

# **GEOLOGICAL AND GEOCHEMICAL REPORT**

IN SUPPORT OF

**2016 Exploration Program funded under the  
Yukon Mineral Exploration Program**

**KELLI CLAIM GROUP**

**Whitehorse Mining Division**

NTS: 115G/12 61°33' N Lat., 139°37' W Long.

Report by: G. Gutrath, Geologist, P.Eng.

Date: January 30, 2017

## INTRODUCTION

This report is written on behalf of the claim owners listed in *Appendix F*.

The time spent on the property in 2016 and the cost of the program is outlined in *Appendix E*.

The writer carried out geological mapping and geochemical soil and silt sampling in 2011, 2013, 2014 and 2015. This report summarizes the general property information that is given in much greater detail in the 2012 Geological Report. This report is based on the geological mapping, sampling and geochemical soil and silt sampling field work carried out in 2016.

In 2016 the exploration was carried out under a Class 1 Mining Land Use Program.

## ACKNOWLEDGEMENTS

The writer was assisted in the field by Mr. Fred Erler, one of the claim owners. Mr. Erler is a member of BC Search and Rescue, first aid qualified and a keen mountain climber.

Mr. Lorne Smith, a long-time resident of Haines Junction organized access to the claim group from Highway 1. He is an outstanding master mechanic, Argo and D8 bulldozer operator. In addition, he is very familiar with the history of the Kelli Claim Group as he worked on the claims with the late Larry Tremblay. He is the owner of the Quartz Claims on Swede Johnson Creek that is reported to have very similar geology to the Kelli Claim Group.

Mr. Dennis Dickson of Burwash Landing has been very helpful in providing the rental of his 8 wheel all terrain Argo for mobilization and demobilization to the Kelli Claim Group.

Mrs. Louise 'Toots' Bouvier is one of the claim owners and a long-time resident of Destruction Bay. She provides one of the ATVs used for the exploration program and stores it at her shop in Destruction Bay. In addition, she is the owner of the camp and the D8 bulldozer on the property.

In Whitehorse my good friends, Louise and Wayne Lerner, provide lodging for Fred Erler and the writer. All the exploration equipment, truck, trailers and ATV are stored and maintained by Wayne who is a master mechanic and has a large shop on Jasper Avenue. The Lerner's have also donated substantial pieces of exploration and camp equipment for use at the Kelli Claim Group.

A special thanks to Doug Eaton, principal of Archer Cathro & Associates (1981) Ltd., for providing the Kelli Claim Group project with the complete airborne LIDAR Survey of the Vault Claim Group. The Vault Claims surround the south one-half of the Kelli Claim Group. This survey provides detailed topographic data that is very helpful in plotting the geochemical and geological data from the Upper Canyon to beyond the Forks (*Map 2*).

Kathie Jaworski Mapping and GIS took the LIDAR data and integrated it into the existing government topographic data to provide a comprehensive map on a scale of 1:20,000 of the Kelli Claim Group and adjoining area (*Map 4*). In addition, Ms. Jaworski prepared maps on scales of 1:2000 and 1:4000 and plotted the 2016 GPS Waypoints on these maps.

The Yukon Mineral Exploration Program has been very helpful in funding 50% of the exploration costs in 2014, 2015 and 2016. Many thanks to Mr. Derek Torgerson, Manager of the Yukon Mineral Exploration Program for his guidance and patience.

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**List of Maps (in pocket):**

Map 1	1:500	2014, 2015 and 2016 Kelli Claim Group Geology and Geochemical Map
Map 2	1:1000	2016 Exploration Program Geochemical Silt and Soil Sampling Kelli Claim Group
Map 3	1:4000	Geological Mapping and Geochemical Sampling Kelli Claim Group: Kristy, Grace and Toots Claims
Map 4	1:20000	Vault and Kelli Claim Groups Topographic Contours from LINDAR Survey

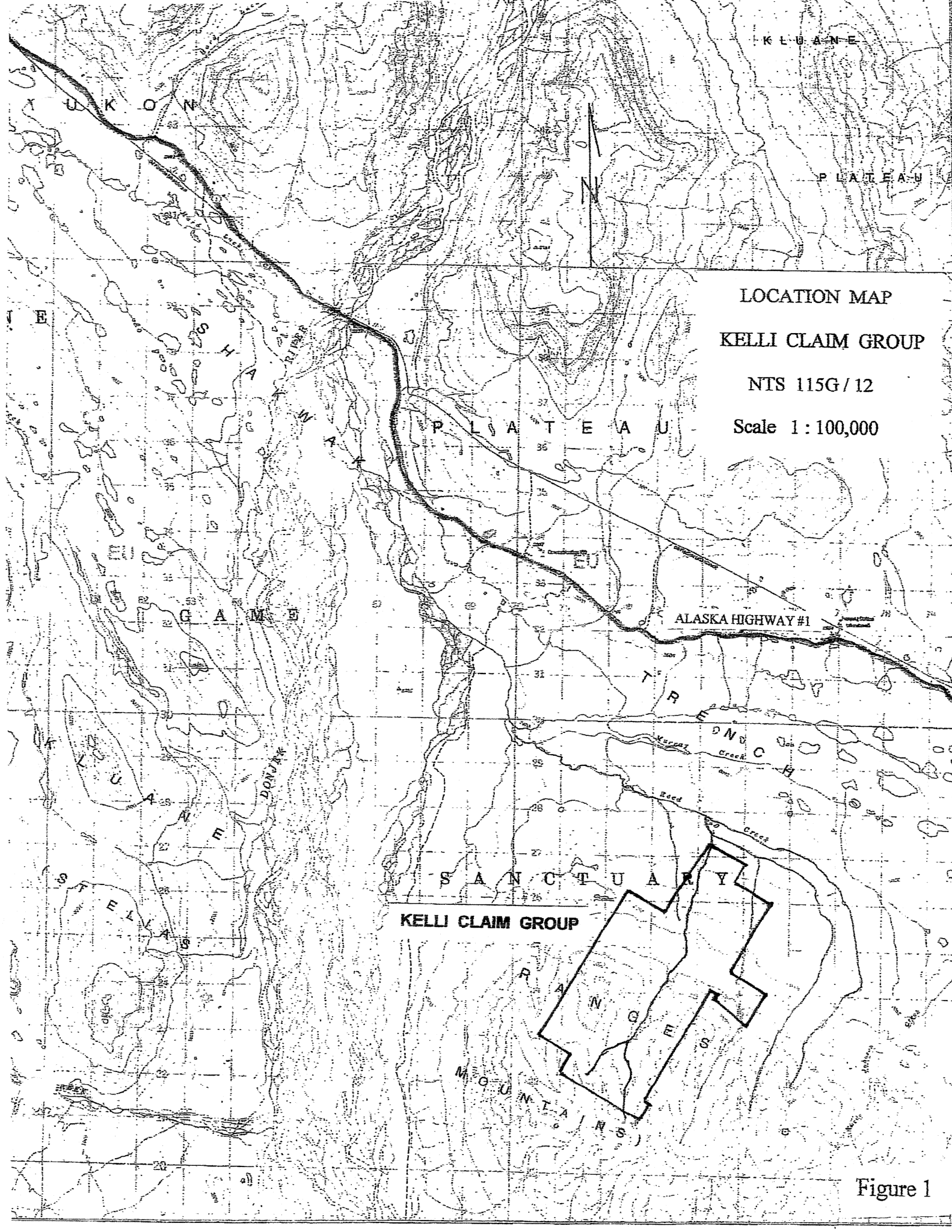
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Figure 1	Location Map	1:100,000
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Figure 4	Access Map	1:30,000

**Photographs in Report:**

Photo 1	2016 bulldozer trench on west side of Reed-Kelli Creek at outlet of Lower Canyon
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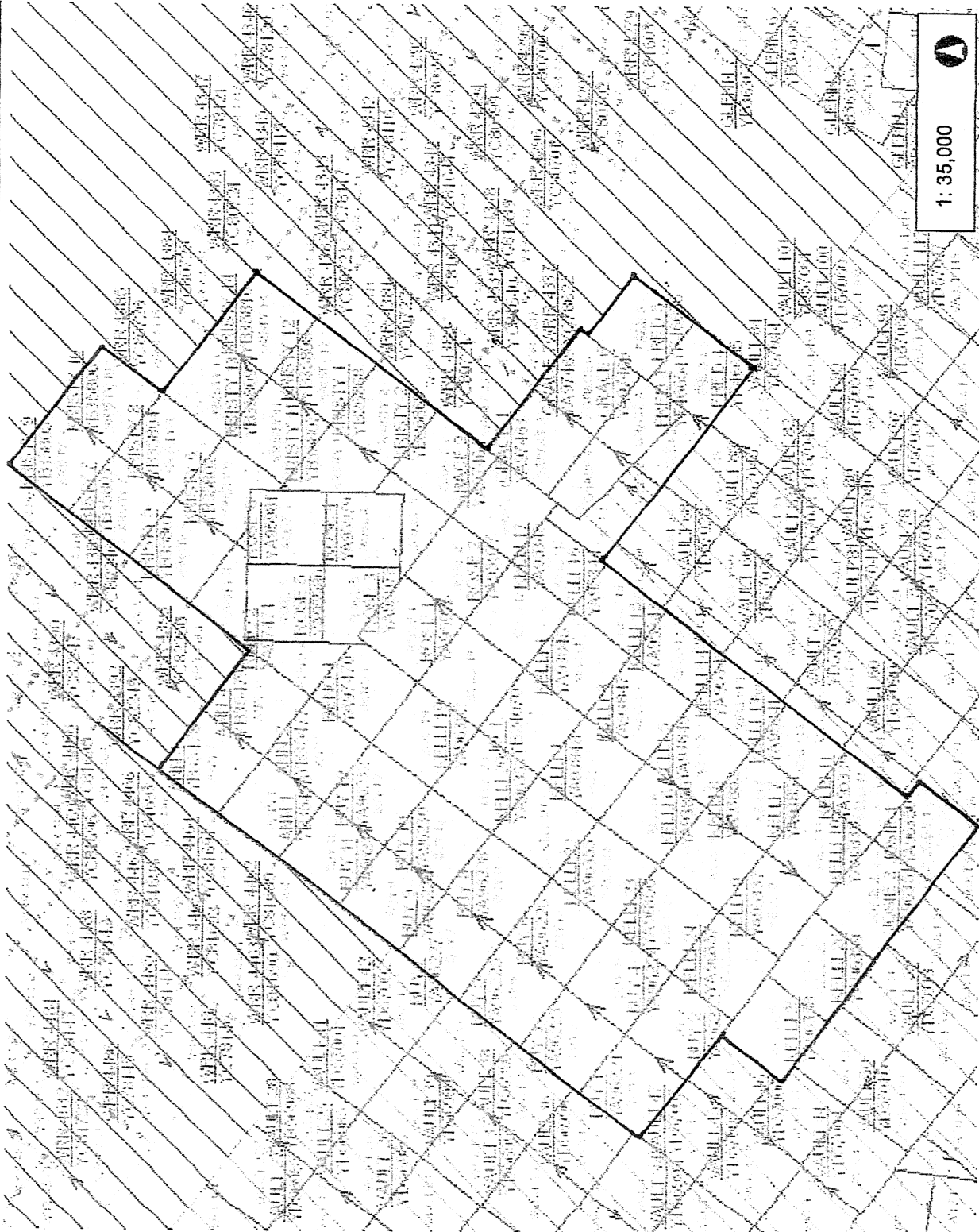
- Photo 4    Sample site 1763
- Photo 5    Sample site 1775
- Photo 6    Bulldozer reclaiming trenched material



LOCATION MAP  
KELLI CLAIM GROUP  
NTS 115G/12  
Scale 1:100,000

**KELLI CLAIM GROUP**

Figure 1



**Legend**

- New Quartz Claims
- Quartz Staking Direction
- Quartz Claims (50K)
- Active and Pending
- Expired
- Quartz Leases (50K)
- Adjoin Quartz
- Quartz Mining Land Use Perm
- Class 3
- Class 4
- Quartz Mining License
- Coal Exploration License
- Active and Pending
- Expired
- Coal Mining Lease
- Active and Pending
- Expired
- Surveyed Mineral Claims
- Current Class 1 Notifications
- Valid
- In Review
- Pending
- Cancelled
- Expired
- Rejected
- Closed
- Areas defined by OIC

1: 35,000

1.8 Kilometers

0.89

0

1.8  
Yukon Albers  
Produced from: Yukon Mining Viewer

This map is a user generated static output from an internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.  
Date Printed: 02-Mar-2016

