect

History and Location

Brief descriptions of the Pioneer prospect (Figure 49) are found in Company files. The prospect was discovered about 1908; early 1900s prospecting and hand trenches are reported to have assayed up to 7.54 oz Au/ton in vein quartz. In 1946 three float samples collected by the Territorial mine inspector averaged 1.45 oz Au/ton. A dozer trench (Figure 50) in 1981 by the Company lessee at that time found the gold values to be hosted in irregular pinching and swelling quartz lenses within a shear zone, and grab samples up to 10.3 oz Au/ton are reported.

In 2004-2005 soil sampling defined a 2,000-foot long gold-arsenic anomaly that followed the shear zone in both directions from its exposure in a deeply incised ridge saddle. In 2006, a trench was excavated to the east of the saddle. Several magnetometer lines were done; however, there were no drill holes attempted because of end-of-season weather and the lack of drill pipe.

The original discovery is at an elevation of 4,100 feet and is accessible via the east ridge road built in 2006.

Geology and Structure

The prospect is hosted in the steeply south-dipping Pioneer shear zone that cuts black schist at or near the contact with lighter gray mica schist lying to the north. Tentatively, the black schist is from the Dlb unit the Lower Plate. The shear features sericite, pulverized quartz lenses, and clay gouge zones separated by fractured black schist, and it also includes masses of red-weathering massive carbonate that outcrops just south of the 1981 dozer trench, shown on the prospect map.

The Pioneer Shear is a major structural feature in the Chandalar district and can be followed for nearly 6 miles. As seen on high-altitude imagery, it forms well developed topographic features. Following it east from Mello Bench, the shear bifurcates under Little Squaw Creek; the northern limb cuts the summit of Crystal Peak, and the southern limb is host to the Pioneer prospect. As currently mapped, the shear locally represents the contact between the Upper and Lower thrust plates with the Lower Plate lying immediately north of the prospect area.

About 150 feet south of the saddle a greenstone sill is exposed as ridge top rubble (Figure 48). Similar greenstone is seen on the north side of Crystal Peak and metacarbonate-altered greenschist is exposed in the road cut near sample LS3822. Several massive quartz-carbonate veins cut the greenstone sills but no mineralization was observed. The most prominent quartz-carbonate veins occur as talus south of sample LS1946, where float suggests a northwesterly strike. Similar talus is being shed to the northwest from Crystal Peak, apparently aligned with the north limb of the Pioneer Shear.

Periglacial features effectively mask bedrock at locations beyond 1,000 feet from the ridge saddle, which limits sampling to only the higher elevation. To the northwest of the saddle incompetent sheared schist has formed major landslide features that obscure bedrock and mantle the slopes. To the southeast the shear zone is marked by a dense progression of solifluction lobes that extend nearly to McLellan Creek.

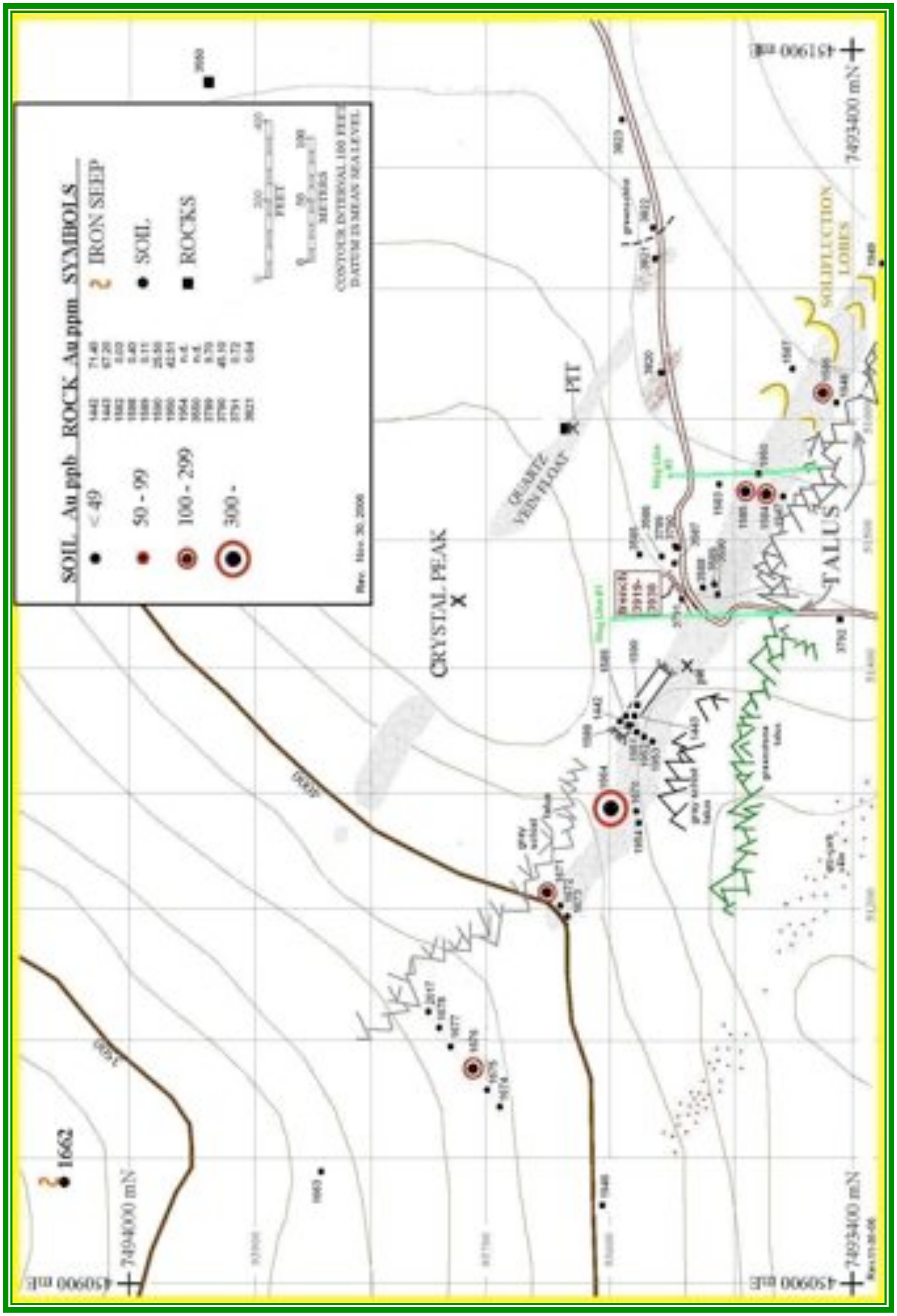


Figure 49. Pioneer prospect map showing gold analyses. For distribution of arsenic, see Appendix C.

Figure 50 - 1981 dozer trench showing pinching and swelling auriferous quartz lenses.

Magnetic Survey

Two survey lines oriented due north are shown on the prospect map. Readings, on 5-foot spacings, of the total magnetic field were taken with a hand-held Geometrics unit with the receiver oriented north and mounted on a 8-foot staff. There was no base station unit; however, the survey was performed at a time of very low diurnal drift and a base location point was returned to repeatedly to assure that minimal drift was occurring.

Results of the survey showed no discernible anomalies and no distinguishable features associated with either the black or gray mica schist or the mineralization found near the southwest end of the 2006 trench.

Geochemical Sampling and Mineralization

At the original Pioneer discovery, mineralization occurs as small lenses of high-grade brecciated quartz and clayey pulverized material hosted within the northeast footwall margin of the Pioneer shear. To the southeast the mineralization may become more vein-like, as it lies along the southwest hanging wall margin of the shear.

Northwest of the ridge-top trench the relation of the vein trace to the shear is uncertain but the soil anomalies suggest the mineralized vein appears to deviate north from the trace of the shear at a slight angle, 3º-5º. This projection would therefore align with the East Grubstake quartz vein prospects on the opposite slope of the Little Squaw valley.

No evidence has been found at the Pioneer prospect to suggest that mineralization forms a persistent mineralized quartz vein. Neither the 1981 nor the 2006 exploratory trench found veins, but rather high-grade gold mineralization occurs in isolated lenses and stringer veins. Development of a mineralized body at the Pioneer would have to find high-grade lenses, together with lower grade material to average sufficient grade to be bulk minable. Reported channel sampling of the bulldozer trench in 1981 assayed from 0.02 to 2.52 oz Au/ton with an unweighted average of 0.218 oz Au/ton.

Recent sampling by the Company largely confirms the earlier reports. Additionally, higher grade samples assaying up to 45 ppm Au have been collected from new exposures and float along the shear zone to the southeast (LS1950, -3789, -3790, and -3921; see Figure 48). The gold-quartz lenses appear to occur over a structural width of about 75 feet, or perhaps in two or more definable zones of lesser width. Note samples LS3789 and -90 are from quartz vein about 50 feet north of the other occurrences.

Dispersion of gold and arsenic in soil appears limited and no anomalous antimony values were detected. Soil sampling as shown on the prospect maps reports moderate to a few high gold values, although some samples located directly downslope of the mineralization failed to detect gold (i.e., LS3585-90). Similarly, relatively few of the soil samples reported significant arsenic although arsenic is consistently present with gold in rock samples from the Pioneer prospect.

Recommendations

Mineralization at the Pioneer prospect shows similarities to the Mikado deposit, where gold-quartz lenses occur within a 10- to 15-foot width contained in a wider shear zone. Assays of rock separating the quartz lenses contained little or no gold. At the Mikado a second parallel zone of gold-quartz lenses and shear gouge was reported immediately to the north of the main shear zone. Exploration at the Pioneer should target a similar deposit composed of numerous high-grade lenses. A series of trenches spaced 150-350 feet apart are recommended, with drill verification of the structure at depth if trench results warrant.

The existing soil grid should be in-filled with more closely spaced samples and additional lines to the northeast and southwest as possible. Exploration beyond 1,000 feet from the ridge saddle will require spring or fall seasonal overburden drilling when surface conditions are frozen.

The relationship of the greenstone sills to the shear zone mineralization should be investigated and prospect-scale geological mapping improved.

None of the assays performed to-date have utilized metallic screen assay procedures. This should be done as part of any future program.

Placer gold may have accumulated in the gulch west of the prospect. Landslide deposits, partially reworked by fluvial processes, have masked possible earlier placer deposition.

Prospector East-Grubstake East

Old caved adits remain at two prospects on the west slope above Little Squaw Creek. Both prospects occur along the Pioneer shear zone on the ridge north of the Little Squaw Mine, as shown on the prospect map (Figure 51).

Prospector East

The Prospector East is the only Chandalar prospect that is essentially a silver-lead vein with subordinate gold values, about 3 feet thick. The vein contains argentiferous galena and arsenopyrite for 400 feet along an exposed N80°W strike, probably along a fault. Mineralization is exposed in six hand trenches and a short caved adit. Two 2004 Company samples (LS1616 and -18) from the dump assayed 171 and 740 ppm silver and 2.94 and 2.50 ppm gold, respectively, as well as elevated bismuth (1,120 ppm) and 104 ppm cadmium. The northwest end of the vein appears truncated by a northeasterly fault. Similarly on the southeast the vein is truncated by a prominent shear zone also striking N70E.