**Notes**

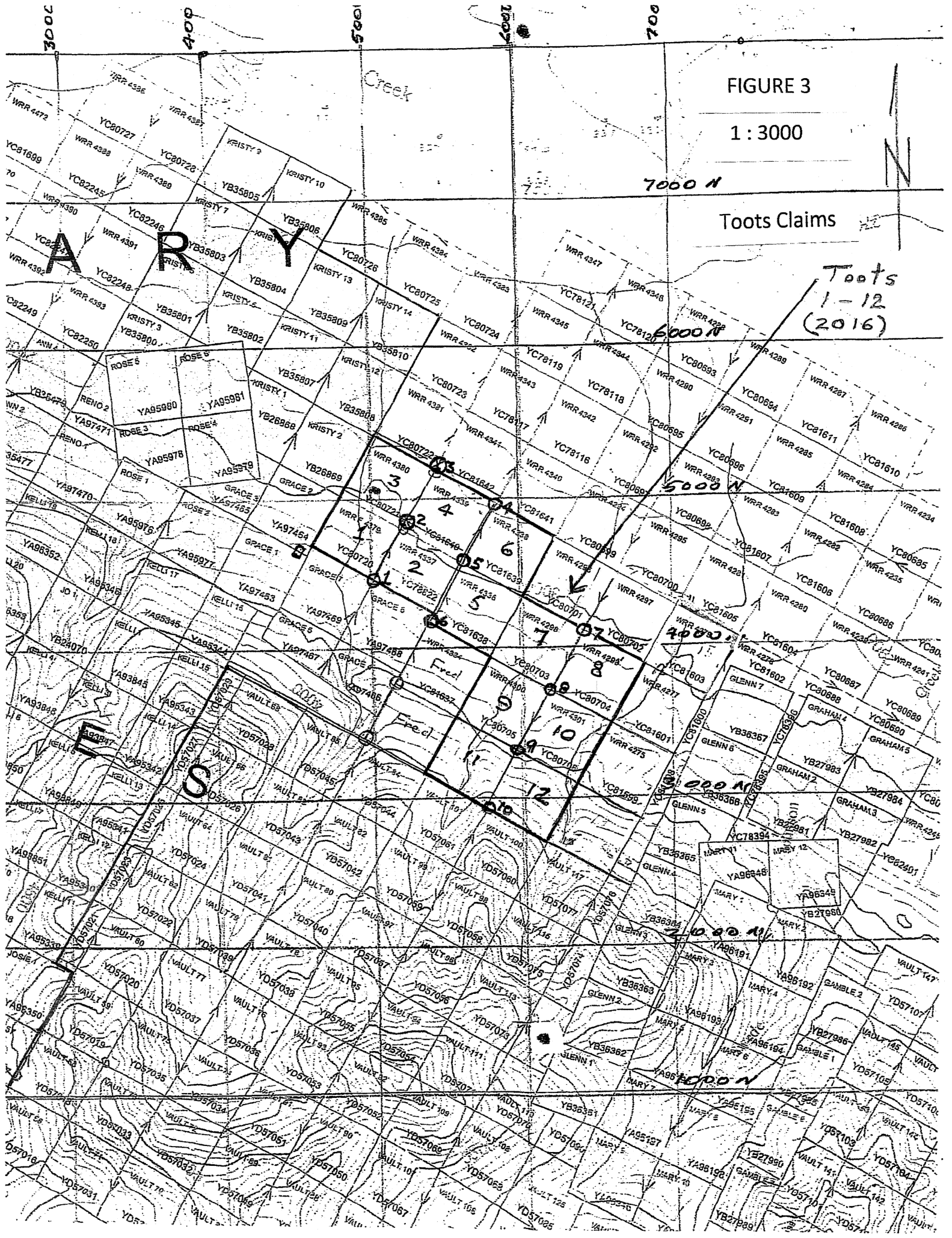
**FIGURE 2**

FIGURE 3

1 : 3000

Toots Claims

Toots  
1-12  
(2016)



## LOCATION

The Kelli Claim Group is located on the northwest facing slope of the Kluane Range and is within the Kluane Game Sanctuary. The centre of the Kelli Claim Group is approximately UTM Coordinate 682400 N 573000 E, Zone 7, NAD 83 located on NTS Map 115/12.

## PHYSIOGRAPHY

The Kelli Claim Group is centered on a north-northwesterly flowing tributary of Reed Creek (Reed-Kelli Creek) that joins the westerly flowing Reed Creek proper on the south side of Shakwak Trench. The south boundary of the Kelli Claim Group is at an elevation of 4,500 feet (1,372 m) and the north boundary is at an elevation of 2,600 feet (792 m).

The primary focus of historic mineral exploration and placer gold mining has been within the steep 'V' walled canyon referred to as the Lower, Middle and Upper Canyon that extend over a distance of 1000 m and over an elevation interval of 150 m.

Vegetation is predominantly stunted black spruce in areas of muskeg (permafrost). Tall, large diameter spruce border the thawed outwash channel. The Canyon area of Reed-Kelli Creek is bordered by thick alder as well as the adjoining slopes to an elevation of 4,000 feet (1,220 m). At an elevation above 5,000 feet (1,524 m) open grassland and willow predominate representing an alpine environment.

## CLIMATE

The Kelli Claim Group is located on the east flank of the St. Elias Mountains and in theory is protected from direct coastal weather. However, weather is funneled from the coast along the low valleys that follow the Denali Fault/Shakwak Trench. As a result, there is considerable yearly variation in summer rainfall. Both the summer of 2011 and starting in July, 2013 the rainfall was abnormally high. In 2014, during the August exploration program weather conditions were ideal. There were only a few rain showers and the creek levels were low.

The range of annual temperature in the Kluane Lake area is  $-20^{\circ}\text{C}$  in December, the coldest month to  $+13^{\circ}\text{C}$  in July, the warmest month of the year.

The average annual rainfall is 20 cm and snowfall is 18 cm. The Reed-Kelli Creek area is at a higher elevation and will have colder winter weather and greater accumulated snowfall and rain.

## ACCESS

The turnoff from the Alaska Highway to the winter heavy equipment trail/summer ATV trail is at UTM coordinate 580651 E 6830392 N, 340 km west of Whitehorse or 170 km from Haines Junction. The trail crosses 10 km of the Shakwak Trench through continuous swamp, skirting small lakes and crossing three streams reaching the Reed-Kelli Creek gravel fan at approximately 3 km from the campsite.

Helicopter service is available from Haines Junction with a suitable staging area on the Alaska Highway at Mile 1118. There is a good helicopter pad at the campsite.

In 2016 access from the Alaska Highway was provided by an 8 wheel Argo off-road vehicle rented from Mr. Denis Dixon of Burwash Landing. Mr. Lloyd Smith operated the Argo, carrying approximately 300 kilos of supplies and navigating the Shakwak Swamp and the washed out road to the Kelli Camp with no problems. The road from the Reed-Kelli Creek fan to the camp was built in the 1990s and was in good condition in 2011. However, in 2013 the road was 90% destroyed by a flash flood making it very slow and difficult to gain access to the Kelli Camp. On site transportation was provided by two ATVs that followed the Argo into the property.

In 2016 the bridges built in 2015 and the upgraded ATV trail following the outwash fan to the camp were all in good condition. The access trail from Highway 1 to the Kelli Camp is shown on *Figure 3*.

## HISTORY

The Reed-Kelli Creek has had a long history of placer gold mining starting in the early 1900s and again in the period 1935 to 1939. The more recent mining was carried out by Dublin Gulch Placers under the onsite direction of Darrel Duensing between 1983 and 1988. Overall production from the creek gravels is very uncertain but is probably in the range of 3,000 to 5,000 oz. of gold.

Larry Tremblay, project manager and claim owner, carried out an extensive trenching program in the Lower and Middle Canyons. In 2004 Mr. Tremblay and associates drilled five BQ holes in the Lower Canyon.

Some additional historical information was provided by Mr. Lorne Smith of Haines Junction, a long-time resident of the area. Mr. Smith has quartz claims on Swede Johnson Creek 4 km to the southwest of Reed-Kelli Creek. In 2003 – 2004 Mr. Smith carried out some bulk placer tests between the Lower Canyon and campsite and found areas of good placer gold values. In 2004 his equipment was used to move the drill. He was very helpful in confirming the location of the 2004 drill holes. In addition, he stated that when Larry Tremblay first located the property there were numerous old placer workings and possibly underground workings. Mr. Smith referred to the location of a ladder at WP66 573393 E 6824638 N on the east side of the creek that went up the edge of the large outcrop and led to underground mine workings 7 m to 10 m above the level of the creek gravels.



The History section pages 3, 4 and 5 in the writer's 2012 Report gives a more detailed description of the early work done on the Reed-Kelli Claim Group area.

## REGIONAL GEOLOGY

The Kluane Range forms the northeast margin of the St. Elias Mountains that are predominantly underlain by a thick sequence of mainly layered Paleozoic strata that have been highly altered and deformed. The property is bordered to the north by the Denali Fault that occupies the Shakwak Trench. To the southwest of the Shakwak Trench in the Quill Creek – Donjak River area the strata has been intruded by granitic to ultramafic bodies. The Quill Creek ultramafic hosts a nickel-copper deposit with PGE values.

In the Kelli Claim Group area of the Kluane Range the predominant rocks are Permian Pennsylvanian andesites covered by shales and thin bedded limestone. These units are repeated by a complex series of faults. Oligocene dikes in the area have been sheared indicating that the faulting is Tertiary or younger (T. Bremner, 1990).

The Denali Fault has formed the northeast facing slope of the front range of the St. Elias Mountains in the Kelli Claim Group area and has influenced the emplacement of the sub-parallel intrusive bodies in the Lower to Upper Canyon of Reed-Kelli Creek. These intrusive bodies are related to a 'structural kink' in the stream drainage both to the west and east of Reed-Kelli Creek over a distance of 8 km and subparallels the trend of the Denali Fault. This "kink" is an important reference point for the start of placer gold deposits in these creeks.

## PROPERTY GEOLOGY

### General

The primary objective of the 2016 program was to continue the geological mapping on a scale of 1:500 through the Lower Canyon and sample prospective mineralized zones. The division of the geology into Statigraphy and Intrusive units was outlined in the 2012 and 2013 reports and supported by the work done by Dr. Gettsinger and Mr. Bremner.

### Statigraphy

The layered rocks exposed from the camp area upstream to the Middle Canyon (Geology Map 1 1:1000, 2013) are divided into four units designated **pc** (phyllitic carbonate), **gs** (greenstone/meta volcanic), **gs (fp)** (subvolcanic greenstone and/or an intrusive feldspar porphyry), and **bgpl** (black graphitic phyllite with interbedded limestone). These units have been interpreted as being Pennsylvanian to Permian in age and part of the Skolai Group. The writer divided the **gs** unit into **gs** and **gs(fp)** to differentiate the marked contrast between the two units:

- gs** dark brown adesite often foliated to a chloritic schist, highly fractured with pyrite content from 1% to 10%, pyrrhotite trace to 1% and magnetite 1%. Widely spaced, flat pyritic quartz veins of variable width cut across the unit.



**gs(fp)** grey, possibly subvolcanic fine-grained to porphyritic andesite or intrusive with blocky, coarse fracturing with less than 1% pyrite.

The **bgpl** unit is the principal unit downstream from the Lower Canyon to the campsite.

### **Intrusive Rocks**

The layered rocks are intruded by dikes and sills of Oligocene to Miocene age (date of 23 Ma, ref. Bremner, 1991). Both Getsinger and Bremner agree that this intrusive is a feldspar hornblende porphyry. The writer mapped the intrusives as two separate rock types.

- dd** light orange weathering dacite dike, fine grained to aphanitic with an absence of porphyritic texture. In the fresh, fine grained dacite crystalline hornblende “blades” make up 1% to 2% of the ground mass
- fp** light grey subhedral medium grained feldspar phenocrysts in an aphanitic to fine grained feldspar rich ground mass.

### **2016 CLAIM STAKING**

The silt sampling carried out in 2015 located a number of gold anomalous samples on the east side of the Kelli Claim Group near Reed-Allen Creek. One of the samples was just to the north of the Grace 7 claim on open ground and analyzed 592 ppb gold. There were also a number of other anomalous gold samples in the same general area. As a result of this sampling the Toots 1 to 12 claims were staked adjoining the north side of the Kelli Claim and the Vault Claim Groups. Silt samples were collected from a number of small streams draining the area to the north. The claims cover the projected extension of Structure 1 from the Lower Canyon on Reed-Kelli Creek to the east through Toots Claim 10. They also cover the possible projected strike of the feldspar porphyry dike that outcrops in Reed-Allen Creek. Bill Allen is hand mining placer gold from the creek gravels at the base of this dike.

The Grace-Toots claims are plotted on *Map 3*, 1:4000 and have been included in the Kelli Claim Group listed under *Appendix F*.

### **2016 PLACER EXPLORATION PROGRAM**

The placer exploration program sampled a short section of the bedrock gravel interface exposed in bulldozer trench 1 and 2. A small sluice box was used to process the samples on site. The results from the Right Limit were positive for potential placer gold reserves. It is recommended that the sampling program be continued in 2017.

The costs of the 2016 placer sampling were excluded from the overall costs of the 2016 hard rock exploration program.



PHOTO 1: 2015 bulldozer trench /sample tags on far left / 2016 trench extension and ATV

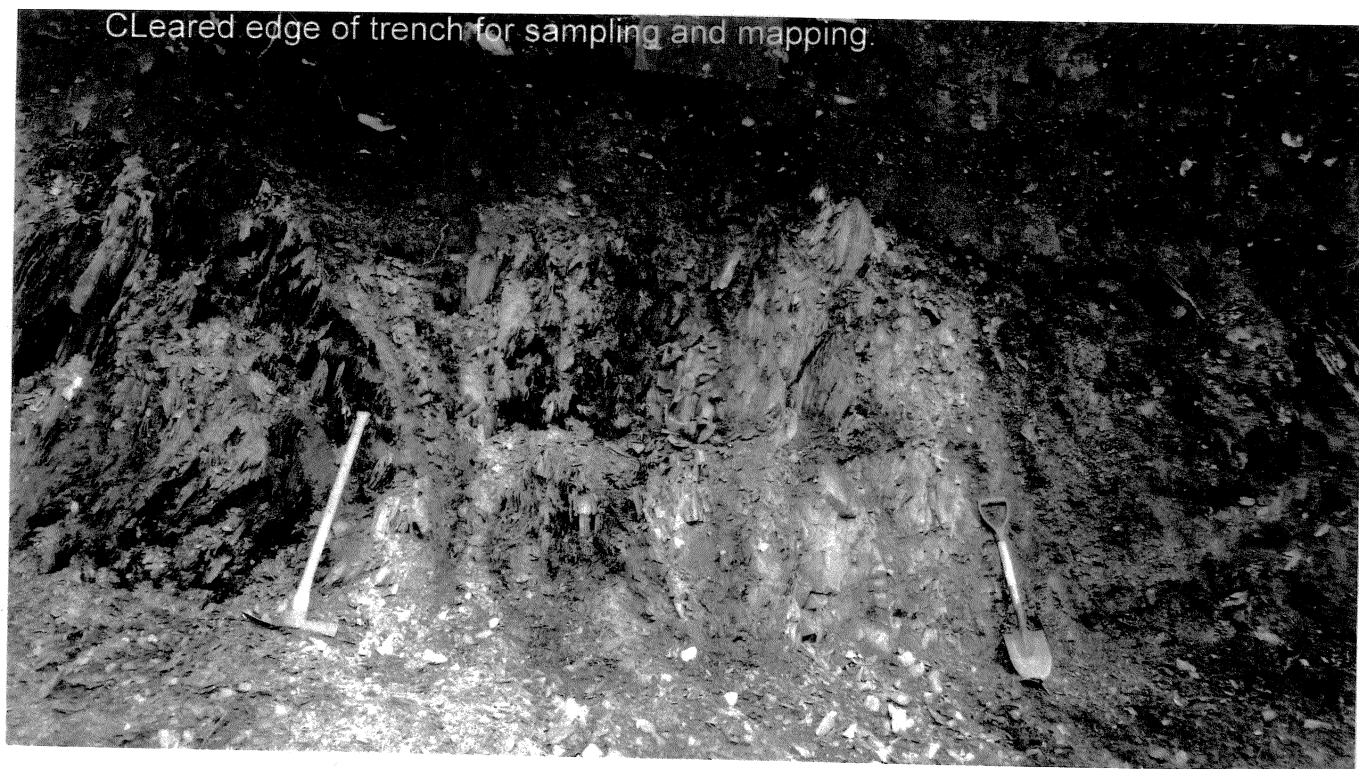


PHOTO 2: sample 1767 (281 ppb gold) 1.5 m channel sample. Increase in pale yellow brown sericite schist. Thin oxidized quartz veining, pyrite 2-3%



PHOTO 3: sample 1768 (14 ppb gold) 0.25m channel sample, oxidized, crenulated thin quartz veins in graphitic schist interlayered with less than 5% sericite schist-oxidized but little or no pyrite

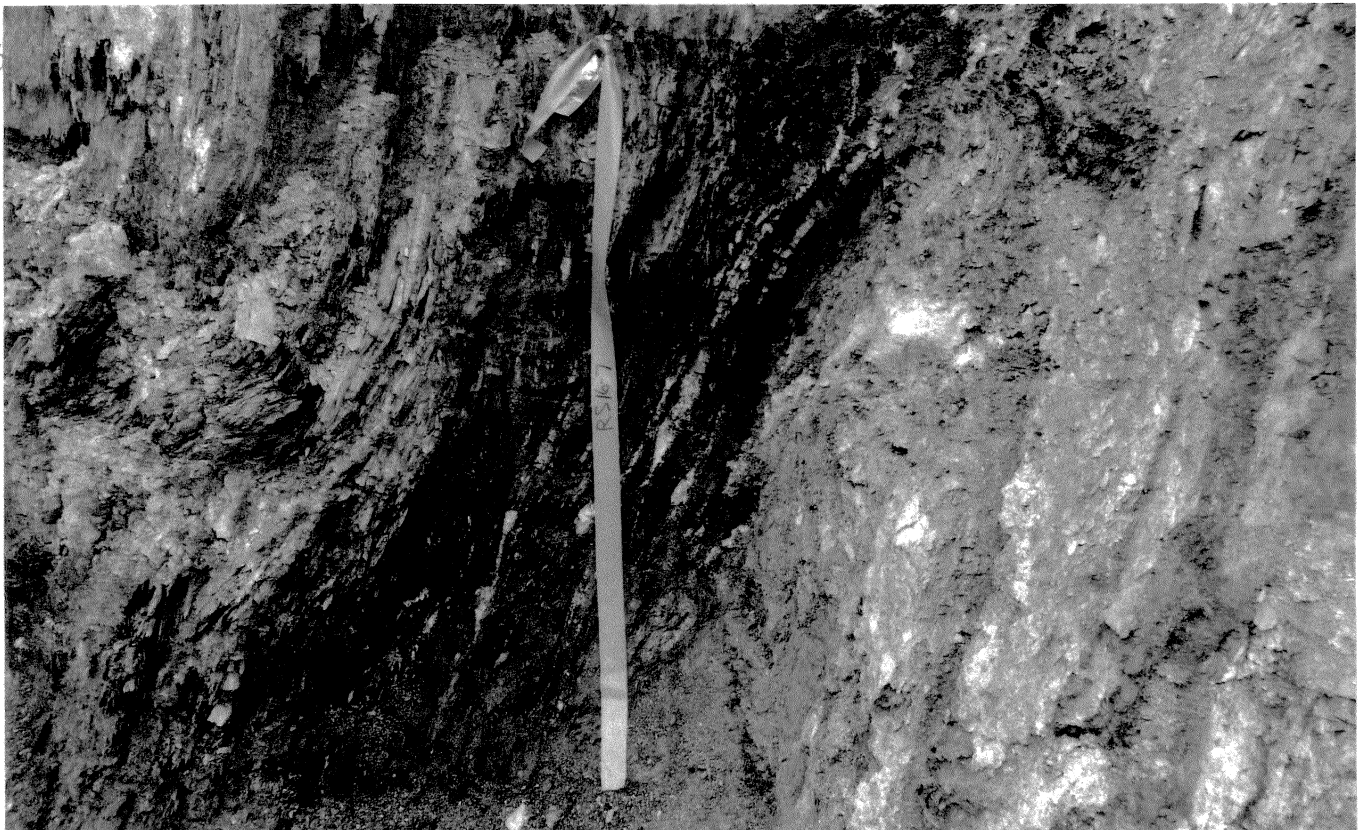


PHOTO 4: sample 1773 (71 ppb gold) 30% thin discontinuous quartz veins in black graphitic schist. Fold structure in limey altered sediments on left side and oxidized-grey gouge on right



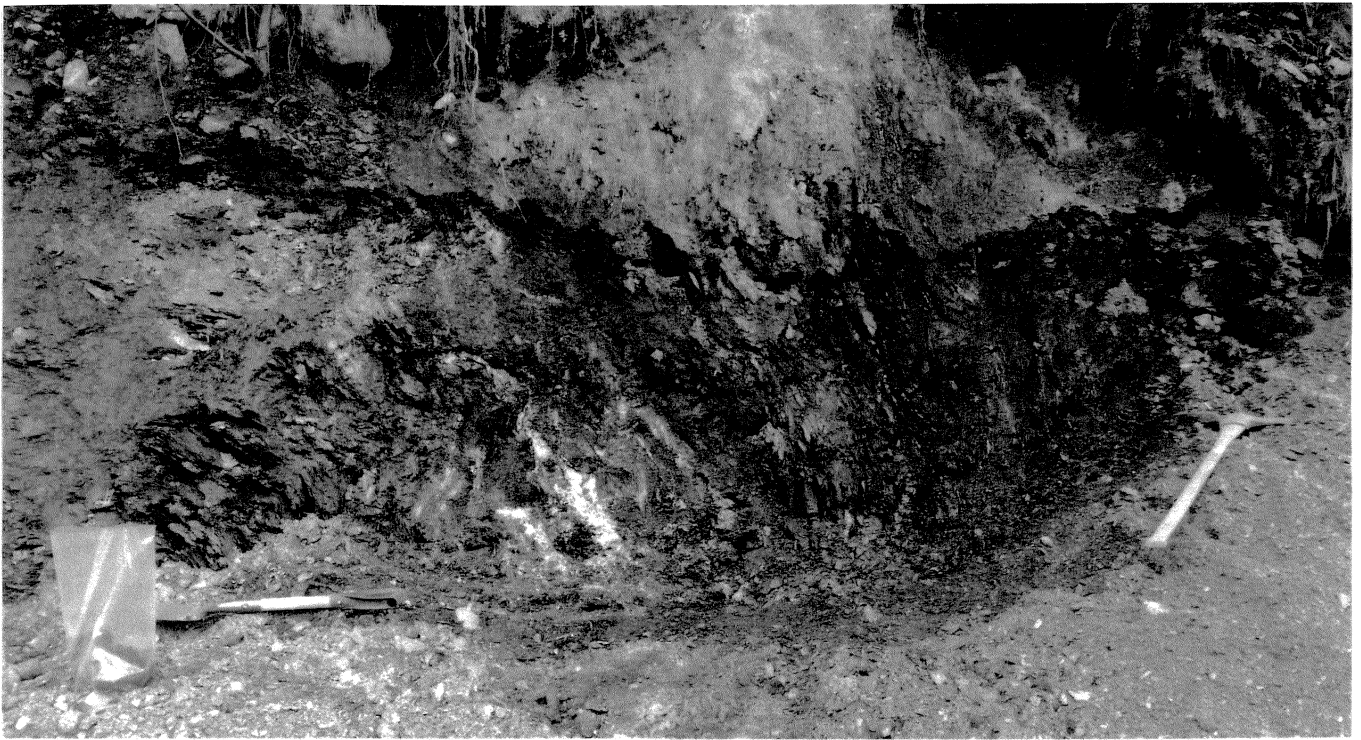


PHOTO 5: sample 1775 (295 ppb gold), 1772 (87ppb gold), 1771 (65ppb gold), 1773(71 ppb gold), 1774(22 ppb gold) highly crenulated graphitic schist with irregular clots of white clay gouge, oxidized central fine bedded/foliated sericite schist interlayered with quartz veinlets.

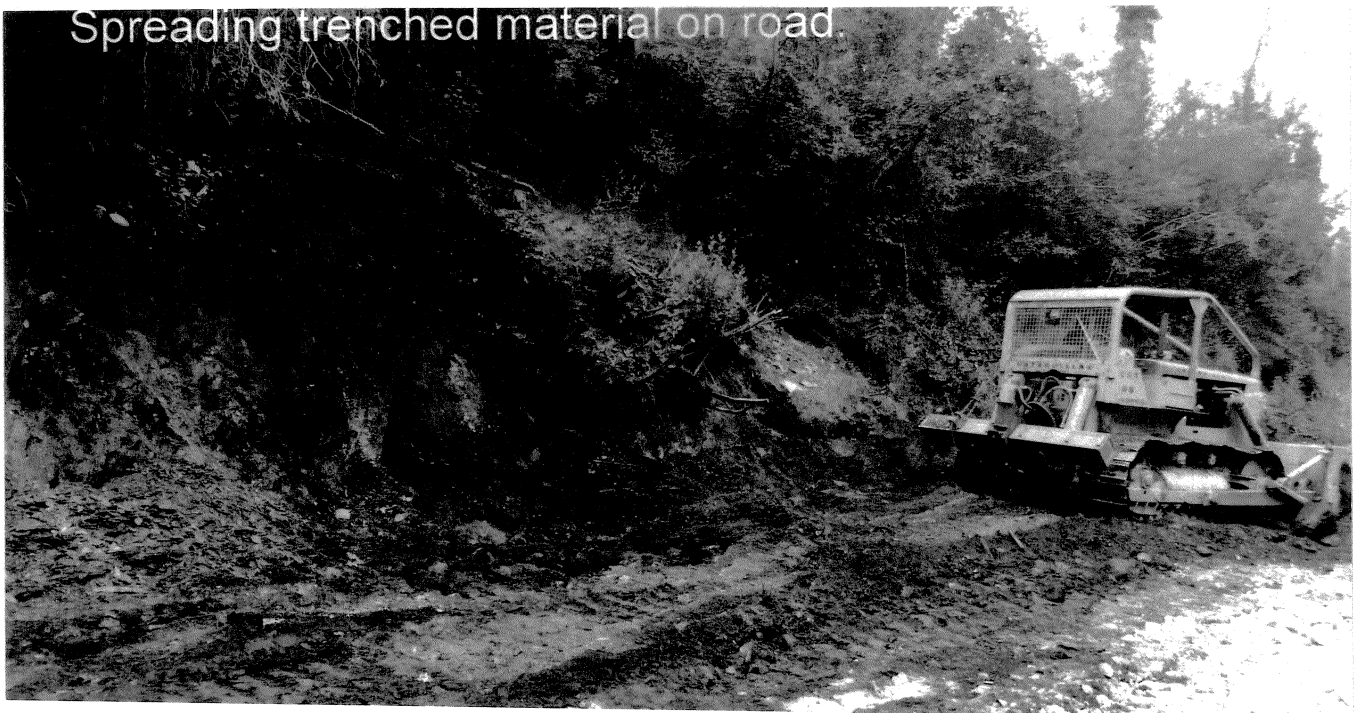


PHOTO 6: bulldozer reclaiming trenched material along the road near the north end of the 2016 trench.

## 2016 ANALYTICAL PROCEDURE

The analytical work prior to 2016 was done by Bureau Veritas with samples being prepared in Whitehorse and shipped to Vancouver for analysis. The analysis was for 36 elements including gold and provides a very valuable data base for elements associated with gold mineralization. In 2016 all the samples were taken by the writer on the return road trip to Vancouver and delivered to ALS Laboratories. They provide a single element trace level gold analysis. Since the associated elements are well known from the previous four years of multi-element analytical work the focus in 2016 was on gold, the only element of economic interest. This new procedure was done largely as a cost saving measure. However, the writer prefers the multi-element analysis and this will be considered for the 2017 sample analysis.

All the 2016 reject rock samples and geochemical soil and silt sample fractions have been saved and can be processed if additional analytical work is warranted.

## 2016 GEOLOGICAL MAPPING, GEOCHEMICAL SAMPLING PROGRAM

The exploration results from the 2015 program recommended additional work on four areas within the Kelli Claim Group. This report will review the 2016 exploration program as it relates to these four areas.

### 1 a) Lower Canyon (Map 1, 2014, 2105 and 2016, 1:500)

(a) The bulldozer trench was extended 80 m from the end of the Pautler 01–6 Trench that was panel sampled in 2015. The 2016 geology, sample location and analytical results are detailed in the following table and sample locations are outlined on *Map 1*. Channel samples were taken from geological sections that were considered favourable for gold mineralization.

Sample Number	Description	ppb gold
	(470) 3419 / 4685 = 0 on tape	
1767	(471) 3418 / 4690 = 0 + 3.5 to 4 m (0.5 m channel sample) crenulated chlorite schist interlayered with tan sericite schist (20%). Thin irregular oxidized, drag-folded quartz veining, fine pyrite 2-3%	281
1768	(473) 3430 / 4693 = 13.5 (473) + 18.3 m – 19.7 m) 0.25 m wide oxidized crenulated, thin quartz vein system, highly oxidized vein selvages. No pyrite noted.	14
1769	(473) + 22.1 m to 22.6 m 22.1 m to 22.6 m, tan sericite schist, minor quartz veining, thin highly oxidized layers, carbonate hanging wall	46

Sample Number	Description	ppb gold
1770	(476) 3434 / 4715 0.3 m wide sample, interlayered graphitic schist and thin quartz veins, highly oxidized	35
1771	(478) 3451 / 4735 = (471 + 24 m) 20 cm by 30 cm clot of quartz in intensely sheared sericite, quartz graphitic schist (faults–shear zone–seepage)	65
1772	(476) + 19.3 to 20.3 m black graphitic schist to 19.5 m and then into a black–cream gouge–clay fault alteration zone, orange oxidation	87
1773	(476) + 27.7 m to 28.3 m 30% thin discontinuous quartz veins in black graphitic oxidized schist (280° / 80° SE)	71
1774	(476) + 18.8 m to 29.5 m approximate 1 m wide sample, 25% thin irregular quartz veinlets in graphitic schist, highly oxidized	222
1775	(481) 2.5 m sample Channel sample, black gouge, 15% white quartz clasts, fine discontinuous quartz veinlets, 10% sericite schist, 20% graphite schist	295

### Comment

The analytical results indicate anomalous but sub-economic gold values in this highly altered, sheared mylonized section of the south margin of the Denali Fault zone. There is outcrop exposed to the north along the continuation of the 1980s placer mining cut but additional bulldozer trenching is not possible because of the close proximity to the creek. In addition within a short distance to the north deep bulldozed placer tailings cover the original west edge (Left Limit) of the placer mined area.