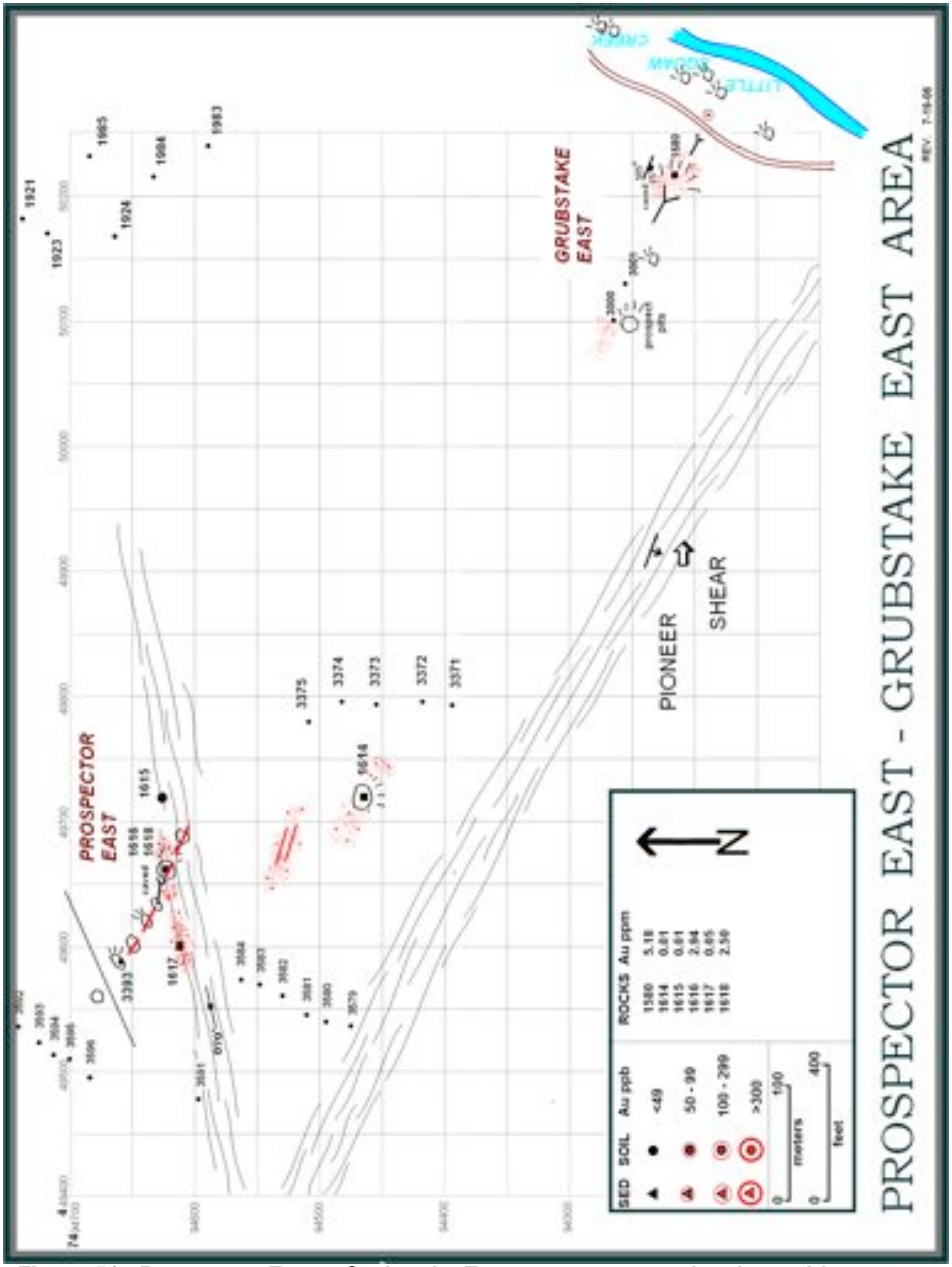


Figure 51. Prospector East – Grubstake East prospect map showing gold analyses. There are no other elemental distribution maps in the appendices.

Grubstake East
The prospect occurs just west of Little Squaw Creek and consists of a short, now caved, adit that, according to unsubstantiated reports, encountered relatively coarse gold. The adit was driven on a composite vein of massive white quartz and a banded zone containing thin chlorite seams, wisps of arsenopyrite and scorodite staining. There are also several nearby hand-dug trenches that apparently did not reach bedrock. The area is covered with talus and no bedrock exposures of the vein remain. A single composite chip sample (LS1580) of scorodite-stained, banded quartz from the dump contained 5.18 ppm gold.

The Pioneer, Grubstake East, and Prospector East prospects possibly align with a concealed structure that deviates from the Pioneer shear zone just east of the ridge that is east of Little Squaw Creek. In 2006 three short soil sample lines in the area near and between the Prospector East and the Grubstake East prospects failed to detect continuation of the veins. However, the hillslope is deeply mantled in talus, possibly masking a geochemical expression.

Ratchet Ridge Prospect

Location and History
The Ratchet Ridge prospect is located on the ridge divide between Little Squaw Creek and Big Creek at an elevation of 4,500 feet. It is easily accessed from the mine road connecting Little Squaw Creek to the Big Creek and Tobin Creek mining camps. A short adit has been driven on a poorly exposed 2.5-foot quartz vein and a nearby shaft and some hand-dug pits are present, as shown on the Ratchet Ridge prospect map (Figure 52). There were no records found in Company files describing the prospect or reporting past assays.

In 2006 a trench was excavated to determine if the Summit veins extended to Ratchet Ridge. Additionally, a total field magnetic survey identified 1,000-gamma anomalies over acid-kill zones as shown on the map (Figure 52). Two mag lines were completed. As a result three RC holes were then drilled in the vicinity of the southern anomalies.

Geology and Structure
Ratchet Ridge is underlain by gray to black carbonaceous schist, which is overlain to the southeast by the boulder talus-forming light gray muscovite-chlorite-quartz schist as described at the Summit prospect. The carbonaceous schist is highly incompetent and is the cause of mass slope failures in the north of the prospect area, particularly along the road north. Float rock of carbonate and dolomite are found in the area, suggesting that a carbonate stratum or perhaps hydrothermal lenses are present (e.g., LS4007, a heavy, dark gray carbonate, which contained threshold values of Au and As).

Several pronounced steeply dipping structures are present. The prospect area is bounded on the south by the Summit shear zones that strike about 105º, dip steeply north, and are among the major deep-seated shears that cut the Chandalar district. Immediately north of the easterly projection of the 105º shear, a series of short 070º fault-hosted veins are exposed along Ratchet Ridge. The veins, which dip about 65º southeast, are apparently controlled by reverse faults cutting the ridge, which creates the distinct saw-tooth appearance of the ridge when viewed from a distance. An old shaft, inclined to follow a steep S35E-dipping vein, provides the best view of one of the 070º veins (LS1974); see

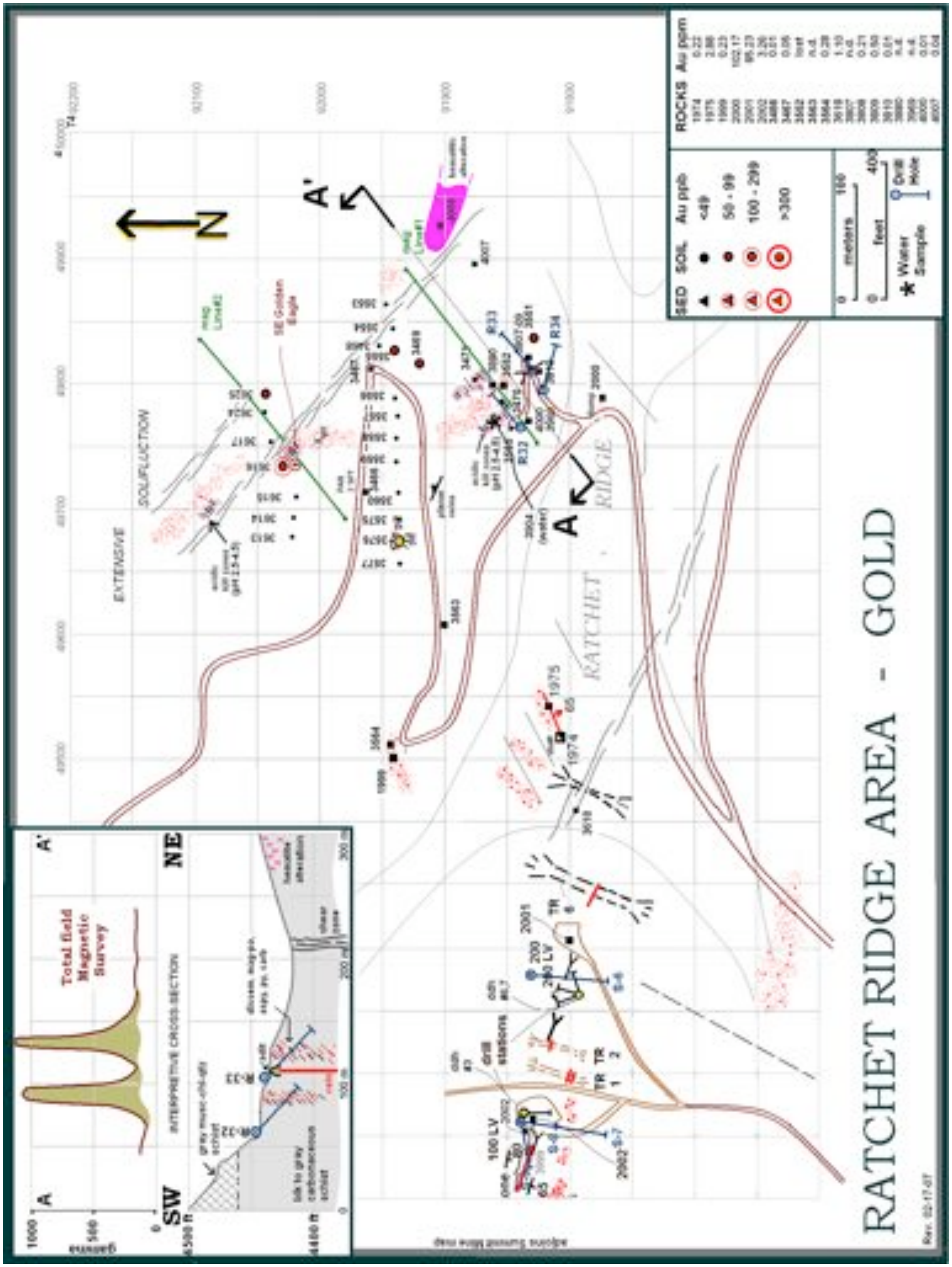


Figure 52. Ratchet Ridge prospect map showing gold analyses. For distribution of arsenic, see Appendix C.

Figure 53. Veins striking 070º are seen elsewhere in the district and, together with the 105º veins, are presently believed to represent a conjugate set of faults.

The Ratchet prospect is also controlled by shear zones striking 140º -145º that appear unique to this area; to-date they have not been identified elsewhere in the Chandalar district. Several of these shear zones are mapped in the landslide-rock glacier region between Ratchet Ridge and the Aurora Prospect to the northeast and feature acidic seepage and vegetative kill zones along their strike. These shear zones may be vertical or, more likely, may have a steep northeast dip.

An area of weak but pervasive hematitic alteration about 50 feet wide occurs in the east of the map sheet and was sampled by soil sample LS4008. No anomalous metals of interest were detected.

Magnetic Survey

Two survey lines bearing 055º are shown on the prospect map. Readings, on 5-foot spacings, of the total magnetic field were taken with a hand held Geometrics unit with the receiver oriented north and mounted on an 8-foot staff. There was no base station unit, however, the survey was performed at a time of very low diurnal drift and a base location point was returned to repeatedly to assure minimal drift was occurring.

Results of the survey showed two striking 1,000-gamma anomalies over sharply defined steeply dipping to vertical bodies that are coincident with the overlying acidic seepages. On Line #1 (see cross-section, Figure 52) the 1,000-gamma anomalies straddle the magnetic low field directly over the quartz vein. Line #2 also shows a sharp 1,000-gamma anomaly over the single acidic seepage present there and a return to base-level low field readings over the projected trace of the quartz vein(s) immediately to the northeast.

Lines #1 and #2 both transect the 140º -145º shear zone but magnetic readings indicate little change in the total field over the zone.

Geochemical Results and Mineralization

Sampling of the 070º veins indicated only trace to low gold values. Where exposed, the veins are about 2 feet thick and random chip samples indicated gold values of 0.22 to 2.88 ppm Au. Sample LS1975 of Fe-oxide and quartz with remnant arsenopyrite and galena below the old shaft assayed 2.88 ppm Au. At least five similar veins are present. The inferred intercept area of these 070º-striking veins with the 105º-bearing Summit veins is covered and mantled with frozen scree and colluvium. A trench was excavated southwest of the old shaft to explore the possible intercept but confirmed, instead, that the Summit veins were offset to the southwest where they strike into the Big Creek Bowl area.

To the north, several soil sample lines across the projected quartz vein and 140º- to 145º -striking shear zones indicated only relatively low level gold anomalies. Soil sample LS3616, located near the acidic seep on magnetic survey Line #2, was moderately anomalous in gold (0.102 ppm) and arsenic.

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Acidic seepages and vegetation kill zones were sampled by standard soil sampling techniques but no anomalies were reported, perhaps due to the strong acidic conditions present that may keep metal ions mobilized in water. A single water sample was collected from the acidic seepage at sample site LS3904. Field measurements of the water pH registered as low as 2.5. Water analyses indicated elevated Cd (13.8), Pb (8.9), Cu (458),

and Zn (738) µg/L (see water sampling report in the Surficial Sampling Summary). Gold was sought at a detection limit of 0.2 µg/L, but was not detected.

Examination of the acidic seeps concluded that the acidic conditions were the result of oxidizing sulfides at depth. This was later confirmed to be strongly magnetic pyrrhotite by RC drill holes RR-32 and RR-33 (Figure 53). Drill intercepts of RR-32 at 110-130 feet reported pyrrhotite, and intercepts between 80-110 feet on RR-33 contained pyrrhotite, arsenopyrite, and pyrite, as well as carbonate and a massive, aphanitic, dull green mineral. Intercepts on drill hole RR-33 at 80-85 feet reported 0.28 ppm Au, and intercepts between 100 and 110 feet averaged 0.32 ppm Au. Field interpretation of the drill chips from these intervals is that they came from narrow sills of carbonate-altered mafic rock. Petrographic and mineralogical study results are pending.