### 1 b) Lower Canyon

In addition to the mapping and sampling of the 80 m trench a traverse was made starting on the road at WP 29 (3306 / 4618) and going up the very steep talus filled gully to the west. This gully–fault–contact zone is the south contact of the zone of structural deformation. To the south is a 6 m to 7 m thick grey feldspar porphyry dike that strikes 285° and dips steeply south. This dike possibly intersects the much more prominent north-south trending grey feldspar porphyry dike. The footwall contact of the major north-south dike can be traced but the dikes continuation to the north is uncertain. It is possible the dike is faulted off as the prominent westerly trending ridge is more likely the continuation of the dacite dike complex. The intruded formation is much more a thick section of thin bedded impure limestone than andesite / chlorite schist. Soil samples collected immediately above the outcrop area (canyon) gave

very low gold values. At WP 398 following the outcrop area to the east is a prominent 'pinnacle' of thin bedded tan-cream limestone that forms the northerly edge of the outcrop area. This silty-limestone outcrops along the west edge of the road at the start of the bulldozer trenching and 2015 sampling.

#### **Comment**

This mapping has confirmed that the major east-west trending dike that is in the order of 20 m thick and dips to the west at  $-60^{\circ}$  to  $-80^{\circ}$  continues over a distance of at least 300 m to 350 m. The continuation to the north is uncertain but it does cross Reed-Kelli Creek to the east before it is obscured by overburden, muskeg and thick alders. The prominent formation on the west side of the Lower Canyon is thin bedded limestone cut by the steep dipping dacite dike swarm that crosses Reed-Kelli Creek at  $115^{\circ}/295^{\circ}$ . Soil and silt sampling in this section of the Lower Canyon has produced only gold background results.

#### **2) Middle Canyon**

The 2015 rock sampling in the Middle Canyon located one highly anomalous gold sample of 1,014 ppb (WP 213 Sample #17). A soil sample in close proximity to the rock sample that analyzed 493 ppb gold. In the field the outcrop sampled was described as a dark green, oxidized sheared footwall of a massive chlorite schist. Pyrite, fine to medium grained 10% is disseminated in the schist with up to 5% irregular thin quartz veins. Hand Specimen #35, was taken of the chlorite schist, strongly magnetic, moderately effervescent in dilute HCl, with 10% fine grained pyrite.

#### **ALS Metallurgy / Mineralogy**

In order to get a more complete analysis of this sample the reject was taken to ALS Metallurgy-Mineralogy Services in Kamloops. The report is under *Appendix C*. The analysis lists 15 specific minerals in descending order: quartz 7%, feldspar 23%, chlorite 18%, muscovite 8%, carbonates 7%, iron oxides 4%, pyrite 3%, amphibole 3% and titanium minerals 1.6%. Copper minerals are very low  $<0.1\%$ . The distribution of sulphur bearing minerals is 99.5% pyrite which represents 3.4% by weight.

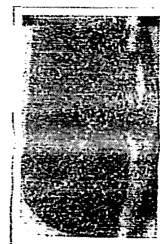
#### **Vancouver Petrographics Ltd.**

Hand Specimen #35 was given to Vancouver Petrographics Ltd. to prepare a thin section for a petrographic evaluation. The entire report is under *Appendix D*. The following is an excerpt from the report.

## Petrographic Description

### Sample 1: 213(35)

#### Chlorite schist



Inequigranular fragments of quartz and albite are wrapped by discontinuous cleavage domains of fine-grained chlorite. Subordinate calcite, pyrite and magnetite crystals are dispersed within the schistose microstructure.

<i>Mineral</i>	<i>Modal %</i>	<i>Size Range (mm)</i>	<i>Distinguishing Features</i>
quartz	31 – 33	up to 0.5 long	low relief, birefringence up to first order white
albite	29 – 31	up to 0.4	low relief, first order grey birefringence, albite twinnings
Fe-chlorite	20 – 22	up to 0.15	moderate relief, weak pleochroism with green tints, straight extinction, low and anomalous birefringence, positive elongation
calcite	6 – 7	up to 0.1	high relief, extreme birefringence, brisk reaction to cold dilute (10%) HCl
white mica	5 – 6	up to 0.05	moderate relief, birefringence up to third order blue, straight extinction
pyrite	3 – 3.5	up to 0.25, rare up to 1.2 long	high reflectance, creamy white, isotropic
magnetite	2 – 3		low reflectance, dark grey, isotropic
rutile/leucoxene	1 – 1.2	up to 0.02 long	
tremolite/actinolite	0.5 – 1	up to 0.05	moderate relief, colourless, oblique extinction up to 15°, up to second order birefringence
chalcopyrite	tr	up to 0.04	high reflectance, yellow

Quartz forms inequigranular and xenoblastic crystal fragments intergrown with slightly less abundant xenoblastic to subidioblastic fragments of albite. The quartz tends to form elongate microlithons, which are oriented sub-parallel to the main schistosity. In some cases the quartz-albite aggregates form porphyroblastic aggregates, which are wrapped by the chlorite-



## **Comment**

The ALS mineral composition and Vancouver Petrographic mineral distribution are very similar. However, in neither study was gold noted in any form. Considering the sample analysis of 1,014 ppb gold it is surprising that gold did not appear somewhere in the overall evaluation of the reject sample or in the polished section.

### **3) 2016 Middle Canyon Geological Mapping and Sampling**

#### **a) East side of Reed-Kelli Creek in area of 2015 Sample 17**

The entire outcrop area over a distance of 100 m was remapped on a scale of 1:500 centered on the location of Sample 17 (WP 213: 3219 E / 4314 N). A number of the soil samples are anomalous. The highest is 349 ppb gold from the hanging wall zone related to Sample 17. This is a massive dark fine grained andesite(?) , blocky jointing, magnetite 1% – 3%, sample of the hanging wall and footwall analyzed 7 ppb gold and 67 ppb gold. Both soil and rock samples were taken from the outcrop area below Tremblay's screen. Soils are often anomalous but no rock samples were anomalous even though highly altered with quartz veining and pyritic. There is a high component of carbonate mineral in these rocks even though they appear to be andesite and more often chlorite schist. Magnetite is much more erratic but it is significant in the area of Sample 17. Grey feldspar porphyry dikes with random orientation are common and occur adjacent to Sample 17.

The sampling has not produced anything like the grade of Sample 17. It is possible that a random placer gold particle was included in the sample but the location is not favourable for placer gold and no other particles were located in the reject by the ALS analysis.

The data cannot be properly plotted on a scale of 1:500 and should be replotted on a scale of 1:200.

#### **b) West side of Reed-Kelli Creek**

This section deals with the west side of Reed-Kelli Creek starting where the major feldspar porphyry dike outcrops on the road. Mapping on the east side of the creek located numerous outcrops of this dike indicating that the intrusive crosses the north-south trending, probable fault structure, that forms Reed-Kelli Creek and enveloping canyons without any offset. This dike has two subparallel dikes on its south hanging wall side that are in the order of 3 m – 4 m thick and dips 60° south. A soil/rock chip sample (SSo 15) from the highly sheared chloritic hanging wall returned a value of 192 ppb gold. Fifteen metres to the south is the start of massive dark orange brown weathering chloritic andesite cut by thick, 0.2 m to 0.5 m crenulated/faulted quartz veins that make up 10% to 20% of the outcrop mass. This quartz vein system can be traced along the west canyon wall for 200 m and over a width of 15 m to 20 m and may be thicker but the very steep canyon wall makes it difficult to evaluate. The quartz veins have variable amounts of pyrite as disseminations and clots in the order of 2% to 10%. However, numerous samples of these quartz veins in place and selected samples from float have little or no associated gold.

In 2015 a sample of highly oxidized gouge and orange weathering soil at the base of the quartz vein system (WP 142, Soil Sample 8) analyzed 3,750 ppb gold. Rock samples in the immediate quartz vein gave very low gold

values. In 2016 Sample 3, WP 347 was taken from the highly oxidized selvage of the same quartz vein and it analyzed 439 ppb gold. Sample 4, WP 348 was taken from a vertical oxidized structure 0.25 m thick composed of gouge and a drag-folded quartz vein and analyzed 199 ppb gold. In the same area in 2015 Soil Sample 11, WP 201 composed of orange-oxidized soil analyzed 987 ppb gold.

Over a distance of 250 m to 300 m along the west side of the Middle Canyon there are numerous gold anomalous soil samples. The soil samples are largely from the edge of talus slopes that originate from the major quartz vein system. A great many rock samples have been taken from float that looks very promising for gold mineralization but the gold content is uniformly low.

#### **Comment**

The 2016 program continued to locate soil samples with highly anomalous gold values related to the quartz vein-oxidized chloritic schist that forms the west wall of the Middle Canyon. The source of the gold is not from the quartz veins but from the selvage of the veins and cross cutting fault structures. These structures are normally thin and discontinuous. The 1:500 scale map of the Upper Canyon is still a work in progress.

#### **4) 2016 Exploration Area 2**

This area was 'circled' on the 2015, 1:3000 scale map (*Map 3*) and covered a section on the east side of Reed-Kelli Creek between the south end of the Upper Canyon and the Forks. Three silt samples collected from small tributary streams on the east side of the valley were gold anomalous ranging from 88 ppb gold to 604 ppb gold. The samples extended over a distance of 250 m along the east side of the valley.

The lower elevations of the valley adjacent to the creek have irregular low bench development that is uniformly covered by alders. The small tributary streams often disappear in the bench areas and the alders make it very difficult to see the stream channels on the hillside. This resulted in a stream not being sampled that flows on the north side of the slide area.

The 2016 field work was plotted on the base Map 2, scale 1:1000 developed from the LIDAR airborne topographic survey. The waypoints locating the silt samples plotted very accurately on the stream channels.

The 2016 stream silt sampling program began at WP 441 (572773 E / 6823534 N) and went up a small stream. Six silt samples have been collected from this stream with the lowest value being 118 ppb gold and the highest being 746 ppb gold. All six samples are gold anomalous. The sampling continued in the next stream to the south but at a higher elevation of 1,210 m. At this elevation the alder have been replaced by open muskeg, willows and buck brush. The first two samples at WP 448 and WP 449 were gold anomalous at 182 ppb gold and 1,610 ppb gold. Three other samples were collected going downstream and these were anomalous ranging from 55 ppb gold to 148 ppb gold.

There are a few small outcrops in the creeks and rock specimens 7 to 11 were collected from these outcrops. Outside of one feldspathic dike all the rocks are chloritic schists with a significant carbonate component (effervesces moderate to high in dilute HCl). Fine grained disseminated pyrite from 2% to 5% is often associated with thin quartz veining but with low to nil magnetite. One large block of white quartz float occurs in the creek at WP 449.

The sampling continued up Reed-Kelli Creek and at WP 329 at the base of the organic slide the sample was threshold anomalous at 88 ppb gold. On the south side of the slide a large stream was originally dammed by the slide but has eroded a new channel. Upstream from WP 462 it is blocked by a maze of criss-crossed stunted black spruce trees. The silt at WP 462 was threshold anomalous at 54 ppb gold. A secondary tributary was sampled at WP 463 with a value of 304 ppb gold. There is a small outcrop of massive blocky altered andesite cut by a feldspar porphyry dike at WP 463.

Continuing to the south up Reed-Kelli Creek there is a large outcrop area on the east side of the creek-bar. It is massive andesite, 10 m vertical and cut by a feldspar porphyry dike. A silt sample from a small 'trickle' of water at the end of the outcrop area at WP 468, Silt Sample #40 had a very low value of 7 ppb gold.

The final upstream Silt Sample #41, WP 469 taken from the start of a significant stream has a value of 582 ppb gold.

Because the silt samples were only analyzed for gold three samples were sent to Acme Analytical Laboratories Ltd. for AQ200, 36 element analyses to see if there were associated elements. Copper ranged from 77 ppm to 170 ppm, arsenic from 7 ppm to 73 ppm, iron 3% to 8% and calcium 3% to 8%. These results do not indicate any significant element association with the high gold values.

Sampling on the west side of Reed-Kelli Creek is very limited. There are three anomalous silt samples near the outlet of the stream at the ATV trail crossing on the north side of Map 2. In 2015 six silt samples were collected from shallow stream/springs at an elevation of 1,180 m between WP 112 and WP 118. The samples were uniformly low, less than 10 ppb gold. However, the only soil sample collected on the west side of Reed-Kelli Creek opposite the gold anomalous creeks on the east side is a 2015 Soil Sample #4. It is described as being taken from a depth of 0.25 m from thawed soil, no volcanic ash, next to a very large round granite boulder. It returned a value of 390 ppb gold.

There are two other samples, one a soil sample taken by Placer dome in the 1980s and a rock sample taken by Jean Pautler in 2011. The Placer Dome sample is shown on Map 2 and is extrapolated as being taken at an elevation of 1,280 m to the southeast of the start of the organic slide. This was the only anomalous (785 ppb gold) soil sample from a long series of soils taken from the Forks to the outlet of Reed-Kelli Creek. The balance of the soils were in the 20 ppb gold to 30 ppb gold range.

The Jean Pautler sample was taken over a 1 m width of quartz stringer and averaged 1.5 g gold per ton. The sample is from or near the large outcrop area on the east side of the valley (WP 335).

### **Comment**

The 2015 and 2016 silt sampling has outlined a significant area of gold anomalous silt sample values on the east side of Reek-Kelli Creek. The anomalous values extend over 400 m of valley bottom and an elevation interval of 80 m.

### **5) 2016 Exploration Area 1 – Reed-Allen Creek**

This area was ‘circled’ as an exploration target on the 2015 Map 3, 1:3000. Within this area there are a number of gold anomalous silt samples. The entire area is downslope from Structure 1 that is projected from the Lower Canyon on Reed-Kelli Creek. In addition, Bill Allen is hand mining placer gold from gravels in Reed-Allen Creek at the base of a feldspar porphyry dike on the east side of the creek.

One of the silt samples that analyzed 592 ppb gold was on open ground not covered by the Kelli Claim Group. As a result twelve additional claims were staked to the north and east. The Toots Claims 1 to 12 are outlined on Map 3, 1:4000. This map shows the possible projection of the feldspar porphyry dike to the southeast as well as the projected Structure 1 from Reed-Kelli Creek. The assumed feldspar porphyry dike extension marked by a distinct ridge with a gentle slope to the south but a very steep face to the north. Silt samples were collected from a number of small stream/springs that drain from the ridge to the north. Of the 11 silt samples collected only one was gold threshold anomalous at 59 ppb gold. The majority were in the range of 2 ppb gold to 5 ppb gold. The 59 ppb gold silt sample was from the north-south tributary that crosses the Toots 7 and 9 claims. Six silt samples taken on the north side of Toots 4 claim from 3 small streams that are within the south margin of the Shakwak trench/Denali Fault. One of the streams had two samples of 47 ppb gold and 106 ppb gold.

### **Comment**

The silt sampling program on the Toots Claims was a very early stage exploration program and produced only one gold anomalous value. However, the projected geology is of great interest and deserves detailed evaluation.

## CONCLUSION AND RECOMMENDATIONS

- 1) The results of the 2016 exploration program continue to advance the project and prioritize exploration targets.
  - a) The sampling in 2015 and 2016 of the mylonized graphitic sericite chlorite schist formation at the outlet of the Lower Canyon of Reed-Kelli Creek (*Map 1, 1:500*) has outlined a gold anomalous zone over a width of 140 m. The results are not economic but there is a concern that the full potential of this section has not been evaluated. In 1989 (INAC, 1990) T. Bremner reported free gold being panned from a “black quartz-carbonate graphite material containing up to 50% white quartz veinlets... Panning the black altered material from the excavation yielded about 14 gr of coarse gold from one out of 10 4.5 kg samples”. A gravity gold recovery program is being developed to process the 2015 reject panel samples that are stored in Whitehorse.
  - b) The exploration of the Middle Canyon can only be viewed as a work in progress. Exceptional gold values have been found but often in narrow discontinuous zones. The work to date continues to advance the understanding of the overall geology and distribution of gold values. The detailed mapping in 2016 and previous data based should be plotted on a scale of 1:200. On the west side of the Reed-Kelli Creek the shattered quartz vein swarm cuts highly altered andesite-chlorite schist over a strike length of 200 m and a width of 20 m to 30 m. Soil samples along the entire length of this zone indicate it is gold anomalous.

It is recommended that ongoing mapping sampling be continued to better define this potential drill target.

- c) The 2015 and 2016 silt sampling program on the east side of Reed-Allen Creek between Structure 2 and the Forks has produced a series of exceptional gold values over a large area. This area plus the west side of Reed-Kelli Creek warrant an expanded geochemical sampling and geological mapping program. This area is considered the highest priority exploration target for 2017.
- d) The Reed-Allen Creek area within the Grace and newly staked Toots Claims is an early stage exploration target. Both the placer gold production in the area, significant silt sample results and general geology demonstrates that the area warrants ongoing exploration.

Respectfully submitted,



G. Gutrath, BSc, PEng geologist

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## **APPENDIX A**

### **STATEMENT OF QUALIFICATIONS**

**ENGINEER'S CERTIFICATE**

I, GORDON GUTRATH, of 702 – 181 Athlete's Way in the city of Vancouver in the Province of British Columbia, DO HEREBY CERTIFY:-

1. That I am a geologist with a business address of 702 – 181 Athlete's Way, Vancouver BC V5Y 0E5
2. That I am a graduate of the University of British Columbia where I obtained by B.Sc., in geological science in 1960.
3. That I am a Registered Professional Engineer in the Geological Section of the Association of Professional Engineers in the Province of British Columbia
4. That I have practiced my profession as a geologist for the past fifty-seven years.

DATED at the city of Vancouver, Province of British Columbia, this ~~30~~<sup>31</sup> day of January, 2017.



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Gordon G. Gutrath, B.Sc., P.Eng.



## **APPENDIX B**

### **HAND SPECIMENS**

Specimen Number	Waypoint Location		Description
	East	North	
1	573256	6824631	<b>Impure graphitic limestone/marble</b> Dark greenish-black, fine grained uniform, foliated, crystalline groundmass cut by thin calcite veinlets subparallel and cross-cutting the foliation. Mag – 0, Ca (HCl)+++ both groundmass and veinlets. >1% fine pyrite
2	575658	6823035	<b>Quartz mica schist</b> Light grey-green, fine grained, highly foliated quartz-mica lesser chlorite schist. Mag++, probable pyrrhotite (very fine grained and in short-thin veinlets). Fracture subparallel foliation orange iron oxides. Pyrite/pyrrhotite 1%, Ca(HCl) – 0.
3	575596	6823072	<b>Chlorite schist</b> Dark blackish-green groundmass, foliated with black, very soft, thin plates of chlorite(?), fine grained crystalline with 1% fine grained pyrite, oxidized fractures. <u>Highly magnetic</u> +++ , Ca(HCl)+++ numerous carbonate fractures and fine clots with pyrite 5%. Groundmass is Ca(HCl) – 0.
4	573216	6824307	<b>Foliated andesite</b> Fine grained, dark grey-green, with fine grained light grey feldspar (30%) in dark, soft foliated plates chloritic groundmass. <5% fine grained quartz. Pyrite, fine grained 1%, <5% calcite carbonate clots HCL+++ , Mag – 0
5	573207	6824312	<b>Impure limestone/marble</b> Fine grained dark grey-green groundmass, weak foliation, impure marble as fine grained calcite is HCl++. Fine grained pyrite 2% - 4% disseminated in groundmass, <u>highly magnetic</u> , Mag+++
6	573221	6824284	<b>Chlorite schist</b> Fine grained dark grey-green, moderate foliation, interstitial calcite clots, calcite high to moderate effervescence HCl++. No magnetite, Mag – 0, Pyrite, very fine grained 1%.
7	572818	6823471	<b>Chlorite schist</b> Dark grey-green, fine to medium grained, highly foliated, chloritic matrix with fine grained calcite in dark green chlorite groundmass, cross-cutting calcite veinlets. Highly effervescent in HCl+++ . Highly magnetic. Fine disseminated pyrite 2% - 3%. Specimens 4, 5, 6 and 7 are very similar in appearance but vary in magnetite content.
8	572841	6823433	<b>Feldspathic dike</b> Light coloured greyish-green, fine grained with weak foliation, HCl– , Mag – 0, less than 10% quartz, >1% very fine grained pyrite.

Specimen Number	Waypoint Location		Description
	East	North	
9	572827	6823424	<b>Quartz carbonate</b> Light coloured orange oxide weathering, light grey groundmass, irregular quartz veinlets with 3% - 4% fine grained pyrite, possibly lesser chalcopyrite, numerous inclusions of calcite – moderately effervescent HCl <sup>++</sup> , Mag – 0.
10	572824	6823435	<b>Chlorite, quartz-carbonate schist</b> Light grey-green, this platy intense foliation, thin calcite layers 15% HCl <sup>++</sup> , very finely disseminated pyrite 1%.
11	572803	6823451	<b>Chloritic carbonate schist</b> Dark grey-green, crystalline appearance, highly foliated, calcite 10% - 15% fine grained highly effervescent HCl <sup>++</sup> , Mag – 0, finely disseminated pyrite 5%
12	572681	6823354	<b>Chloritic carbonate schist</b> Light greenish-grey coloured siliceous(?) groundmass with thin (1 mm) black, 3 mm – 5 mm spaced layers, bordering siliceous feldspathized breccias with irregular thin veining with finely disseminated pyrite 3%. Numerous thin carbonate inclusions – veinlets 5% highly effervescent HCl <sup>++</sup> .
13	572672	6823368	<b>Pyritic quartz vein</b> Dark yellow-orange gossanous coating on pyritic quartz vein. Open space filling with some oxidized rugs having associated calcite (effervescent). Pyrite in clots and disseminations.
14	573278	6824499	<b>Andesite (fine grained quartz diorite dike?)</b> Uniformly fine grained light grey quartz and feldspar 40% and black 55% hornblende(?) weak foliation. Highly magnetic Mag <sup>+++</sup> , cut by thin 2 mm quartz veins with associated minor calcite (HCl <sup>+</sup> ). No calcite in groundmass HCl <sup>-</sup> . Less than 1% finely disseminated pyrite.
15	572972	6824159	<b>Foliated / limestone (marble)</b> White with pale orange weathering on fracture. Highly foliated, thin interbedded fine bands/beds alternating with white to light tan colour. Scattered areas of disseminated black mineral, soft subrounded of uncertain composition. HCl <sup>+++</sup> , no pyrite, Mag – 0.
16	573245	6824332	<b>Impure limestone</b> Massive, dark grey-green, fine to medium grained weak laminations, cut by 3 cm – 6 cm white, irregular calcite veinlet. Fine grained calcite throughout a dark green platy chlorite(?). Highly effervescent HCl <sup>+++</sup> and Mag <sup>+++</sup> . Finely disseminated pyrite 2% - 4%, possible chalcopyrite.

Specimen Number	Waypoint Location		Description
	East	North	
17	573253	6824325	<b>Impure limestone</b> Massive, dark grey-green, similar to Specimen 16. Weak laminations, irregular subparallel calcite veinlets 5%, orange oxidization (carbonate) on fractures highly effervescent in HCl+++; Magnetite++. Pyrite disseminated 4% - 6% fine grained green patches epidote with minor chalcophrite, pyrrhotite(?).
18	573258 (WP 546)	6824318	<b>andesite</b> Massive dark grey-green, more competent than Specimen 17, fine grained. Minor calcite veinlets. Ca minor, HCl - 0. Highly magnetic, Mag+++; green chlorite on fractures, fine pyrite 1%.

**APPENDIX C**

**ALS METALLURGY–MINERALOGY SERVICES**

**REPORT**

**TABLE 1A**  
**MINERAL COMPOSITION OF THE KELLI CLAIM GROUP SAMPLE**  
**KM5024**

Minerals	Yukon Rock Sample
Chalcopyrite	<0.1
Bornite	<0.1
Chalcocite	<0.1
Covellite	<0.1
Pyrite	3.4
Iron Oxides	4.2
Quartz	30.4
Muscovite	7.8
Feldspars	23.3
Kaolinite	0.1
Chlorite	18.1
Carbonates	6.6
Titanium Minerals	1.6
Amphibole/Pyroxene	2.9
Apatite	0.6
Others	0.9
<b>Total</b>	<b>100</b>

Notes: 1) Iron Oxides includes Magnetite, Hematite, Goethite and Limonite.

2) Muscovite includes Biotite/Phlogopite.

3) Feldspars includes Feldspar Albite, Plagioclase Feldspar, K-Feldspar and Alkali Feldspar.

4) Carbonates includes Calcite and Ankerite

5) Titanium Minerals includes Ilmenite, Rutile/Anatase and Sphene.

6) Others includes Chromite and unresolved mineral species.

7) A Particle Mineral Analysis was used for the measurement.

TABLE 1C  
CHEMICAL COMPOSITION OF THE KELLI CLAIM GROUP SAMPLE  
KM5024

Element	Assay Methods	Yukon Rock Sample
Al	QEMSCAN	5.35
	Chemical	5.61
Ca	QEMSCAN	3.10
	Chemical	2.87
Fe	QEMSCAN	8.62
	Chemical	9.30
S	QEMSCAN	1.85
	Chemical	1.76
Si	QEMSCAN	26.1
	Chemical	22.0
Ti	QEMSCAN	0.62
	Chemical	0.58

**TABLE 1B**  
**DISTRIBUTION OF SULPHUR BEARING MINERALS**  
**Yukon Rock Sample**

Mineral	Assays Wt. %	% Sulphur Bearing Mineral of Total Sulphur
Chalcopyrite	<0.1	0.5
Bornite	<0.1	<0.1
Chalcocite	<0.1	<0.1
Covellite	<0.1	<0.1
Pyrite	3.4	99.5
Total	100	100



**APPENDIX D**

**VANCOUVER PETROGRAPHICS LTD.**

**REPORT**

# 312,90



Report for: Gordon C. Gutrath, P.Eng.  
Atled Exploration Management Ltd.

Sent to: Gordon C. Gutrath, P.Eng.

Report 160314

May 13, 2016

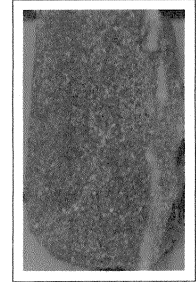
**Petrographic Report on One Rock Sample  
for Atled Exploration Management Ltd.**

Fabrizio Colombo, Ph.D., P.Geo.  
*fab.petrologic@gmail.com*

# Petrographic Description

## Sample 1: 213(35)

### Chlorite schist



Inequigranular fragments of quartz and albite are wrapped by discontinuous cleavage domains of fine-grained chlorite. Subordinate calcite, pyrite and magnetite crystals are dispersed within the schistose microstructure.

<i>Mineral</i>	<i>Modal %</i>	<i>Size Range (mm)</i>	<i>Distinguishing Features</i>
quartz	31 – 33	up to 0.5 long	low relief, birefringence up to first order white
albite	29 – 31	up to 0.4	low relief, first order grey birefringence, albite twinnings
Fe-chlorite	20 – 22	up to 0.15	moderate relief, weak pleochroism with green tints, straight extinction, low and anomalous birefringence, positive elongation
calcite	6 – 7	up to 0.1	high relief, extreme birefringence, brisk reaction to cold dilute (10%) HCl
white mica	5 – 6	up to 0.05	moderate relief, birefringence up to third order blue, straight extinction
pyrite	3 – 3.5	up to 0.25, rare up to 1.2 long	high reflectance, creamy white, isotropic
magnetite	2 – 3		low reflectance, dark grey, isotropic
rutile/leucoxene	1 – 1.2	up to 0.02 long	
tremolite/actinolite	0.5 – 1	up to 0.05	moderate relief, colourless, oblique extinction up to 15°, up to second order birefringence
chalcopyrite	tr	up to 0.04	high reflectance, yellow

**Quartz** forms inequigranular and xenoblastic crystal fragments intergrown with slightly less abundant xenoblastic to subidioblastic fragments of **albite**. The quartz tends to form elongate microlithons, which are oriented sub-parallel to the main schistosity. In some cases the quartz-albite aggregates form porphyroblastic aggregates, which are wrapped by the chlorite-

rich cleavage domains.