Figure 53. Preparing to drill the Ratchet Ridge prospect. Note the two acidic seep areas and dead vegetation that straddle a quartz vein and directly overlie 1,000-gamma magnetic anomalies later found to be due to magnetic pyrrhotite in auriferous, carbonate altered, mafic rock.

Recommendations

A more complete magnetic grid survey should be performed. The northern two soil lines should be extended east and another line attempted farther to the north if sampling can be done below talus and landslide cover. Prospect-scale geologic and alteration mapping should be improved and the extent of the hematitic alteration studied. Additional drill testing, especially near the acid seep on Line #2, is needed.

Rock Glacier Prospect Area

History and Location

There is no previously reported prospecting of the Rock Glacier area or any evidence of previous work except a single hand trench high on the west valley slope. The prospect area is accessible from the mine road up the Little Squaw Creek valley but the terrain is rough, chaotic with landslide and lobes of boulders, too soft for heavy equipment except in the drier part of the summer, and its all in continuous motion downhill.

Geology and Structure

A frozen rock debris feature that can be described as a rock glacier typical of periglacial terrain has developed in upper Little Squaw Creek valley (Figure 54). The feature encompasses several lobes, each derived from individual areas of intense mechanical disintegration, landslide, and erosion at the head of the valley. All rock debris is locally derived from the upper Little Squaw Creek valley and congealed with clayey rock flour, fault gouge, and other fine-sized material. Plastic movement is evident by gravity-stretched lobes and intervening small crevasses. Due to the incompetence of the carbonaceous black schist bedrock and numerous faults underlying the upper valley, the past and continuing landslide processes have created a cirque-like feature typical of glacial terrain.

Figure 54. View, looking south, of Rock Glacier prospect, upper Little Squaw Creek; note the cirque-like configuration of the upper valley due to repeated landslides and plastic movement of rock debris forming the rock glacier below.

The rock glacier overlies several prominent shear zones and associated vein systems. From the west a multiple set of Eneveloe quartz veins and shear zones, striking about 105° to 110° and steeply dipping north, project under the lower body of the glacier (see prospect map, Figure 55). Masked by the rock glacier, the Eneveloe zones are inferred to intersect the projected fault structure zone from the Ratchet Ridge prospect, located on the ridge at the head of the valley. The Ratchet Ridge faults are likely poorly exposed shear zones that strike northward at about 140° to 145° but possibly with northeast offsets by a series of 020° strike slip faults. No evidence was found that the Eneveloe vein system continues east of the valley bottom to cut the gray schist forming the east wall of the valley; therefore, the Eneveloe is presumed to terminate against the 140°-145° Ratchet Ridge structure.

Geochemical Sampling and Mineralization

Vein quartz, altered vein breccia, and altered metasedimentary rock are found over an area about 150 feet wide and 800 feet long that begins near the snout of the glacier and extends south along the axis of the lobe (see photograph, Figure 56). Veins of the Eneveloe, including the related Jupiter, Bonanza, and Woodchuck prospects, strike toward and presumably underlie rock glacier. Samples from individual quartz boulders contain up to 6.51 ppm Au. A single soil sample (LS1624) from the area of quartz litter on the glacier assayed 0.93 ppm Au. Due to the highly mixed nature of the rock debris, including mineralized quartz and quartz breccia, no further sampling was attempted.

An 80-foot long exposure of banded, pulverized quartz vein with graphitic clay, sheared and altered black schist, and limonite wall rock section was located at LS2030 in a rafted segment of bedrock. Although the host block of bedrock was displaced, the total movement by solifluction was judged to be minimal, probably less than 300 feet. Cobbles and small boulders of fine-grained massive white vein quartz containing wispy blebs and thin (<2 mm) bands of arsenopyrite and trace-to-minor galena are also present. These indicate that a composite vein occurs with both a massive quartz zone and a banded pulverized segment. A random chip sample of massive white quartz vein material contained 4.06 ppm gold (sample LS1447). Two channel samples across 24 inches of the banded crushed quartz assayed 0.87 ppm gold; however, metallic screen assays (samples LS3051 and -52) reported 3.95 and 4.19 ppm Au. A panned sample of the pulverized quartz found hundreds of minute gold specks. A push core through 7 feet of the adjoining gouge and sheared, altered schist footwall(??) assayed 0.438 ppm Au.

Sample data from the map area were scanned for elevated antimony and none was found except in the rock chip sample collected at an old prospect pit, sample site LS1591 in the southwest of the map area. The vein exposed there is inferred to be an extension of the Jupiter vein; it assayed 116 ppm Sb, as well as 5.69 ppm Au, and greater than detection limit As.

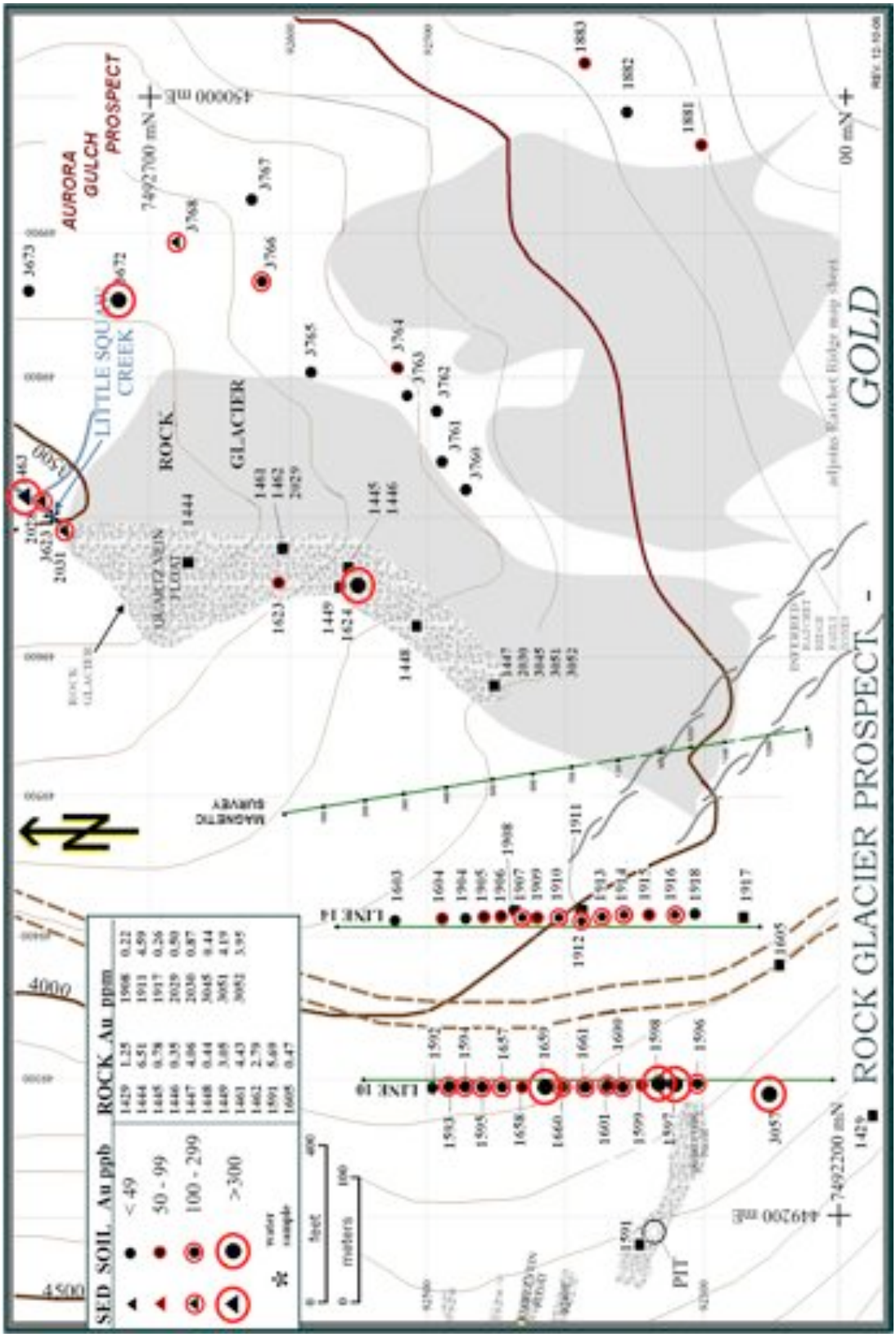

Figure 55. Rock Glacier prospect map showing gold analyses. For distribution of arsenic, see Appendix C.

Figure 56. Rock glacier, as seen from Little Squaw Peak, depicting quartz vein litter on the west lobe of the rock glacier; also shown is the 140° to 145° trending Ratchet Ridge fault structure zone that is inferred to intersect the 105° to 110° Eneveloe vein swarm below the glacier debris. The 'X' denotes a landslide block of bedrock containing a quartz vein.

Little Squaw Creek emanates from the snout of the west lobe and flows north, depositing a clayey milky to yellow coating on rocks in the stream bed. Stream sediment samples from the area contained 170 to 442 ppb gold and anomalous arsenic (samples LS1463, LS2028, LS2031). The water has a distinctly metallic taste; a water sample tested elevated in zinc and cadmium (pH 6.0), but no gold was detected at a detection limit of 0.1 µg/L (see water report in Surficial Sampling Summary, sample 3623).

Tentative reconstruction of movement of quartz vein rubble that mantles the rock glacier traces the origin of the float to the projection of the Eneveloe area veins. Two north-south soil sampling lines (Lines 10 and 14, Figure 56) were laid out to cross the inferred veins above the west margin of the glacier. Runs of vein quartz float were mapped across both lines, indicating that several vein systems are present. Sampling on Line 14 encountered deeper colluvium and some dilution of the samples with barren surface slide material is suspected, nevertheless nearly all samples on Line 14 were moderately anomalous for gold and averaged 0.163 ppm Au compared to an average 0.188 ppm Au for Line 10. Samples were collected between 2- and 6-foot depths at most sites on both lines. Results further indicate the Eneveloe veins as well as subparallel veins, likely extensions of the Jupiter, Woodchuck, and Bonanza veins, are present under both lines. Furthermore the soil gold and arsenic values, as well as vein samples, suggest the Eneveloe area veins are more highly mineralized at the lower elevations nearer the rock glacier than they are on the high ridge of the Eneveloe saddle to the west (see Eneveloe prospect map, Figure 21, showing sample Line 00 at the top of the ridge, which averaged only 0.031 ppm Au).

Magnetic Survey

Three north-south magnetic survey lines are shown on the prospect map (Figure 55). Readings on 5-foot spacings of the total magnetic field were taken with a handheld Geometrics unit with the receiver oriented north and mounted on a 8-foot staff. There was no base station unit; however, the survey was performed at a time of very low diurnal drift and a base location point was returned to repeatedly to assure minimal drift was occurring. Unfortunately significant drift occurred between the times when each line was surveyed, rendering the interpretation difficult.

Generally, magnetic low fields occurred over the projected vein traces but there were unexplained magnetic high interruptions. Correlation between Line 14 and Line 18 was poor, perhaps due to the inferred intercept of the 140°-145° fault structure. Overall, the magnetic field did appear to give a signature over the vein and alteration zones, but lines more closely spaced in a grid survey using a base station recording unit will be necessary to better interpret the magnetic field.

Recommendations

Given the large, widespread volume of vein quartz float mineralization and abundant cobble-size fragments of argillized and brecciated schist wall rock observed on the west lobe of the rock glacier, it is suggested that a significant undiscovered zone of mineralization may occur on the combined vein traces that extend from the west.

Soil sample Line 10 should be extended at least 350 feet south and a parallel line should be done about 350 feet upslope. Previous sampling from the Eneveloe saddle area has found only trace level gold values, yet high-grade gold quartz has been found lower on the west side of the saddle (see Eneveloe prospect report). The suspected similar improvement in gold grade with depth (lower elevation) on the Eneveloe veins at the elevation of the rock

glacier should be studied further and compared with similar data on the west side of the Eneveloe saddle.

Additionally, a closely spaced ground magnetic grid, about 1,600 feet square, perhaps using induced electrical systems, could help pinpoint drill targets by detecting altered quartz and breccia zones in bedrock of black phyllite-schist. One or several drill holes should target the north-dipping Eneveloe veins below the road, and several holes should test the inferred intersect of the Eneveloe veins with the Ratchet Ridge faults. Drilling conditions will be difficult.

Although no evidence of quartz veining was found on the northwest-facing hillslope between the Rock Glacier map area and the Ratchet, several soil samples reported anomalous gold. Additional soil sampling should be done as possible between the talus debris.