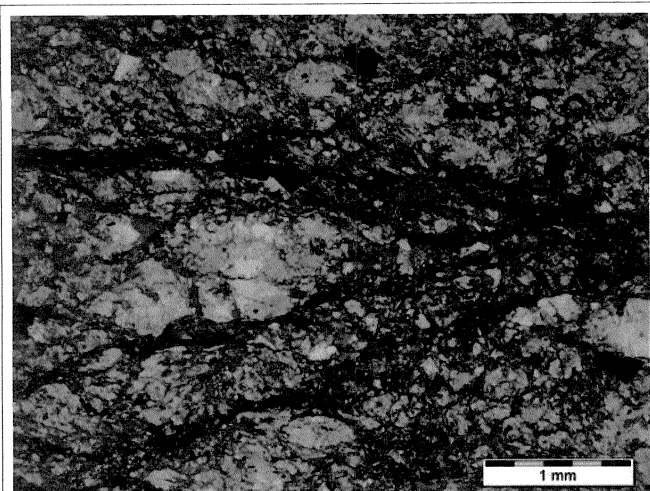
**Fe-chlorite** is fine-grained and it is concentrated within anastomosing cleavage domains, which are discontinuous, irregular, and sub-parallel, thus defining a weak schistosity in this sample. The chlorite-rich cleavage domains are intergrown with subordinate and fine-grained flakes of white mica.

**Pyrite** forms xenoblastic crystals, which are homogeneously dispersed within the schistosity. Some of the crystals hosts very fine-grained inclusions of magnetite, rutile(?) and unresolved nonreflectant minerals.

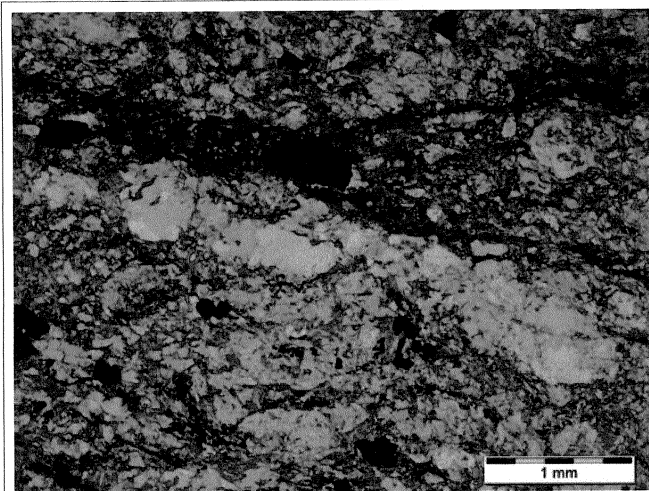
**Calcite** is dispersed as xenoblastic crystals within the schistosity, and it is distinguished by its brisky reaction to cold dilute (10%) HCl.

**Magnetite** is very fine-grained and is preferentially dispersed within the chlorite-rich aggregate. The occurrence of magnetite is confirmed by the relatively high magnetic susceptibility ( $SI \cdot 10^{-3} = 2.29$ ). The inclusion of the magnetite within some of the pyrite crystals indicates that the magnetite crystallization pre-dated the crystallization of the pyrite.

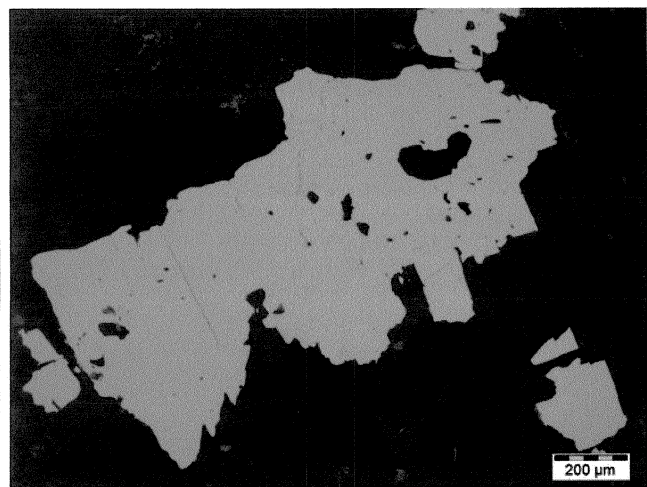
Very fine-grained xenoblastic crystals of probable **rutile/leucoxene** are spatially associated with the chlorite-rich aggregates.



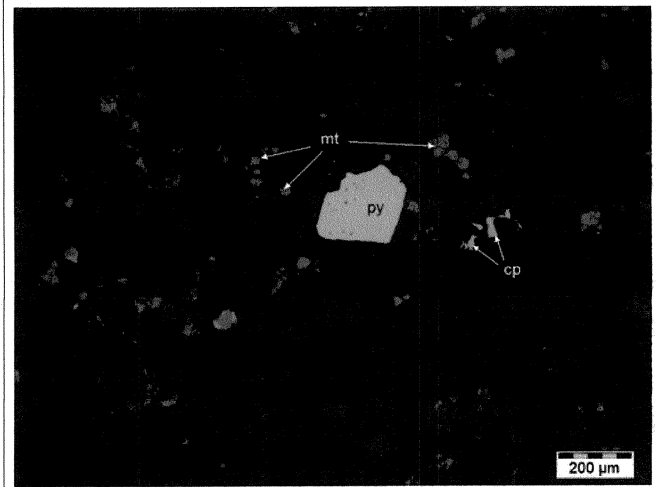
**Photomicrograph 1a:** Xenoblastic fragments and crystal aggregates of quartz and albite (white) are wrapped by anastomosing cleavage domains of chlorite (green). Plane-polarized transmitted light.



**Photomicrograph 1b:** The quartz (white) tends to form elongate microlithons sub-parallel to the schistosity, which is defined by the chlorite-rich cleavage domains (green). Plane-polarized transmitted light.



**Photomicrograph 1c:** Pyrite (white) forms xenoblastic crystals, which host very fine- to fine-grained mineral inclusions. Plane-polarized reflected light.



**Photomicrograph 1d:** Very fine-grained magnetite (mt) and very rare chalcopyrite (cp) are dispersed within the schistose sample. Plane-polarized reflected light.

This report consists of 4 pages and is signed by

*F. Colombo, Ph.D., P.Geol.*

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Association of Professional  
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**APPENDIX E**

**COST OF 2016 EXPLORATION PROGRAM**

**2016 Kelli Group Quartz Claims**  
**Geological Mapping, Geochemical Soil and Silt Sampling Program**  
**August 1, 2016 to August 20, 2016**  
(Cost allocation of 74% is based on man days spent on Quartz Claim exploration  
as a portion of the total Quartz-Placer Exploration Program)

**1. Mobilization and Demobilization**

Whitehorse to Destruction Bay to Hwy 1 turnout to Shakwak Trench

ATV-Argo trail to the Kelli Claim Group Camp

1 Ford 250 4 x 4 and trailer/supplies and ATV haul (22 truck days)

1 GMC ¾ ton 4 x 4 and trailer/Argo haul (4 truck days)

26 truck days @ \$50/day = \$1,300 at 74% \$ 962

**2. Living Expenses (Room and Board)**

Gordon Gutrath, Fred Erler and Lorne Smith

38 Quartz exploration man days @ \$100/man day 3,800

**3. Equipment Costs**

1 – 8 wheel Argo (\$200 round/trip – Dennis Dickson, Burwash)

\$800 @ 74% \$ 592

2 – ATVs 500 cc @ \$80/day for 20 days

\$1,600 @ 74% 1,184

1 – D8 bulldozer trenching 12 hrs @ \$200/hour

\$2,400 @ 74% 1,776

3,552

**4. Contractor**

Atled Exploration Management Ltd., G. Gutrath, Project Manager,  
Geologist, P.Eng., geological mapping, soil, silt and rock sampling

16 days @ \$400/day 6,400

F. Erler, assistant – sampling

16 days @ \$250/day 4,000

L. Smith, Argo and D8 operator

50 hrs @ \$30/hr = \$1,500 @ 74% 1,110

11,510

**5. Sample Analysis (ALS Geochemistry)**

33 soil, 41 silt and 24 rock samples (Au analysis) 2,503

**6. Data Compilation, Map Preparation, Mineral Evaluation and Report**

Jaworski Mapping Invoice GUT 05 1,338

Vancouver Petrographics Ltd. 312

ALS Metallurgy- mineral composition Kelli sample KM5024 411

G. Gutrath P Eng. Geologist, Geological and Geochemical Report 2,500

4,561

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**Total 26,888**

## **APPENDIX F**

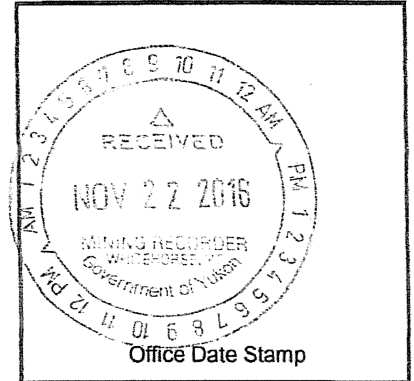
### **LIST OF CLAIMS, EXPIRY DATES AND OWNERS**



**APPLICATION FOR A  
CERTIFICATE OF WORK  
Form 4, Section 56  
QUARTZ MINING ACT**

This form should be submitted in duplicate to the Mining Recorder in the District in which the claim(s) is/are located with a copy of the claim sheet showing the location of work.

**Whitehorse Mining District**



I, Gordon Gutrath (occupation) of 702-181 Athletes Way, Vancouver, BC, make oath and say that:

1. I am the owner or the agent of the owner(s) of the following mineral claims, and I hereby apply to renew these claims for the period indicated:

Claim Name	Grant Number	Renewal Term	New Expiry Date	
ANN 1 - 4	YB35476 - YB35479	4.00	28 Jan 2029	
BUY 1 - 12	YA96221 - YA96232	4.00	28 Jan 2026	
FRED 1 - 2	YF46657 - YF46658	3.50	28 Jan 2025	C/D
FRED 3 - 5	YF46654 - YF46656	3.50	28 Jan 2024	C/D
GRACE 1 - 7	YA97463 - YA97469	4.00	28 Jan 2026	
JO 1	YB24070	4.00	28 Jan 2026	
KELLI 1	YA93845	4.00	28 Jan 2029	
KELLI 3 - 8	YA93847 - YA93852	4.00	28 Jan 2029	
KELLI 9 - 18	YA95337 - YA95346	4.00	28 Jan 2030	
KELLI 19 - 26	YA96352 - YA96359	4.00	28 Jan 2026	
KRISTY 1 - 2	YB26868 - YB26869	4.00	28 Jan 2029	
KRISTY 3	YB35800	4.00	28 Jan 2029	
KRISTY 5 - 14	YB35801 - YB35810	4.00	28 Jan 2029	
RENO 1 - 2	YA97470 - YA97471	4.00	28 Jan 2026	
ROSE 1 - 4	YA95976 - YA95979	4.00	28 Jan 2026	
ROSE 5	YA95980	4.00	28 Jan 2029	
ROSE 6	YA95981	4.00	28 Jan 2026	
TOOTS 1 - 12	YF46659 - YF46670	4.50	28 Jan 2022	C/D

3. Work has been done on the said claims under the following grouping number(s):  
HW07616

*November 22 / 2016*  
*Gordon Gutrath*

*Renewal  
years*

**CERTIFICATE OF WORK  
Form 5, Section 56  
QUARTZ MINING ACT**

**Whitehorse Mining District**

*Hwo7616*

Claim Name	Grant Number	Renewal Term	Expiry Date
ANN 1 - 4	YB35476 - YB35479	4	28 Jan 2025
BUY 1 - 12	YA96221 - YA96232	4	28 Jan 2022
FRED 1 - 2	YF46657 - YF46658	5	28 Jul 2021
FRED 3 - 5	YF46654 - YF46656	5	29 Aug 2020
GRACE 1 - 7	YA97463 - YA97469	4	28 Jan 2022
JO 1	YB24070	4	28 Jan 2022
KELLI 1	YA93845	4	28 Jan 2025
KELLI 3 - 8	YA93847 - YA93852	4	28 Jan 2025
KELLI 9 - 18	YA95337 - YA95346	4	28 Jan 2026
KELLI 19 - 26	YA96352 - YA96359	4	28 Jan 2022
KRISTY 1 - 2	YB26868 - YB26869	4	28 Jan 2025
KRISTY 3	YB35800	4	28 Jan 2025
KRISTY 5 - 14	YB35801 - YB35810	4	28 Jan 2025
RENO 1 - 2	YA97470 - YA97471	4	28 Jan 2022
ROSE 1 - 4	YA95976 - YA95979	4	28 Jan 2022
ROSE 5	YA95980	4	28 Jan 2025
ROSE 6	YA95981	4	28 Jan 2022

This is to certify that an affidavit setting out a detailed statement of work done on the above claim(s) since the 20 day of July 2015 has this day been filed in my office; and in pursuance to the provisions of the Quartz Mining Act, I do now issue this certificate of work in respect of the above claim(s) to:

Kelli J. Tremblay	33.33 %
Fred Erler	50.00 %
Sandra Erler	33.33 %
Kluane Martin	50.00 %
Sulo Poystila	25.00 %
Kelli J. Tremblay	37.00 %
Louise Bouvier	50.00 %
Kelli J. Tremblay	50.00 %
Kluane Martin	19.00 %
Louise Bouvier	19.00 %
Kristy Roberts	33.34 %
Fred Erler	100.00 %

## APPENDIX G

### ALS Geochemical Soil and Silt Samples, Location and Sample Description

VA16154065 - Finalized

CLIENT : "ATLEXP - Atled Exploration Management Ltd"

# of SAMPLES : 33

DATE RECEIVED : 2016-09-12 DATE FINALIZED : 2016-10-07

PROJECT : "Kelli"

CERTIFICATE COMMENTS : "ALL:NSS is non-sufficient sample. "

PO NUMBER : " "