St. Mary's Prospect

History and Location

St Mary's Creek is a short tributary to Big Creek and heads against a mountain pass of the same name. It overlies the trace of the Mikado shear zone and historic trenches and old placer workings are found along nearly its entire length. Most of the known gold production of 25,340 oz ascribed to Big Creek was mined as placer from its confluence area with St Mary's Creek.

A 1920's Company report cited an assay of 0.24 oz Au/ton (8.23 ppm Au) in a sample across an 11-foot wide oxidized quartz vein in the bed of St Mary's Creek. In 1994 placer mining on St Mary's Creek also exposed a quartz vein and limonitic, sheared, and bleached schist and clayey gouge zones farther downstream.

The road up St Mary's creek has washed out but the area is readily accessed on foot from the Big Creek road and airstrip.

Geology and Structure

The St Mary's valley is deeply incised and creek gravel is shallow. The creek is coincident with the shear, which probably accounts, in part, for the deep V-shaped valley. Melting of Quaternary ice on Big Creek below the mine areas also is likely to have created a lower creek base level that consequently encouraged erosion along upper Big Creek and St. Mary's Creek. Mining has exposed numerous creek bed outcrops of black schist and quartzite of the Chandalar Lower Plate, as well as gouge zones of the Mikado shear. Pieces of greenstone and meta-felsite rock occur in float as are common in Lower Plate rocks.

Sampling and Mineralization

At least two steeply north-dipping veins are present (Figure 57); one follows the hanging wall of the Mikado shear zone below the creek bed while the other underlies the left limit hillslope and is exposed only in float. The vein in the creek bottom is a persistent quartz vein up to 10 feet wide that locally parallels a body of quartz-iron oxide breccia, 6 feet or more thick. The best exposure is at sample site LS2032, where the massive white quartz vein is exposed in the creek bed and the breccia forms the right limit bank. Neither the hanging wall of the quartz vein nor the footwall of the breccia zone were exposed. No mineralization was observed, although soil sample LS3191 was slightly

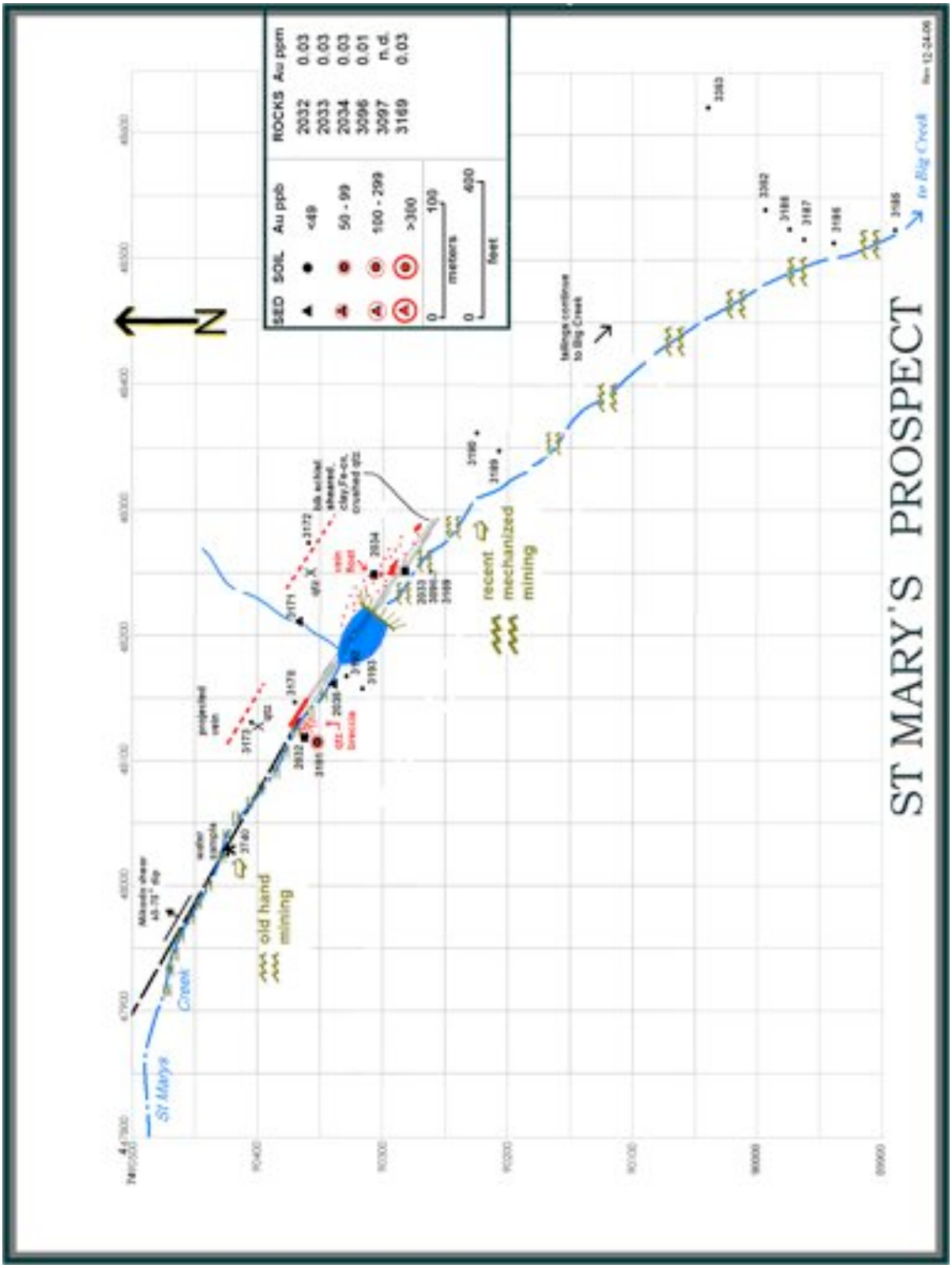

Figure 57. St Mary's prospect map showing gold analyses.

anomalous in gold. Elsewhere the vein is less than three feet thick. No significant metal values are found associated with the hillside vein.

Evidence of old hand-placer mining, shown on the prospect map, closely parallels the vein and shear zone. The terminus of the uppermost hand mining coincides with the divergence of the shear zone into the northeast valley slope. The gold concentration in alluvial gravels on St. Mary's Creek was apparently adequate to support re-mining of the creek in the 1990s as far upstream as the reservoir.

A single water sample (sample LS3740) was collected where white residue accumulated in the creek bed. No concentrations of metals were detected in the water.

Recommendations

There were no significant gold values found in any of the rock or soil samples to-date. The 1920's report of about one-quarter ounce gold in the quartz vein could not be re-verified. Only limited additional reconnaissance work, which should include late-season (deepest soil thaw possible) soil sampling of the covered northeast-facing valley slope, is suggested. Some minor hand trenching could be of benefit near sample site LS2032 to expose the hanging and foot walls of the vein structure. If improved results are obtained from the soil sampling effort, it should be followed by a limited magnetometer grid.

Summit Prospect

Location and History

The Summit prospect is centrally located in the Chandalar mining district. Historic trenches and adits have explored quartz veins on the prospect. The quartz veins are subparallel to the Summit shear zone, which consists of several shears concentrated over a width of about 100 to125 feet. The Summit shear is traceable for about 1.5 miles between the upper bowl on Big Creek on the east and Big Squaw Creek on the west. A prominent shear zone with associated quartz veins cuts the ridge to the west of Big Squaw Creek; it is likely a continuation of the Summit system, which would give it a total strike length of nearly 3 miles. Auriferous quartz veins have been traced from the 200 Level adit to about 150 feet beyond the apex of the Summit saddle, a distance of 1,300 feet. Current interpretation is that auriferous veins in the Big Creek Bowl are an additional 1,300 feet eastern extension of the Summit system, though displaced about 350 feet south (see Big Creek Bowl map, Figure 12). To the west of the Summit apex the quartz veins appear to dissipate near drill hole SUM-12 (see Summit prospect map, Figure 58), however, soil-sample gold values up to 1 ppm persist west well beyond evidence for continuation of persistent mineralization.

In the early 1980s a short period of mining produced 1,401 tons of ore at an average grade of 1.29 oz Au/ton. There is no documentation whether or not this total includes much, if any, of approximately 800 tons mined from a high-grade stope, which was examined when the tunnel was re-opened in September, 2006. Reportedly this ore shoot zone contained bonanza-grade gold and assayed up to 90 oz Au/ton.

Geology and Structure

Geology of the area is black to gray carbonaceous phyllite to schist (Mikado Phyllite, Dup) overlain by lighter gray, muscovite-chlorite-quartz schist of the metaturbidite unit (Dut) (photograph, Figure 59) that forms resistant ridge tops and talus boulder fields.

Mineralization appears confined to the lower carbonaceous phyllite-schist unit. Mineralized veins are likely controlled by the steep north-dipping, 105º- to 115°- trending shear and joint zones that parallel the principal shear. Consequently, the veins and/or mineralized zones should project along strike east and west, but should be capped at about 4,800-foot elevation by the overlying talus-forming light gray schist. Thus, to the west, auriferous zones would project to at least 48900 EAST and daylight in the gully below there, and consequently be responsible for the large soil anomaly extending to 48700 EAST. The soil anomaly begins at about elevation 4,800 feet and was followed downhill to at least 4,450 feet elevation. To the east, in Big Creek Bowl, the veins can be traced lower, to 4,200 feet, so an apparent minimum of 600 feet of vertical extent on the Summit veins can be inferred.

Veins and the shear zones are offset by 020º near-vertical faults that appear to post-date the mineralization. Joints of this orientation are common. To the east of the 200 Level the Summit system intercepts a covered concentration of northeast faults of 040° to 070° orientation. These faults are the apparent cause of the south offset of the Summit system into the Big Creek bowl (see Ratchet Ridge and Big Creek Bowl maps, Figures 52 and 12, respectively). At the Ratchet prospect conjugate 070° fault-veins are likely related to the Summit veins.

Note in the annotated photo above, that the light gray, brittle talus-forming, muscovite-chlorite-quartz schist is shown as the cap on the low hills to both the north and south of the Summit prospect. This capping extends south, where it is eroded to expose the Kiska and Chiga prospect areas hosted in the carbonaceous phyllite-schist, and north, where it is similarly eroded to expose the Eneveloe saddle and nearby prospects. As seen elsewhere in the district the resistant quartzose schist forms and armors the ridge tops. The underlying gray-black carbonaceous phyllite-schist hosts most of the gold prospects. The carbonaceous unit (Dup) includes a fissile black carbonaceous or graphitic phyllite that weathers readily and is responsible for the large bowl and consequent rock glacier that descends from the head of Little Squaw Creek. Locally, contact below the gray muscovite-chlorite-quartz schist near the Summit prospect may be a NW-dipping fault but there is little evidence to support this at the moment. In any event the gold zones intercepted by the drill holes would likely not be found to rise above the lower phyllite-schist contact.

Mineralization

The Summit veins do not exhibit the same ribbon-banding that is seen at the Little Squaw Mine 100 Level. Instead the veins feature a variably weak to strong breccia texture, absent in some locations, but resembling the Mikado breccia-gouge veins elsewhere. Locally, especially to the west of the Summit apex, the veins become discontinuous lenses set in clayey to graphitic gouge. Arsenopyrite and lesser galena are often present in the breccia. Drilling (RVC) in 2006 at the Summit encountered at least two quartz veins, as was predicted from the 1981 core-drilling. Most vein intercepts of holes SUM-6 to -12 were disappointing and gold assays generally did not agree with the limited 1981 core drilling program by nearly an order of magnitude. Poor gold recovery is suspected to have contributed to the discrepancy but this can not be verified. Drill holes SUM-7, -8, and -9, however, reported near ore grade intercepts up to 16.15 ppm Au in holes that were drilled to undercut an area where channel samples in the 100 Level assayed 1+ oz Au/t.

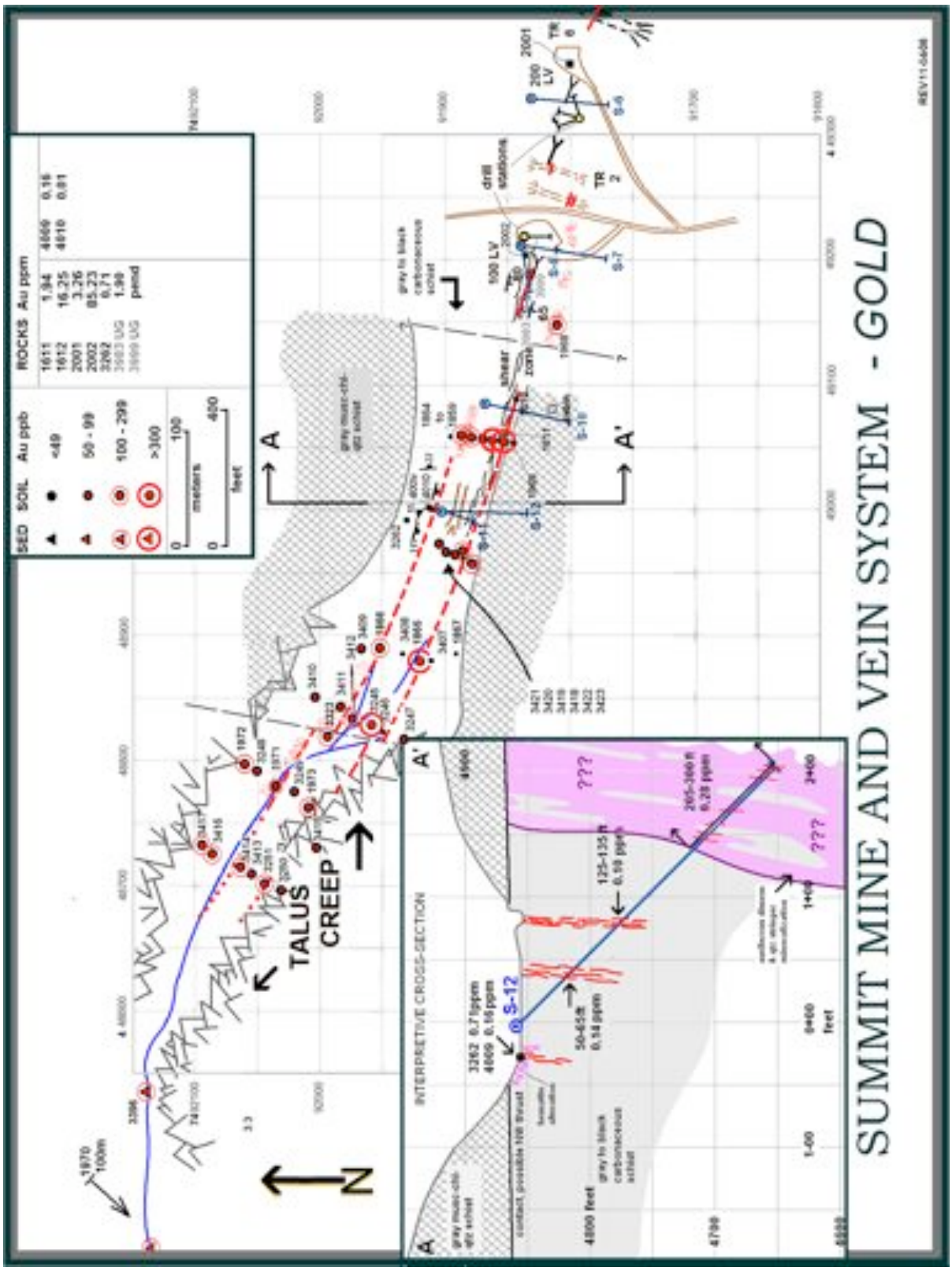

Figure 58. Summit prospect map showing gold analyses. For distribution of arsenic and antimony, see Appendices C and D.

Figure 59. View looking west to the Summit prospect area showing the extent of the gray muscovite chlorite quartz schist that overlies the carbonaceous gray to black phyllite and schist of the Mikado Phyllite unit.

The RVC drill holes SUM-7 to -12 also cut associated low-grade gold zones in gray to black phyllite footwall where little quartz, probably only quartz stringers, were found. The zones widen westward. The most developed low-grade zone was intercepted in the last hole west, SUM-12. At drill hole -12 the quartz veins, which were identified on the surface, were cut at 50-55 feet and between 125-135 feet in the drill hole; however, assays of the 5-foot intercepts reported only trace gold values. A deeper intercept, between 205 and 300 feet, showed widespread low-grade gold mineralization associated with little quartz veining (see cross-section insert on Figure 58). Average assay for this section was 0.28 ppm Au with higher grade mineralization near the bottom of the hole. The five intercepts near the end of the hole calculated over the last 25 feet averaged 0.53 ppm Au. The hole ended in mineralization and total width of the zone remains unknown.

Examination of the multi-element data for the 95-foot intercept in hole SUM-12 indicates persistently elevated levels of elements As (500-2,500 ppm), Cu (20-70 ppm), and Sb (15-45 ppm). Some five-foot intercepts reported anomalous Cd, Co, and W. Multi-element data (31 elements) for each five-foot interval between 195 feet and 300 feet (TD) of SUM-12 are given in Appendix H.

Recommendations

The zone unexpectedly cut in drill hole SUM-12 is too low in grade to be even sub-economic but it apparently represents a mineralization style that may be higher in grade elsewhere

and may be similar to what is now identified at Aurora Gulch. The hole should be extended in any future drill program and additional holes should be drilled to the west. Hematitic alteration in surface outcrops was also noted as similar to the Aurora.

South of drill hole SUM-12 the black schist unit extends under the gray turbidite schist cap unit about 900 feet to where it is eroded in the vicinity of the Chiga prospect (see Kiska map, Figure 27). There is no outcrop to be seen at the Chiga; however, soils in area are anomalous in gold, antimony, and arsenic. The Kiska prospect is located another 600 feet south; the intervening ground is also capped by the gray schist unit. In summary, the entire extent of the black phyllite-schist unit (Dup) north to the Eneveloe area and south to the Kiska is permissive for mineralization of the style seen in drill hole SUM-12 between interval 205 and 300 feet. The lower gray-black phyllite unit should be targeted for exploration in 2007 and evaluated for additional mineralized zones.

The soil anomaly in Summit Gulch to the west of the Summit apex is also defined by moderately anomalous antimony. There may be a correlation with the strong soil antimony values found at the Chiga prospect. Similarly at the Aurora prospect, anomalous antimony tended to halo the large soil gold-arsenic anomaly.

An improvement in grade may occur west of SUM-12, as soil values were up to 1.1 ppm Au. Due to the lack of significant quartz float to the west, the Summit Gulch soil anomaly may be due more to auriferous enrichment in the schist and accompanying stringers and stockwork quartz veinlets rather than the principal, somewhat continuous, quartz veins seen at the Summit 100 Level. This could explain the inability to pan visible gold from the anomalous soils, a contrast to other Chandalar prospects, which are otherwise found to contain coarse gold in soil derived from quartz veins.

Uranus Prospect

History and Location

A site of several old hand trenches and quartz veins was ‘re-discovered’ in 2004, then mapped and sampled. There are no records of the past prospecting or accounts of what was found there. The site is in a deeply incised saddle on the ridge east of the head of Little Squaw Creek.

In 2006 the site was made accessible via the newly constructed east ridge road, a trench was excavated, and two reverse circulation holes were drilled.

Geology and Structure

The prospect is hosted in carbonaceous gray to black schist. Resistant gray muscovite-chlorite-quartz schist flank the saddle to the northeast and the southwest and overlies the carbonaceous schist with a moderate northwest-dipping contact.

A prominent 110º-striking shear zone cuts through the saddle and subparallel shear fractures host vein quartz (photograph, Figure 60). The shear zone is suspected to dip very steeply to the north and to have been offset by several right-lateral northeast strike-slip faults. Joint sets generally striking 020° with a near vertical dip are common in the gray schist and believed to be associated with the northeast faulting. To the northwest the Uranus shear zone can be traced to the Aurora Gulch prospect area; to the southeast the

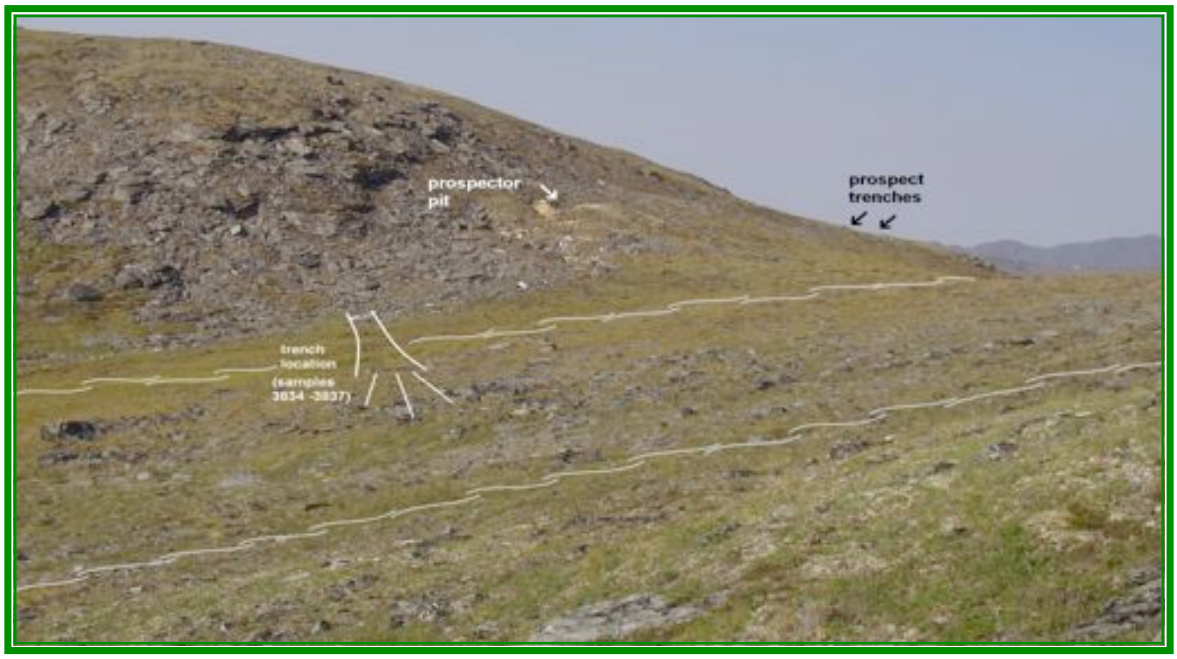

Figure 60. Uranus saddle and old prospect trenches underlain by a northwest-striking shear zone.

shear zone lies along a topographic depression that extends a half mile to near McLellan Creek.

Ridge slopes to either side of the saddle are shingled in talus, and prominent sets of solifluction lobes follow the topographic depressions of the shear zone, apparently due to the ice-rich, fine-grained and clayey soils generated by the faults.

Geochemical Sampling and Mineralization

Four very old hand trenches expose at least three vein segments. A fourth vein is indicated by float near sample site LS1955 (Figure 61). A vein of highly fractured, iron-stained, brecciated quartz (LS1957 and -58, LS2007) is at least ten feet thick and contains several thin seams, 1- to 4-inches thick, of scorodite clay and pulverized quartz. A continuous chip sample across 6 feet of the footwall section assayed 12.41 ppm gold. A one-foot channel across a 5-inch scorodite seam in the hanging wall assayed 1.89 ppm gold. Similar scorodite-stained quartz-clay vein material found on the dump of another pit assayed 45.6 ppm gold (sample LS1668). Vein quartz is found at several locations on the south of the saddle but assayed only low gold values. Gold content in veins appears to increase closer to the south side of the principal shear zone, as indicated by soil sample assays.

In 2006 an expanded soil grid was done and the veins were traced in float northwest toward the Aurora prospect and about 1,000 feet to the southeast; however, soil values for gold and arsenic located farther from the saddle were generally low level anomalies. Antimony values were not anomalous at the Uranus prospect except for sample LS1668, which contained 92 ppm Sb as well as 45.0 ppm Au.

A 35-foot long trench was excavated to test the gold in soil anomaly at sample LS2009. The trench abutted but did not include the massive quartz vein sampled in 2005 (samples

LS1957 and -58, LS2007). A series of pulverized iron-stained quartz lenses, not exceeding 1.5 feet thick, were found cutting altered to punky and limonitic black schist that was variably sheared or tightly folded. Samples LS3834 to -37 were collected but no significant gold values were detected. Only trace gold was found in several pans of fines from the trench.

Two drill holes were located to test the gold-arsenic anomalies near anomalous samples LS2008 and LS3338, which occur along the projected continuation of the principal vein seen in outcrop at sample site LS2007. Collar location and hole orientation are shown on the map (Figure 61). Both holes were drilled at 45° off of horizontal. Drill hole UR-28 encountered vein quartz at three intervals in carbonaceous schist, 85-90, 100-105, and 175-180 feet. None of these intervals reported elevated gold values. Drill hole UR-29 failed to intercept any vein quartz and returned no significant gold assays. Apparently drill hole UR-28 cut zones similar to what was found in the trench. Neither hole appears to have intercepted the principal vein as seen on the surface.