Au-TL44

SAMPLE	Au	ppb	waypoint	topo. slope	veg	text	soil type	depth in	colour	drain	remarks
MAP1 S01	0.014	14	393	+45°	sp, gr	rock chips	B	.15	grey	dry	soil on clastic- inst area
S02	NSS		396	+45°	sp, gr	"	B?	.15	grey	dry	poor soil
S03	0.094	94	406	+30°	sp	sandy silt	B	.10	br	dry	brown soil
S04	0.349	349	411	+10°	grass Juniper	chips silt	B	.10	br	dry	alterred Hnl ffdike
S05	0.053	53	425	+50°	talus	sandy	B	.10	br	dry	mix soil/chips
S06	0.136	136	429	+20°	alder	soil	B	.10	br	damp	contact, chl sch
S07	0.111	111	432	+25°	talus	rk chips	B	.15	br	dry	chl sch
S08	0.019	19	433	+15°	talus	rk chip sandy	-	.20	br grey	dry	chl sch
S09	0.042	42	435	+50°	talus	chips sandy	B	.10	grey	dry	thin soil, roots
S010	0.165	165	482	+30°	talus	chips sandy	B	.10	grey br	dry	talus - fault zone?
MAP2 S011	0.274	274	454	+30°	alder	silt sand	B	.15	brown	damp	side channel
S012	0.031	31	467	+3°	alder	sandy	B	.10	brown	damp	base of oc
MAP1 S013	0.017	17	485	+15°	alder	clay	B	.10	brown grey	damp	fine material from around gtz clot
S014	0.009	9	487	+15°	alder	sticky crumbly	B	.10	black	damp	mylonized
S015	0.011	11	507	+20°	alder	sticky	B	.15	dark brown	damp	stream gully
S016	0.014	14	508	+45°	al, sp.	chips fines	talus slope	.15	ox br	dry	below outcrop
S017	0.036	36	509	+40°	talus	"	"	.15	ox br	dry	edge of outcrop
off MAP1 S018	0.565	565	510	+30°	alder sp	crumbly	B?	4m	dark brown	damp	good soil sample man dug pit?
" S019	0.051	51	511	+25°	Juniper willow	rocky sandy	B	.15	orange ox	dry	outcrop area, spruce
" S020	NSS		512	+20°	spruce grass	rocky	-	.30	br	dry	tree roots
" S021	0.017	17	513	+45°	tail spruce	pebbly sandy	B	.15	dark br	damp	steep gully, stream
MAP1 S022	0.451	451	537	+35°	talus	talus fines	fines	.10	ox brown	dry	edge of talus
S023	0.086	86	538	+35°	talus	"	"	.10	"	"	footwall gtz vein - vol.
S024	0.077	77	539	+30°	dry stream	silty sand	"	.10	br	"	dry stream channel
S025	0.281	281	543	+20°	talus	chips sand	"	.10	ox brown	dry	below Oc fines
S026	0.085	85	547	+40°	talus slope	fines chips	"	.15	orange ox	dry	below gtz veins
S027	0.025	25	549	+35°	grass alder	"	"	.15	"	dry	good soil on edge of outcrop
S028	0.068	68	551	+45°	alder	"	sandy	.10	dark brown	damp	good soil
S029	0.095	95	553	+30°	open slope	"	B	.15	grey brown	damp	directly above cliff rim
S030	0.163	163	554	+45°	Juniper	chips sand	B	.15	"	dry	-60° down slope +45° up slope
S031	0.127	127	555	+40°	talus	"	-	.20	"	dry	directly below Oc, pyrite
S032	0.52	52	559	+35°	talus	fines	-	.10	"	"	talus filled gully
S033	0.044	44	562	+15°	slide	mud	mud	.15	grey	damp	slide



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 702 - 181 ATHLETES WAY  
 VANCOUVER BC V5Y 0E5

Page: 2 - A  
 Total # Pages: 2 (A)  
 Plus Appendix Pages  
 Finalized Date: 7-OCT-2016  
 Account: ATLEXP

Project: Kelli

**CERTIFICATE OF ANALYSIS VA16154065**

Sample Description	Method Analyte Units LOR	WEI- 21 Rec'd Wt. kg	Au- TL44 Au ppm
S01		0.16	0.014
S02		0.24	NSS
S03		0.14	0.094
S04		0.22	0.349
S05		0.18	0.053
S06		0.38	0.136
S07		0.16	0.111
S08		0.18	0.019
S09		0.08	0.042
S010		0.16	0.165
S011		0.20	0.274
S012		0.16	0.031
S013		0.22	0.017
S014		0.26	0.009
S015		0.10	0.011
S016		0.20	0.014
S017		0.18	0.036
S018		0.14	0.565
S019		0.14	0.051
S020		0.12	NSS
S021		0.20	0.017
S022		0.18	0.451
S023		0.18	0.086
S024		0.18	0.077
S025		0.16	0.281
S026		0.18	0.085
S027		0.20	0.025
S028		0.14	0.068
S029		0.16	0.085
S030		0.22	0.163
S031		0.18	0.127
S032		0.16	0.520
S033		0.20	0.044

VA16154054 - Finalized

CLIENT : "ATLEXP - Atled Exploration Management Ltd"

# of SAMPLES : 41

DATE RECEIVED : 2016-09-12 DATE FINALIZED : 2016-10-03

PROJECT : "Kelli"

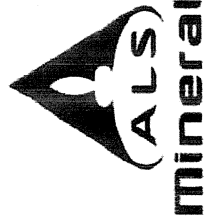
CERTIFICATE COMMENTS : "ALL:NSS is non-sufficient sample. "

PO NUMBER : " "

Au-TL44 Au-AROR44

SAMPLE	Au	Au	waypoint	topo slope	veg'	text	remarks
DESCRIPC	ppm	ppb					
SI1 MAP3	0.01	10	279	+2°	Msk, SP	va	good silt, vol ash 10%, flowing stream
SI2	0.03	30	280	+2°	"	"	" " "
SI3	0.005	5	309	+3°	Msk, Sbsp	organic	poor silt, small flow on muck
SI4	0.008	8	310	+3°	Msk, gr	va, sand	20-30% va, sandy silt
SI5	0.022	22	311	+3°	Msk, gr	va, sand	10% va, flack, sandy silt, good flow
SI6	NSS	(106)	312	+10°	Msk, SP	pebbly sandy	poor silt, small flow, 10% va
SI7	0.047	47	313	+15°	Msk, Sbsp	"	small spring base of slope 20% ash
SI8	NSS	(2)	317	+15°	"	"	poor silt
SI9	NSS	(2)	318	+10°	al, Msk	"	cobble boulder gravel, small stream
SI10	0.006	6	319	+5°	al, Msk	sandy pebbles	broad gully, small stream 2-3gpm
SI11	NSS	(2)	328	+10°	buck br al, Msk	poor silt	base of slope
SI12	0.004	4	329	+10°	ald, Sbsp	better silt	va 15%, No Oc, W side gully
SI13	NSS	(1)	330	+3°	Msk, Sbsp	va	good flow 3-4gpm, poor silt
SI14	0.008	8	334	+3°	Msk, Sbsp	poor silt	no gravel, silt and ash 20gpm
SI15	NSS	(3)	361	+3°	Msk tall sp	poor silt	gravel pebbles, good flow
SI16	NSS	(34)	362	+3°	"	-	good sandy-silt sample
SI17	0.013	13	368	+5°	alder tall sp	dry	3 large dry outwash channels - fan
SI18	0.022	22	375	+5°	Msk al, Sbsp	10% va	good stream channel, sandy silt
SI19	0.059	59	378	+7°	tall sp	5% va	flash flood fan dry
SI20	0.013	13	379	+6°	" "	5% va sandy 15% va	silt on va/ash, poor sample dry
SI21	0.031	31	416	+3°	" "	sandy 10% va	dry stream
SI22	NSS	5	417	+3°	alder	"	pebbly-sand, stream
SI23	NSS	2	422	+10°	alder	pebbly sand	into large creek valley, large boulder cobbles, 9% boulders
SI24	0.015	15	424	+8°	"	"	good silt from dry creek bed
SI25	0.027	27	436	+50°	spruce	"	dry
SI26 MAP2	0.118	118	441	+3°	thick al	good silt	dry stream channel on bench
SI27	0.366	366	442	+20°	"	"	in dry stream channel base +25° slope
SI28	0.354	354	443	+30°	alder Msk	"	damp brown silt
SI29	0.746	746	445	+25°	alch, Msk	"	grey-brown silty soil damp (slide)
SI30	0.182	182	448	+35°	al, grass	poor silt	10% va, poor silt-soil talus, damp
SI31	>1.00	1,610	449	+35°	"	"	10% va, damp, sandy silt-soil
SI32	0.055	55	451	+30°	alder	"	" " " angula talus
SI33	NSS	(148)	454	+30°	"	"	10% va, brown damp soil-silt
SI34	0.063	63	455	+15°	thick alder	"	dry silt-soil near base of slope
SI35	0.028	28	459	+15°	"	"	bottom of stream gully - E edge slide fan
SI36	0.035	35	369	+5°	Msk	dry silt	369 out of sequence Map 3 deeply incised stream channel
SI37	0.054	54	462	+10°	Msk Sbsp	wet silt	new creek / dry cutting 2011 slide
SI38	0.307	307	463	+30°	alder	"	small stream - outcrop area
SI39	0.063	63	467	"	"	"	Spring outcrop area
SI40	NSS	(7)	468	+10°	"	"	trickle at base of outcrop
SI41	0.582	582	469	+10°	"	"	small stream

( ) regrind



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 Plus Appendix Pages  
 Finalized Date: 3 - OCT - 2016  
 Account: ATLEXP

Project: Kelli

**CERTIFICATE OF ANALYSIS VA16154054**

Sample Description	Method Analyte Units LOR	WEI- 21		Au- TL44		Au- AROR44	
		Recvd Wt. kg	0.02	Au ppm	0.001	Au ppm	0.01
S11		0.12	0.010				
S12		0.24	0.030				
S13		0.16	0.005				
S14		0.16	0.008				
S15		0.20	0.022				
S16		0.18	NSS				
S17		0.14	0.047				
S18		0.18	NSS				
S19		0.24	NSS				
S10		0.18	0.006				
S11		0.14	NSS				
S12		0.18	0.004				
S13		0.18	NSS				
S14		0.12	0.008				
S15		0.22	NSS				
S16		0.32	NSS				
S17		0.38	0.013				
S18		0.14	0.022				
S19		0.28	0.059				
S20		0.08	0.013				
S21		0.26	0.031				
S22		0.28	NSS				
S23		0.24	NSS				
S24		0.14	0.015				
S25		0.12	0.027				
S26		0.12	0.118				
S27		0.30	0.366				
S28		0.24	0.354				
S29		0.30	0.746				
S30		0.16	0.182				
S31		0.24	>1.00			1.61	
S32		0.20	0.055				
S33		0.12	NSS				
S34		0.24	0.063				
S35		0.22	0.028				
S36		0.28	0.035				
S37		0.24	0.054				
S38		0.16	0.304				
S39		0.24	0.063				
S40		0.20	NSS				

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*



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Project: Kelli

**CERTIFICATE OF ANALYSIS VA16154054**

Method Analyte Units LOR	WEI- 21 Recvd Wt. kg	Au- TL44 Au ppm	Au- AROR44 Au ppm
SI41	0.02	0.001	0.01
	0.22	0.582	





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 Account: ATLEXP

Project: Kelli

**CERTIFICATE OF ANALYSIS VA16168481**

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Air-TL44 Au ppm 0.001	ppb	Waypoint
S16		0.16	0.106		
S18		0.16	0.002		
S19		0.22	0.002		
S11		0.10	0.002		
S13		0.16	0.001		
S15		0.18	0.003		
S16		0.30	0.034	34	
S12		0.24	0.005		
S123		0.22	0.002		
S133		0.10	0.148	148	
S140		0.18	0.007		

## APPENDIX H

ALS Rock Sample Analysis , Location and Description



**minerals**

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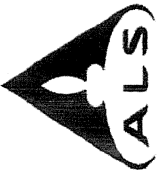
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**CERTIFICATE OF ANALYSIS VA16154052**

Sample Description	Method Analyte Units LOB#	WEI- 21 Recvd Wt. kg 0.02	AU-AA2# Au ppm 0.005	PPb BY	Way point
001751	1	1.54	0.005	5	below Fremblay screens Middle Canyon
001752	2	2.48	0.026	26	250
001753	3	3.90	0.439	439 (351)	251
001754	4	4.44	0.199	199 (271)	347
001755	5	1.02	0.036	36	348 (P)
001756	6	1.64	0.017	17	348a
001757	7	1.50	<0.005	< 5	437
001758	8	1.26	<0.005	< 5	460
001759	9	1.36	<0.005	< 5	465
001760	10	1.52	0.015	15	543
001761	11	1.86	0.008	8	545
001762	12	1.34	<0.005	< 5	546
001763	13	1.40	0.089	89	557
001764	14	1.12	0.030	30	451
001765	15	3.62	0.089	69	451
001766	16	2.86	0.007	7	"
001767	17	5.64	0.281	281	"
001768	18	2.54	0.014	14	471
001769	19	3.04	0.046	46	"
001770	20	4.30	0.035	35	476
001771	21	2.90	0.065	65	"
001772	22	1.98	0.087	87	"
001773	23	2.52	0.071	71	"
001774	24	3.24	0.222	222	"
001775	25	3.50	0.295	295	"

Middle Canyon qtz vein zone  
 Vertical fracture  
 Middle Canyon, clots epidote, qtz, veining chl sch. z-3% Py  
 chlorite sch, unts, sch, calcite, Hcl+ + Na Mag Py 1%  
 sil ground mass with black layers, Py 2%, thin carb, inclusions 5% Hcl+ +  
 highly ox, pyritic qtz boulders  
 dark massive ox, qtz veining, Py 3%, Hcl+ + (so25 - 281 ppb)  
 chl carb sch, Py 3%, mag, Hcl+ + impure limst  
 directly below screen, float dense black Py 3% mag+ + Hcl -  
 orange on stained ox, qtz veining mag+ + +, Hcl+ +  
 sil ox zone in creek Py 3-5%  
 Footwall Sample (T)  
 Hanging Wall Sample (C) ↑  
 Lower Canyon Trench  
 " 19'  
 22'-1-22'-6  
 25'  
 19'-3' to 20'-3'  
 27'-7' to 28'-2'  
 28'-8' to 29'-5'  
 2'-6" to 5 m  
 Lower Canyon Bulldozer Trench  
 Page 17 report / MARI  
 (R. 16-17) W.P. 481



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Page: 1  
 Total # Pages: 2 (A)  
 Plus Appendix Pages  
 Finalized Date: 5-OCT-2016  
 Account: ATLEXP

**CERTIFICATE VA16154052**

This report is for 25 Rock samples submitted to our lab in Vancouver, BC, Canada on 12-SEP-2016.