Recommendations

Gold values at the Uranus appear to be associated (a) with discontinuous veins, infrequent poddy quartz lenses, and short veinlets, and (b) with a single larger quartz vein about 10 feet or more thick. This larger vein is quite similar to the Eneveloe vein due to the lack of planar wallrock contacts, the prominent cross-cutting fracturing, and the entrained yard-scale fragments of contorted black schist within the vein. Neither vein is a composite type vein and 'ribbon' quartz was not found. Drill holes, however, did not intersect the larger vein, which was either fault off-set or does not carry to depth. Due to the low gold values found in the drill holes, any future work should focus on evaluating the larger vein target. It is recommended that (1) several short trenches be made to expose and sample the principal vein along strike, and (2) more detailed structural mapping be done prior to any additional drilling.

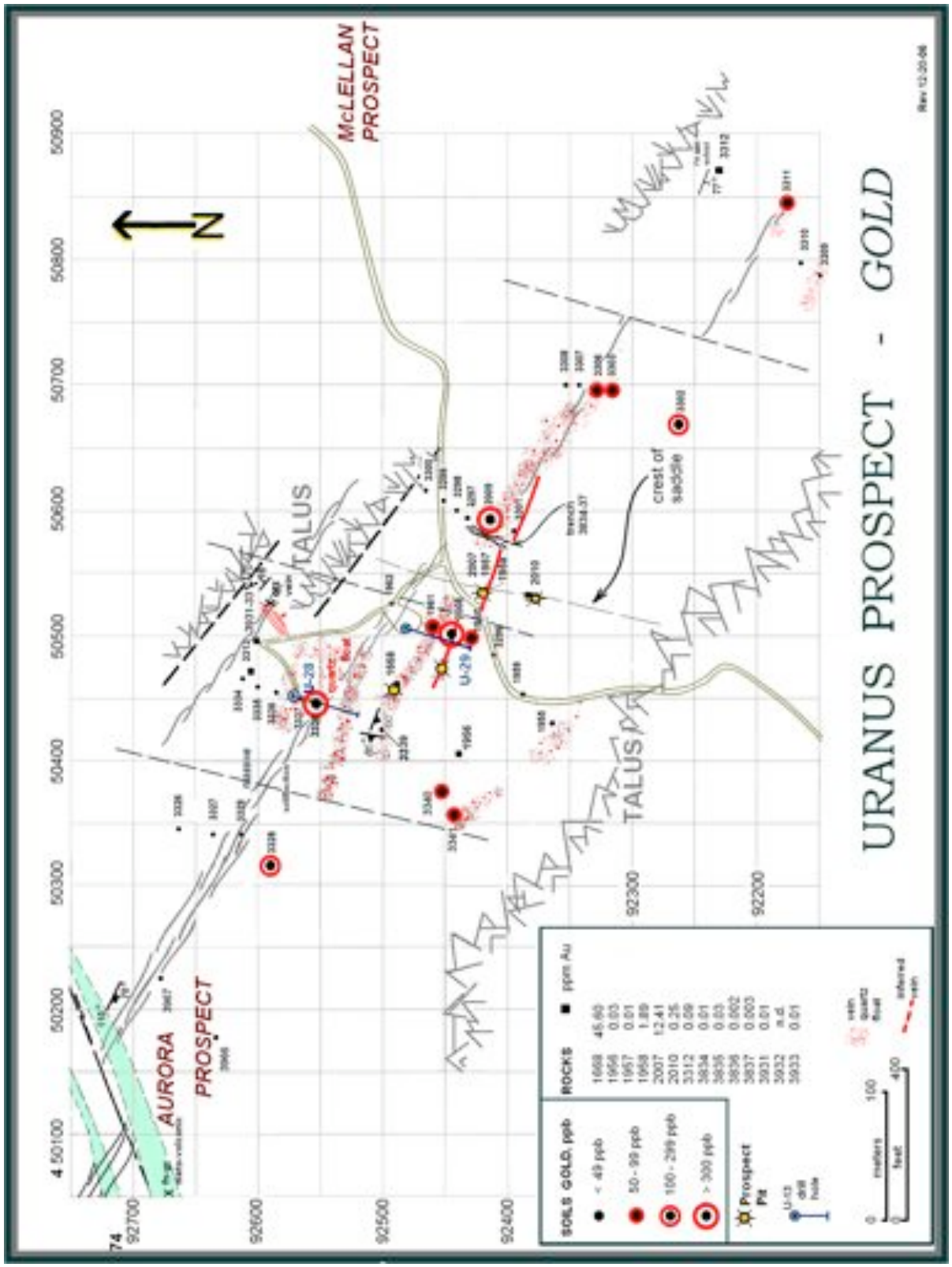

Figure 61. Uranus prospect map showing gold analyses. For distribution of arsenic, see Appendix C.

CONCLUSIONS AND DISCUSSION

Regional Geology

All of the bedrock units that underlie the district are assigned to the Coldfoot terrane of regionally metamorphosed, Proterozoic to Paleozoic metasedimentary and minor meta-igneous rocks. A thrust surface within Devonian phyllite and schist of the district separates Upper Plate Devonian sequences from those of the Lower Plate along a north-directed décollement surface. During 2006, greenstone/gabbro sills and metafelsic and intermediate igneous rocks were mapped interbedded within the dominant black schist (Dlb) unit of the Lower Plate; generally these igneous rocks are not found in the Upper Plate.

A report and map detailing the regional geology and structure of the Chandalar mining district was authored by T.K. Bundtzen and G.M. Laird, Pacific Rim Geological Consulting, under contract to the Company in 2006 and is pending on the Company website.

The Upper Plate is dominated by metamorphosed turbidites and a mappable calc meta-sandstone turbidite unit. Many of the known gold occurrences can be classed as turbidite-hosted gold veins. Also present in the Upper Plate is a fine- to medium-grain fissile black phyllite that is host to at least some of the disseminated low-grade sections of gold mineralization with bulk tonnage potential identified in 2006. A conjugate system of west-northwest, northwest, and northeast striking, high-angle and deep-seated faults cut the district.

Age of the décollement surface separating the Upper and Lower Plates is uncertain but may pre-date mineralization of the orogenic gold-quartz veins, as suggested at one location. A recent age date of 111 M.a. on sericite from an auriferous quartz lens at the Mikado Mine is similar to reported dates on gold quartz veins from the Wiseman/Nolan area.

Prospect Evaluations

Several new prospects were identified in 2006, including the Aurora Gulch, Kiska, Caribou Gulch-Kelty and Chiga. Other sites such as the Little Squaw, Ratchet Ridge, and Eneveloe were extended beyond their earlier known limits. Prospect mapping at 1:4,000 scale was continued on 38 prospects and data are compiled on 24 map sets. Additional work is planned at most sites in 2007.

Sampling in a deeply incised periglacial terrain, one must be cognizant of mass wasting processes that are present. Talus slopes and other surface deposits can include masses of bedrock that often appear as though they are in place but are in fact in motion. When solifluction materials, landslide, and frost-riven materials can be avoided, standard soil and stream sediment sampling can be cautiously applied during a seasonal thaw window of about 6 to 9 weeks. Both sampling methods have been shown to predict the presence of mineralization at Chandalar. To-date about 1,500 samples, mostly targeted on areas of mineralization, have been collected and have been compiled on the map sets. So far, only As has been identified as a pathfinder element although Pb, Zn, Cu, Cd, and Bi will spike in mineralized areas. Antimony (Sb) is anomalously present in some prospects peripheral to Au-As mineralization. The data set is too biased to mineralized locations for statistical evaluation.

Water sampling was tested as a means to distinguish mineralized areas but results are inconclusive; sampling would have to be expanded to a larger area to determine its usefulness. It may best be useful in regional exploration beyond the present claim block.

Test magnetometer profiles have successfully differentiated altered zones with quartz veins as low magnetic fields. Further magnetic surveys are planned on most prospects prior to drill testing.

Deposit Model Discussion

Mesothermal gold-quartz veins

The mesothermal orogenic quartz vein deposit model with high grade ore shoots remains valid, although most of the known auriferous zones (e.g. Pioneer, Mikado, Kiska, and perhaps the western Summit) now appear to comprise zones of discontinuous, pinching and swelling, quartz lenses, quartz stringers, and fault zones among which some of these features may be mineralized and some not. Presently only the Little Squaw veins, the Crystal, Star, Indicate, McLellan, and possibly the Eneveloe vein group appear to be wide, semi-persistent quartz veins. Mineralization on these veins, however, may be more spotty than previously thought. Despite the failure of drilling to intercept the apparent fault-offset Crystal vein at depth, it remains apparent the Crystal continues west as a likely extension of the Little Squaw 100 Level vein and is the best target at present to demonstrate continuous mineralization along a composite vein. Both the Crystal and the 100 Level Little Squaw vein exhibit a steeply south-dipping, well defined ribbon-quartz footwall zone with coarse gold adjacent to a barren 3- to 4-feet wide, white quartz zone. The Star, Indicate, Tonapah, Grubstake East, and McLellan veins are similarly continuous but as yet have not been found to have continuous mineralization of any consequence.

Drilling on the Eneveloe vein indicates it has resource development potential, particularly to the west. Although drilling on the Uranus was unsuccessful, due likely to fault displacement, the Uranus is markedly similar to the Eneveloe vein and could potentially be shown to lie along the same structure although this is not well established at present. Both veins are 15- to 20-foot wide bulbous white quartz veins with entrained masses of carbonaceous host rock, minor spur veins, and cross-cutting mineralized fractures, while lacking any composite vein appearance and ribbon-quartz texture.

Subparallel to the Eneveloe are the composite veins of the Jupiter, Chandalar, Bonanza, and possibly an unnamed vein immediately to the south. Together all these veins can be followed along strike for at least 4,000 feet from Robbins Gulch to the Rock Glacier area and persistently exhibit anomalous values in overlying soils and float rock except where the veins cross the higher Eneveloe Saddle. It is not yet clear if the Eneveloe mineralization may be related to elevation.

Vein systems in the Lower Plate black schist (Dlb) are now identified at the St Mary's prospect, Drumlummon and Pallasgreen; they are best represented at the old workings on the Pallasgreen where non-composite type, iron-stained quartz veins appear to grade into limonite-quartz-shard breccias over widths of several tens of feet that lie within wider zones of alteration. Planned trenching and drilling at the Pallasgreen in 2007 should help better define these veins.

Metasediment-hosted large tonnage disseminated gold

Several lines of evidence from the 2006 program suggest gold is present in other than mesothermal quartz veins. Plumes of at least low-grade mineralization associated with narrow quartz lenses, veinlets, and stockwork and gold values in altered phyllite are present at several prospects. Criteria for this type of mineralization seem to require a capping rock (either a silicic blocky weathering schist or massive greenstone sills are examples), the presence of carbonate in upper level rocks, and a proximal underlying deep-seated northwesterly (100°- to 120°-striking) shear zone (Figure 62). Host rock is regressive weathering, black to gray carbonaceous phyllite of the (Dup) Mikado phyllite unit but also may include black schist of the Lower Plate (Dlb). In Aurora Gulch intense isoclinal folding and shearing demonstrate that a degree of permeability existed for invasive hydrothermal fluids. Typically, pervasive hematitic alteration, sericite and minor carbonate are seen directly below the capping rock and above the auriferous zones. The best example to-date is the Aurora Gulch prospect, but this type of mineralization was found at the Summit in drill hole SUM-12, the Mikado in the hanging wall section above the known mineralization, and possibly at the Crystal in drill hole CRY-30 and the Caribou Gulch-Kelty area. Typical assays to-date range from about 0.15 to 1.5 ppm Au/.004 to .044 oz Au/ton but high-grade lenses are also encountered. At the Summit, drill hole SUM-12, which was targeted to cut a quartz vein, instead reported 0.28 ppm Au over 95 feet with the last 35 feet reporting 0.44 ppm Au, all in carbonaceous schist and minor quartz. The hole ended in mineralization. At Aurora Gulch, thin sulfide seams and disseminated sulfide grains in black phyllite assayed about 0.7 ppm and arsenopyrite lenses assayed up to 19 ppm. Also within the large soil anomaly at Aurora Gulch float of carbonate, including altered ferroan dolomite, was seen. Dolomite with thin quartz stockwork assayed 38.8 ppm Au. This type of mineralization has not been identified in the past; there is potential for additional discovery.

It is tentatively proposed that the metasediment-hosted gold mineralization at Chandalar may be similar to the recent discoveries in the Cariboo district, British Columbia. Gold at the Cariboo district Spanish Mountain prospect occurs as micron-sized disseminations in carbonaceous shale-phyllite and forms tabular bodies up to 300 feet thick and nearly a mile long. Within these, bodies of mineralization and discontinuous quartz veinlets and lenses

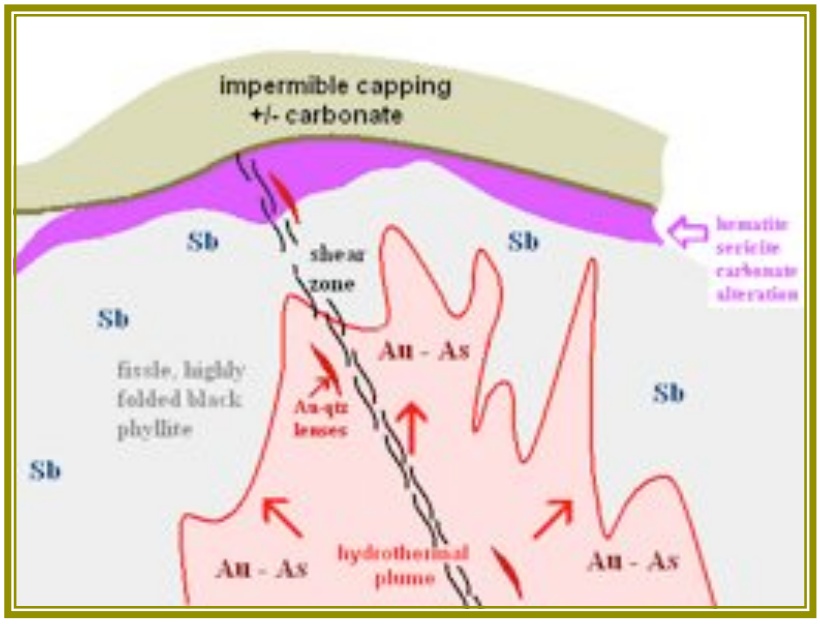

Figure 62. Proposed deposit model for metasediment-hosted large-tonnage disseminated gold.

containing high-grade gold values are interspersed. Overall, the low-grade bulk tonnage targets are generally reporting 1 ppm Au over considerable drill intercepts with some localized areas exceeding 2 ppm. Drill sections from the Cariboo district also show high-grade quartz-carbonate vein zones peripheral to the low-grade bodies preferentially occurring in the brittle-fractured quartz wacke that lies both above and below the softer auriferous sedimentary rocks, possibly analogous to the capping rock units seen at Chandalar.

Auriferous altered metavolcanic hosted

These occurrences are likely related to the metasediment-hosted gold showings described above. At the Northern Lights prospect gold values were found in both meta-mafic and -felsic volcanic rock found in float. The area is tundra covered and underlain by permafrost but anomalous with gold. The Northern Lights area is within the Lower Plate Dlb black schist.

At the Ratchet Ridge prospect, a magnetometer survey detected sharp magnetic high fields over acidic seeps later drilled and found to be due to disseminated magnetic pyrrhotite, pyrite, and arsenopyrite in a carbonate-altered meta-mafic rock sill(?) hosted in highly folded black Mikado Phyllite. Petrographic and mineralogical work is pending.

Gold Placer Resource Potential

Three placer targets that may contain significant resources of placer gold are known in the vicinity of Little Squaw Creek, Spring Creek, and Big Squaw Creek. The most important is the Little Squaw Bench, which has been shown by early drift-miners to contain high-grade pay gravels concentrated in pre-glacial and post-glacial alluvium. A more recent reconnaissance drilling program, 1997, outlined an inferred resource of 194,000 ounces of placer gold. To the west of the Little Squaw Bench lies Spring Creek on which no previous prospecting is known to have occurred, but appears to be an old channel of Big Squaw Creek, pre-dating recent glaciation. The final target is Big Squaw Creek on which early hand-mining occurred on its upper parts, but was not known to have been prospected on its lower reaches due to thawed ground and a high water table.

A brief reconnaissance was made to verify old Company records, (J.O. Keener, Metallogeny, Inc.), of placer resource potential; see Company Web site, www.littlesquawgold.com.

2006 Chandalar Drill Program – Summary of Results

Following on the mapping and prospect evaluation work begun in 2004, a 2006 reverse-circulation drilling program was undertaken, mostly to verify results from work in the 1980s. The 2006 drilling program was basically successful as a scout program. Nine prospect sites were drilled by a total of 39 holes and total footage of 7,763 feet. Although 10,000 feet of drilling had been planned, the drilling was hampered by mechanical breakdowns and a very late spring thaw followed by poor weather that persisted regionally in northern North America during July and August. The problem with excessive blow-by sample loss during drilling plagued the program, and cause of excessive pulverization of the cuttings was not resolved. Consequently, the question of possible gold lost during drilling remains unanswered.

After analyses of the drill assay results for each of the nine prospects, follow-up drilling in 2007 is recommended on four of them; the Little Squaw, Summit, Eneveloe, and Ratchet Ridge. Highlights of the drill program are:

Table 6. 2006 Drill Hole Summary

Hole #	Drill Angle (deg.)	Total Depth (feet)	Interval (feet)	Intercept (~True Width) (feet)	Au (g/t) ppm	Au (oz/ton)	Comment
Little Squaw Prospect							
LS-1	-45	168	165–168	3	0.60	0.018	Lost entering target
LS-2	-45	310	205–225 incl 210–215	20 5	4.21 10.75	0.123 0.314	Little Squaw vein/re-drill of LS-1
LS-3	-45	200	—	—	—	—	Lost before target
LS-4	-45	210	55–60	5	0.64	0.019	Little Squaw vein
LS-5	-45	380	155–160	5	3.38	0.099	Little Squaw vein
LS-35	-45	210	10–15	5	0.06	0.002	Quartz vein?
LS-36	-45	130	—	—	—	—	Lost to water inflow
Little Squaw East Prospect							
LS-37 (lost)	-45	60	—	—	—	—	Lost to water inflow
LS-38	-45	210	—	—	—	—	No significant gold intercept
LS-39 (lost)	-45	70	—	—	—	—	Lost, mechanical problem
Summit Prospect							
SUM-6	-45	300	130–140	10	0.36	0.011	Main shear
SUM-7	-45	310	45–140 incl 55–75 incl 55–60 180–230	95 20 5 50	0.85 2.63 5.71 0.15	0.025 0.077 0.106 0.004	Main shear Quartz vein Quartz vein 2nd structure
SUM-8	-60	150	70–80 incl 70–75 95–140	10 5 45	9.05 16.15 0.42	0.264 0.472 0.012	25 ft below SUM-7 intercept
SUM-9	-45	175	80–95 incl 80–85	15 5	2.28 5.52	0.067 0.161	Secondary shear?
SUM-10	-45	300	55–100 incl 70–75	45 5	0.69 3.24	0.020 0.095	Main shear
SUM-11	-45	120	—	—	—	—	Lost above target
SUM-12	-45	300	205–300 incl 260–300	95 35	0.28 0.44	0.008 0.013	Ends in main shear
Eneveloe Prospect							
EN-20	-45	140	60–85 incl 60–65	25 5	5.85 25.40	0.171 0.742	Main vein
EN-21	-45	180	115–130 incl 115–120	15 5	2.59 5.86	0.076 0.171	Main vein
EN-22	-60	170	135–140	5	0.78	0.023	Main vein
EN-26	-45	210	95–110	15	0.15	0.004	Small veins
EN-27	-45	210	95–105	10	0.08	0.002	Small veins

Hole #	Drill Angle (deg.)	Total Depth (feet)	Interval (feet)	Intercept (~True Width) (feet)	Au (g/t) ppm	Au (oz/ton)	Comment
Jupiter Prospect							
JUP-23 (lost)	-50	120	40 - 50	10	—	—	No sample return
JUP-24	-50	210	None	—	—	—	Missed vein
JUP-25	-50	210	65– 70	5	3.49	0.102	Main vein
Ratchet Ridge							
RR-32 (lost)	-45	140	None	—	—	—	Abandoned prior to target depth
RR-33	-45	160	15–25 80–85 100–110	10 5 10	0.09 0.28 0.32	0.003 0.008 0.009	Hit old mine cavity Altered mafic volcanic rock
RR-34	-45	170	None	—	—	—	Hole missed target zone
Crystal Prospect							
CRY-30	-45	210	175–210	35	0.20	0.006	Hole ends in mineralization
CRY-31	-45	180	None	—	—	—	Missed vein

Little Squaw and East Little Squaw Prospects

Drilling in 2006 demonstrated the fault-dismembered nature of the Little Squaw veins but confirmed a gold-quartz vein at depth, believed to be the 100 Level vein; drilling was unable to duplicate the gold intercept in the 1982 hole LS3 on the inferred south vein.

In 2006 seven reverse-circulation holes at four sites along 600 feet strike-length on the Little Squaw structure were drilled to explore the known 100 Level vein and a suspected south vein(s). LS-2 is a re-drill of LS-1, which was lost due to drilling problems before reaching the vein. LS-2 encountered drilling problems passing through the vein, and sample loss occurred. Geologic reconstruction of fault movement shows that auriferous intercepts in holes LS-4, LS-2, and in 1982 drill hole LS45N correlate to the 100 Level vein. Hole LS-4 cut the vein but reported only a single 5-foot interval of 0.019 oz Au/ton; water and lost circulation were encountered in the vein and gold loss is suspected. The 1982 hole LS45N had reported a 10-foot intercept of 0.46 oz Au/ton in the 100 Level vein.

The 1982 hole LS3 reportedly cut the south vein with 0.18 oz Au/ton over 70 feet and re-assay of sample splits for this hole in 2004 verified the results. In comparison 2006 hole LS-5 also cut the south vein with only a 5-foot interval of 0.099 oz Au/ton; the discrepancy can not be resolved with the data available. Hole LS-35 entered the south vein with the last few feet of the available drill rod, unable to return a reliable sample. Hole LS-36 was targeted on the vein but also failed to reach it.

It is apparent from the combined 1982 and 2006 drill data that the vein on the 100 Level may be mineralized over a longer strike length and depth than previously known. Additionally, at least some high-grade mineralization occurs on the south vein. Three holes were drilled in search of the eastern extension of the Little Squaw vein system about 600 feet east of the mine workings. Two of the holes were lost to difficult drilling conditions and mechanical problems, and a third was completed to depth without hitting any gold veins.

Kiska Prospect

In 2006 it was found that gold could be readily panned from soil along a projected 1,700-foot strike of a buried fault structure. A subsequent soil sample grid demonstrated a strong linear gold anomaly that was followed by drilling seven holes totaling 1,435 feet. Holes were drilled from five sites along the length of the anomaly, including five holes that ended in low-grade gold mineralization. Of the seven holes, four did not reach their intended depth. Anomalous gold values were present in most of the drill holes, but assays were quite low.

In a test trench, rock chip sample assays ranged from 1.25 to 422.00 ppm gold over scattered narrow intervals. Apparently the gold in the wide zone of soil anomalies is caused by small, irregular and intermittent quartz veins and lenses and zones of fault gouge with gold.

Jupiter Prospect

Jupiter is a gold-bearing quartz vein subparallel to the Eneveloe vein. Three holes were drilled in 2006 to target the talus-covered projection of the vein. Of the three holes, only one reached its target and reported 0.102 oz Au/ton. The Jupiter vein remains open to exploration to the west.

Eneveloe Prospect

Eneveloe is a large gold-bearing quartz vein that is exposed as a 15- to 20-foot wide quartz vein outcrop at the present site of the 100 Level adit. In 2006, five holes were drilled from two sites about 300 feet apart. There was insufficient drill rod to intercept the previously reported ore-shoot located between the two sites.

The site used in 2006 for holes ENV-20, -21, & -22 near the 100 Level adit was the same as that used for the drilling in 1981. Drill hole ENV-20 largely confirms the 1981 drill results, with intervals between 60 feet to 85 feet averaging 0.171 oz Au/ton and within which the interval 60 to 65 feet assayed 0.742 oz Au/ton. Hole ENV-21, angled to the east of the others, also reported the quartz vein zone, albeit thinner and lower grade, averaging 0.076 oz Au/ton over 15 feet. Hole ENV-22 was stopped short of its target. Based on the combined data, mineralization on the 100 Level vein system between the 100 and 200 Levels appears to extend west farther than previously thought.

Holes ENV-26 and -27 were drilled from a site about 150 vertical feet above the 100 Level adit. Neither hole showed any significant intercepts, suggesting either the “ore” shoot dissipates to the east of the drill site, or the zone of quartz veining has been offset to the north, as suggested by the anomalous gold in soil values in that area.

Summit Prospect

Summit veins follow a prominent shear zone that contains multiple veins, lenses of gold-bearing quartz, and a prominent ore-shoot. In 2006, seven reverse-circulation holes were drilled from four sites, two of which had been drilled in 1982. Hole SUM-6 near the 200 Level failed to duplicate a 1982 drill assay of 1.00 oz Au/ton over five feet and 0.34 oz Au/ton over two feet. Drilling near the 100 Level, about 70 feet east along strike from the underground exposure of the known ore shoot, confirmed earlier reports of gold intercepts. Multiple gram intercepts, up to 0.457 oz Au/ton, were reported in SUM-7, -8, and -9, indicating the ore shoot extends east. Hole 10 from a third site about 450 feet to the west reported a narrower and lower grade intercept. Farther to the west SUM-12 encountered only barren quartz but unexpectedly bottomed in a 95-foot section of low-grade (0.28 ppm)

gold mineralization. Soil sampling to the west of drill hole SUM-12 indicates this auriferous zone extends laterally to subcrop in Summit Gulch.

Ratchet Ridge Prospect

The 2006 Ratchet Ridge drilling revealed (RR-33) that the intense magnetic anomalies over acidic seeps are due to concentrations of magnetic pyrrhotite, arsenopyrite and pyrite in hydrothermally altered phyllite and carbonate-altered mafic sills(?); assays report low but anomalous levels of gold. RR-32 also encountered the pyrrhotite concentrations but the hole failed due to icing of the hammer.

Uranus Prospect

The two holes drilled on the Uranus were designed to probe for downward extensions of two subparallel gold-bearing quartz veins exposed in old prospect pits. The holes did not intersect the veins and fault displacement is suspected.

Crystal Prospect

The Crystal vein is very similar to the Little Squaw 100 Level vein. In 2006, two reverse-circulation drill holes were attempted; hole CRY-30 was to undercut the old workings and hole CRY-31 was targeted to undercut a quartz vein exposed by trenching about 200 feet to the east. Neither drill hole intercepted their intended targets; apparently the drill holes undercut a low-angle fault displacement of the quartz veins, probably to be found to the north. The last 35 feet of drill hole CRY-30, however, intersected altered carbonaceous schist and anomalous gold, similar to what was drilled in Summit drill hole SUM-12.

RECOMMENDATIONS

Much of the Chandalar district is hidden by surficial cover and has received only brief reconnaissance, mostly in the early 1900s. Mesothermal gold-quartz veins were evaluated in 2006 and veins at the Eneveloe, Little Squaw and Summit are recommended for further exploration. Several previously unrecognized mineral occurrences and styles of mineralization were identified in 2006. These include Au-As values in altered meta-volcanic rock (Ratchet Ridge and Northern Lights prospects) and meta-sediment hosted disseminated gold (Aurora Gulch, Summit, Crystal, Mikado, Kelty). Mineral evaluation and improved geological mapping should continue throughout the district with emphasis on evaluating large tonnage, bulk-minable targets.

Soil and stream sediment sampling continue to be effective tools provided that close attention is paid to the surficial sediments being sampled. Local occurrences of mineralization generally manifest well in the geochemical data. However, the realistic season for soil sampling is very short, only about six to nine weeks, beginning in late July and continuing through freeze-up, generally about mid-September. Geochemical sampling to-date is highly targeted toward known or suspected mineralized prospects. Sampling needs to be expanded to a regional coverage, statistically analyzed, and evaluated relative to geologic mapping.

Ground based magnetometer surveys will differentiate quartz veins enveloped in altered zones at some prospects, such as the Pallasgreen and the Ratchet Ridge. It proved marginally useful at the Rock Glacier but results may be refined by using a tighter grid than was used in 2006. Magnetics failed to be useful at the Little Squaw prospect. Magnetometer reconnaissance profiles and evaluation grids should be undertaken at other

prospects considered for drill testing. In the future an automated base-station recording unit should be used to clean the data of diurnal drift variances. Airborne magnetic and EM survey should be considered by the 2008 season. EM may be useful in identifying altered schist zones associated with gold mineralization.

Excavator trenching as a pre-drilling evaluation technique performed well in 2006 and needs to be expanded. A trenching program will likely not be possible until about mid- to late-July when adequate thaw has occurred. A recommended trench program is given in Table 7.

Drilling in 2007 should attempt to further delineate the resource potential at the more promising sites identified in the 2006 program. 2006 drill testing of known veins indicated potentially significant gold mineralization on the100 Level vein at the Little Squaw and perhaps also the Little Squaw South vein, the Eneveloe 100 Level vein, and at least a short portion of the Summit 100 Level vein. No drilling was done at the Mikado Mine in 2006 but the mineralized zone likely extends below the old workings. Low grade but possibly significant gold occurs in several other deposit forms identified during surface exploration; drilling is recommended on the west of the Summit prospect intercepted a wide zone of disseminated low-grade gold. Drilling to-date is insufficient to define resource potential with any level of confidence. Further drilling is necessary to assess the development potential of all prospects. Table 8 summarizes proposed drill holes for the 2007 program.

Table 7. Proposed Exploratory Trench Schedule for 2007

PROSPECT	EASTING	NORTHING	FEET	ORIENT'N	EST DAYS*	TARGET
Aurora Gulch	Pending additional mapping		300	N 20°E	2.5	Expose *in situ* gold values in dolomite and carb schist, requires 1,000 ft access
Big Creek Bowl	449265	7491500	100	N 20°E	0.75	Expose inferred vein by trenching adjacent to road
	449325	7491630	50	N 20°E		
Bonanza	448530	7492370	30	N 20°E	0.5	Open vein west of previous exposures
Chandalar	Pending magnetic survey		150	unknown	1.5	Locate vein in place, determine structure
Chiga	449010	7491460	150	N 10°E	1.0	Expose source of Au, As, Sb soil anomalies; a magnetic profile line should be done prior
Enevelbe	448520	7492625	75	N 20°E	0.5	Expose 100 Lv vein on middle switchback
	448480	7492645	50	N 20°E	0.5	Expose 100 Lv vein on lower switch back
	448225	7492825	100	N 20°E	0.5	Determine if veins underlie Robbins Gulch; do magnetic profile prior
Kiska	448850	7491245	150	N 10°E	0.5	Expose source of Au-As anomalies on Line 0
	448990	7491245	150	N 10°E	0.5	Expose source of Au-As anomalies near old pits
	448760	7491310	100	N 10°E	1.0	Expose source of Au-As anomalies on Line 100W
	448650	7491350	125	N 10°E	1.0	Expose source of Au-As anomalies on Line 200W
Jackpot	449450	7493820	25	N 10°E	0.5	Open vein below caved adit
Little Squaw	449140	7493495	100	N 10°E	1.5	Determine source of auriferous quartz float with VG
	449695	7493465	125	N	0.5	Determine if vein underlies old caved adit
McLellan	451055	7492610	150	N 10°E	1.0	Expose source of Sb-Au soil anomalies in greenstone/phyllite area; do magnetic profile
	450865	7492530	50	N 10°E	0.5	Open vein near soil sample 3318
Mikado	Pending mapping		50 X 3	N 25°E	1.5	Test gold in altered hanging wall, 3 sites
Pioneer	451495	7493545	75	N 25°E	0.75	Extend 2006 trench to vein w/ 1.5 opt Au
Pallasgreen	452600	7494240	100	N 20°E	0.5	Trench both targets from magnetic survey
	Pending magnetic survey		150	N 20°E	1.0	
Ratchet Ridge	Pending magnetic survey		250	–	1.5	Expose magnetic sulfide-bearing altered mafic sill
Rock Glacier	449300	7492330	150	N 20°E	1.25	Expose inferred veins on Soil Line 10
Summit	448875	7491950	150	N 10°E	1.5	Trench soil anomaly 500 ft west of drill hole S12
Uranus	450575	7492400	50	N 20°E	0.5	Expose principal vein east and west of outcrop
	450475	7492425	50	N 20°E	0.5	
Contingency			400		5.0	Expose possible 2007 discoveries
TOTAL			**3,505**		**28.75**	

* Time estimate per site is based on excavator operator, geologist, and geo. assistant; estimate includes reclamation. Some sites will additionally require use of small dozer for final reclamation. Time estimate does not include daily relocation of excavator if shared with other field operations, or the construction of access roads to reach the sites.

Table 8. Proposed Drilling Schedule for 2007		
PROSPECT	**T.D. feet**	**TARGET**
Eneveloe	250	Intersect 100 Lv vein at the 200 Lv elevation
	250	Intersect 100 Lv vein and inferred side vein from 200 Lv site
	350	As above but at a steep declination to intercept 100 Level vein 100 ft deeper
Little Squaw	350	Intersect both the south vein and the 100 Lv vein
Mikado	450	Intersect main and north shears below old workings
	450	As above but to east, test also for hanging wall gold
Pallasgreen	250	Undercut vein in prospect exposure
	350	Intersect veins 300 ft east of outcrop
Ratchet	300	Intersect altered mafic sill at site determined from magnetic grid
Summit	450	Gold mineralization in carbonaceous schist near hole 12
	250	As above but 450 ft west
	200	Vein below 100 Level
Contingency	600	Two holes to be assigned pending trench results
TOTAL	4,500	

Future consideration of the type of drill equipment to be used must consider:

- 1) the coarse grain (>1 mm) nature of the gold in composite quartz veins,
- 2) the occurrence of open, water-filled, or ice-filled voids found near or within vein systems,
- 3) permafrost that extends to 350-450 foot depth,
- 4) high-grade gold values that occur in frozen pulverized clay-quartz lenses that will melt and disintegrate during drilling, e.g., Mikado, Pioneer, Summit
- 5) numerous yard-plus widths of frozen sericite, clay, and pulverized rock associated with the shear zones that are subject to thaw and failure of the hole wall, and
- 6) water availability in late summer, if a dry summer, is very limited at elevations above 2500 feet. In September, 2004, no water was seen above the Spring Creek Mill site on the north and Tobin Creek airstrip on the south of the district. Big Squaw Creek was also dry. Springs on the Chiga and Rock Glacier prospects could be developed as water sources.

Several drill holes in 2006 failed to reach their targets due to fault displacements not readily recognizable on the surface. Prior to future drilling, the trench program should be completed for a preliminary geological assessment of most target areas.

Previously reported placer gold values in the Little Squaw west bench were partly substantiated by trenching at several sites in 2006. Based on the Company data from 1997, a substantial placer resource appears to be present in the bench, perhaps several hundred thousand ounces occurring in stacked high grade fluvial pay streaks within the glacial till and glaciofluvial sediment. Previous exploration results report grade of the auriferous gravels to be sufficient to make exploitation feasible despite higher anticipated costs at the remote location. A 90-hole drill exploration placer program is recommended and described separate from this report.

The Chandalar claim block of LSGMC lies along the broad east-west mineralized schist belt flanking the south of the Brooks Range. Numerous placer gold occurrences are known in the region extending westward toward the Slate Creek and Nolan camps. Gold has also been reported in creeks between lower Big Creek and the Middle Fork of the Chandalar River, 3 to 10 miles south of the existing Company property. The Company should begin regional reconnaissance and attendant baseline sampling, specifically targeted to the black slate and phyllite, and meta-igneous rocks that correlate to Chandalar. The recent recognition of meta-sediment hosted low-grade gold, but with large-tonnage potential, mineralization at Chandalar should be evaluated in the general region.

There remains no accurate topographic control in the district; topographic mapping needs to be completed as soon as possible. The numerous 1:4,000-scale prospects map sheets will then need to be converted to the topographic data base.

QUALIFICATION STATEMENT -- JAMES C. BARKER

The undersigned hereby certifies that:

I am an independent consulting geologist with an office located at the following address:

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I have prepared the report "Chandalar Mining District: A Report of Findings and Recommendations, March 15, 2007" for Little Squaw Gold Mining Company. I am familiar with the property and have conducted these investigations as reported. Sample results reported herein were collected under my supervision.

My qualifications:

- Since 1991 I have been certified by the American Institute of Professional Geologists as a Professional Geologist (AIPG # 8205).
- Since 1991 I have been licensed by the State of Alaska as a Professional Geologist (license # G-262).
- Since 1966 I have been employed in the mining, metallurgical and petroleum industries.
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- I hold a B.S. Degree of Mineral Engineering from University of Alaska.
- Between 1975 and 1991, as Supervisor of the Fairbanks Office of the U.S. Bureau of Mines, I conducted studies throughout Alaska and authored numerous reports and publications describing Alaskan mineral deposits. Several of these studies concerned deposits in the eastern Brooks Range in the vicinity of the Chandalar Mining District.
- I am a member of the Society of Economic Geology (membership #51047).
- I am a member of the B.C. and Yukon Chamber of Mines
- Since 1975 I have been a member of the Alaska Miners Association and have served on the Board of Directors and as Statewide Vice-President.

I have had no prior interest in nor have I ever held stock in the Little Squaw Gold Mining Co., or ownership in any of the Chandalar properties. I am not employed by Little Squaw Gold Mining Co. other than on a contractual basis as a geological consultant.

I am not aware of any material fact or material change with respect to the subject matter of this Report that the omission to disclose would make the Report misleading.

I consent to the filing of this Report with any stock exchange or other regulatory authority and the publication or public release by them or as authorized by Little Squaw Gold Mining Co.

Signed_____ March 15, 2007

James C. Barker, Consulting Geologist