The following have access to data associated with this certificate:  
 G. GUTRATH

**SAMPLE PREPARATION**

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% < 2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% < 75 um

**ANALYTICAL PROCEDURES**

ALS CODE	DESCRIPTION	INSTRUMENT
AU-AA24	Au 50g FA AA finish	AAS

To: ATLED EXPLORATION MANAGEMENT LTD  
 ATTN: G. GUTRATH  
 702-181 ATHLETES WAY  
 VANCOUVER BC V5Y 0E5

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.  
 \*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

**Signature:**

Colin Ramshaw, Vancouver Laboratory Manager



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Page: 2 - A  
 Total # Pages: 2 (A)  
 Plus Appendix Pages  
 Finalized Date: 5- OCT - 2016  
 Account: ATLEXP

**CERTIFICATE OF ANALYSIS VA16154052**

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. Kg 0.02	Aur- AAZ4 Au ppm 0.005
001751		1.54	0.005
001752		2.48	0.026
001753		3.90	0.439
001754		4.44	0.199
001755		1.02	0.036
001756		1.64	0.017
001757		1.50	<0.005
001758		1.26	<0.005
001759		1.36	<0.005
001760		1.52	0.015
001761		1.86	0.008
001762		1.34	<0.005
001763		1.40	0.089
001764		1.12	0.030
001765		3.62	0.069
001766		2.86	0.007
001767		5.64	0.281
001768		2.54	0.014
001769		3.04	0.046
001770		4.30	0.035
001771		2.90	0.065
001772		1.98	0.087
001773		2.52	0.071
001774		3.24	0.222
001775		3.50	0.295

VA16154052 - Finalized

CLIENT : "ATLEXP - Atled Exploration Management Ltd"

# of SAMPLES : 25

DATE RECEIVED : 2016-09-12 DATE FINALIZED : 2016-10-05

PROJECT : " "

CERTIFICATE COMMENTS : ""

PO NUMBER : " "

Au-AA24

SAMPLE Au

DESCRIPTIC ppm

1751	0.005
1752	0.026
1753	0.439
1754	0.199
1755	0.036
1756	0.017
1757	<0.005
1758	<0.005
1759	<0.005
1760	0.015
1761	0.008
1762	<0.005
1763	0.089
1764	0.03
1765	0.069
1766	0.007
1767	0.281
1768	0.014
1769	0.046
1770	0.035
1771	0.065
1772	0.087
1773	0.071
1774	0.222
1775	0.295

# APPENDIX I

## 2016 Waypoint List

# Waypoint List

Map Name : Blank Map  
 Map File :

Datum : NAD83

Waypoint File : C:\OziExplorer\Data\16-08 kelli cl gr yt.wpt

2016-09-14 8:54:32 PM

Num	Name	Page	Zone	Easting	Northing	Alt(m)	Silt Description	Soil	Rock
251	250	1	7V	573216	6824339	1036			
252	251	2	7V	573232	6824322	1038			1751 5 RPB
253	252		7V	573230	6824318	1033			1752 26 RPB
254	253		7V	573227	6824315	1032			
255	254		7V	573222	6824316	1030			
256	255		7V	573220	6824315	1032			
257	256		7V	573219	6824305	1033			
258	257		7V	573210	6824305	1027			
259	258		7V	573198	6824317	1029			
260	259		7V	573198	6824318	1030			
261	260	3	7V	573210	6824288	1035			
262	261		7V	573182	6824296	1037			
263	262		7V	573184	6824299	1038			
264	263		7V	573181	6824297	1039			
265	264		7V	573159	6824279	1044			
266	265		7V	573184	6824277	1035			
267	266		7V	573157	6824278	1042	Poor (1)		
268	267		7V	573172	6824267	1040			
269	268		7V	573172	6824273	1040			
270	269		7V	573175	6824276	1040			
271	270		7V	573173	6824266	1048			
272	271		7V	573179	6824288	1052			
273	272		7V	573179	6824366	1054			
274	273		7V	573204	6824325	1057			
275	274		7V	573205	6824311	1055			
276	275		7V	573214	6824326	1054			
277	276		7V	573213	6824352	1056			



Waypoint List continued .....

Num	Name	Zone	Easting	Northing	Alt(m)	Silt Description	Soil	Rock	Map #
278	277	7V	574439	6825896	849				
279	278	7V	574454	6825896	848				
280	279	7V	574452	6825896	848				
281	280	7V	574439	6825872	853				
282	281	7V	574246	6825157	898				
283	282	7V	574247	6825158	898				
284	283	7V	574569	6824990	906				
285	284	7V	574755	6824657	943				
286	285	7V	574901	6824530	952				
287	286	7V	574910	6824513	962				
288	287	7V	574933	6824495	971				
289	288	7V	574974	6824469	975				
290	289	7V	575002	6824445	974				
291	290	7V	575053	6824523	959				
292	291	7V	575084	6824576	933				
293	292	7V	575076	6824855	918				
294	293	7V	575042	6824827	920				
295	294	7V	575023	6824826	920				
296	295	7V	574802	6824681	945				
297	296	7V	574686	6824905	926				
298	297	7V	574687	6824906	926				
299	AAA	7V	574663	6824922	924				
300	299	7V	574570	6824991	915				
301	300	7V	573709	6825020	947				
302	301	7V	573706	6825019	947				
303	302	7V	574248	6825153	896				
304	303	7V	574968	6824810	912				
305	304	7V	575209	6824802	903				
306	305	7V	575236	6824822	904				
307	306	7V	575236	6824821	909				
308	307	7V	575236	6824821	905				
309	308	7V	575449	6825153	885				
310	309	7V	575560	6825089	879	SS: 309 5ppb			
311	310	7V	575535	6825053	883	SS: 310 8ppb			
312	311	7V	575628	6825046	883	SS: 311 22ppb			
313	312	7V	575720	6824982	883	SS: 312 (106ppb)			
314	313	7V	575668	6824935	897	SS: 312 (47ppb)			
315	314	7V	575746	6824929	892				
316	315	7V	574934	6824706	935				
317	316	7V	575097	6824598	927				
318	317	7V	575115	6824568	926				
319	318	7V	575332	6824390	944	2ppb			
320	319	7V	575359	6824383	947	2ppb			
321	320	7V	575409	6824331	960	6ppb			
322	321	7V	575386	6824272	979				
323	322	7V	575381	6824181	985				
324	323	7V	575383	6824182	984	46656			
325	324	7V	575375	6824172	986				
326	325	7V	575423	6824247	973				
327	326	7V	575435	6824273	981				
328	327	7V	575490	6824362	945				
329	328	7V	575465	6824363	943				
330	329	7V	575459	6824361	943				
331	330	7V	575533	6824445	933				
332	331	7V	575602	6824573	920				
333	332	7V	575612	6824561	920				
334	333	7V	575610	6824563	922				
335	334	7V	575692	6824699	914				
336	335	7V	575737	6824774	900				
337	336	7V	575753	6824790	897				
338	337	7V	575758	6824798	898				
339	338	7V	575821	6824941	885				
340	339	7V	575336	6824728	916				
341	340	7V	574797	6824724	935				
342	341	7V	573241	6824354	1019				
343	342	7V	573245	6824357	1018				
344	343	7V	573261	6824362	1016				
345	344	7V	573256	6824357	1017				
346	345	7V	573254	6824352	1018				
347	346	7V	573252	6824347	1018				
348	347	7V	573218	6824333	1065				
349	348	7V	573225	6824323	1041				
348a								1753 439ppb	(3)
								1754 199ppb	(4)
								1755 36ppb	(5)

Waypoint List continued .....

Num	Name	specimen	Zone	Easting	Northing	Alt(m)	Silt Description	Soil	Rock
349	349		7V	573216	6824342	1039			
350	350		7V	573244	6824372	1041			
351	351		7V	573230	6824351	1039			
352	352		7V	573232	6824360	1039			
353	353		7V	573236	6824362	1038			
354	354		7V	573238	6824349	1034			
355	355		7V	573241	6824361	1034			
356	356		7V	573205	6824323	1033			
357	357		7V	573183	6824305	1037			
358	358		7V	573177	6824296	1037			
359	359		7V	573167	6824296	1039			
360	360		7V	573158	6824281	1040			
361	361		7V	574656	6824636	943			
362	362		7V	574671	6824684	943			
363	363		7V	574823	6824580	952			
364	364	Dirt	7V	574891	6824681	939			
365	365		7V	574928	6824704	936			
366	366		7V	575533	6824435	932			
367	367		7V	576046	6824203	960			
368	368		7V	576263	6824103	963			
369	369		7V	576286	6824093	961			
370	370		7V	576330	6824069	962			
371	371		7V	576420	6824009	963			
372	372		7V	576418	6823978	961			
373	373		7V	576420	6823976	960			
374	374		7V	576381	6823943	966			
375	375		7V	576380	6823940	967			
376	376		7V	576246	6823715	1010			
377	377		7V	576243	6823710	1007	#3 clean		
378	378		7V	576124	6823860	991			
379	379		7V	575658	6824263	964			
380	380		7V	573300	6824632	950			
381	381		7V	573291	6824646	1018			
382	382		7V	573289	6824640	1018			
383	383		7V	573286	6824642	1021			
384	384	I	7V	573256	6824631	1042			
385	385		7V	573255	6824630	1043			
386	386		7V	573253	6824634	1046			
387	387		7V	573225	6824637	1063			
388	388		7V	573244	6824660	1053			
389	389		7V	573245	6824654	1050			
390	390		7V	573259	6824659	1057			
391	391		7V	573264	6824675	1063			
392	392		7V	573271	6824678	1060			
393	393		7V	573272	6824669	1051			
394	394		7V	573301	6824694	1041		1	14 pfb
395	395		7V	573302	6824695	1042			
396	396		7V	573323	6824683	1034			
397	397		7V	573358	6824689	1027			
398	398		7V	573362	6824687	1019			
399	399		7V	573390	6824671	995			
400	400		7V	573397	6824664	985			
401	401		7V	573242	6824353	1033			
402	402		7V	573182	6824291	1042			
403	403		7V	573166	6824271	1050			
404	404		7V	573175	6824286	1050			
405	405		7V	573175	6824290	1051			
406	406		7V	573181	6824286	1058			
407	407		7V	573180	6824284	1049		3	
408	408		7V	573188	6824306	1046			
409	409		7V	573205	6824309	1039			
410	410		7V	573217	6824318	1042			
411	411		7V	573217	6824341	1047			
412	412		7V	576234	6823852	978			349 pfb
413	413		7V	576243	6823706	996			
414	414		7V	576183	6823613	1023			
415	415		7V	576137	6823551	1020			
416	416		7V	576088	6823482	1029			
417	417		7V	576043	6823381	1044			
418	418		7V	575966	6823311	1063			
419	419		7V	575768	6823004	1217			
420	420		7V	575672	6823035	1213			

Waypoint List continued .....

PC SOURCE

Num	Name	Specimen		Easting	Northing	Alt(m)	Silt Description	Soil		Rock
		Zone						#	ppb.	
422	421	2	7V	575658	6823035	1204				
423	422		7V	575593	6823064	1161				
424	423	3	7V	575596	6823072	1163				
425	424		7V	575628	6823210	1141	Aug 13 P15			
426	425		7V	573190	6824297	1056				
427	426		7V	573175	6824276	1049				
428	427		7V	573196	6824300	1045				
429	428		7V	573199	6824313	1042				
430	429		7V	573207	6824313	1059				
431	430		7V	573202	6824306	1079				
432	431		7V	573201	6824310	1075				
433	432		7V	573197	6824311	1073			1756 17ppb	
434	433		7V	573215	6824307	1075				
435	434	4	7V	573216	6824307	1081				
436	435	5	7V	573207	6824312	1075				
437	436		7V	573207	6824292	1070				
438	437	6	7V	573221	6824284	1066	Aug 14 P17a		1757 45ppb	
439	438		7V	572780	6823567	1179				
440	439		7V	572776	6823596	1139				
441	440		7V	572769	6823584	1139				
442	441	Si 26	7V	572773	6823534	1151	118ppb ✓			
443	442	Si 27	7V	572782	6823494	1163	360ppb ✓			
444	443	Si 28	7V	572801	6823480	1173	354ppb ✓			
445	444		7V	572807	6823475	1180				
446	445	Si 29	7	7V	572818	6823471	1188	746ppb		
447	446		7V	572822	6823468	1190				
448	447		7V	572871	6823452	1220				
449	448	Si 30		7V	572850	6823424	1217	182ppb ✓		
450	449	Si 31		7V	572846	6823427	1215	1,610ppb ✓		
451	450		8	7V	572841	6823433	1212			
452	451	Si 32	(9)	7V	572827	6823424	1206	55ppb ✓	1764 30ppb	
453	452		(10)	7V	572824	6823435	1199			
454	453			7V	572810	6823442	1191			
455	454		11	7V	572803	6823451	1180	✓		
456	455			7V	572773	6823481	1161	✓		
457	456			7V	572715	6823495	1148	✓		
458	457			7V	572635	6823398	1161	✓		
459	458			7V	572641	6823382	1164	✓		
460	459			7V	572670	6823372	1171	✓		
461	460		12	7V	572681	6823354	1177	✓		
462	461			7V	572696	6823342	1183	✓		
463	462			7V	572718	6823307	1198			
464	463	Si 38		7V	572729	6823301	1204	304ppb ✓		
465	464			7V	572672	6823368	1172			
466	465		13	7V	572672	6823368	1172	✓		
467	466			7V	572608	6823305	1173	✓		
468	467			7V	572606	6823309	1177			
469	468			7V	572583	6823279	1184	✓		
470	469	Si 41		7V	572592	6823254	1194	582ppb		
471	470	Lower Canyon		7V	573419	6824685	974	Aug 15 P25 = 0	Bldg. Trench Mapping 1767 281ppb	
472	471			7V	573418	6824690	975			
473	472			7V	573430	6824693	976	A		
474	473			7V	573428	6824698	979			
475	474			7V	573427	6824705	980			
476	475			7V	573429	6824705	979			
477	476			7V	573434	6824715	980			
478	477			7V	573441	6824729	986			
479	478			7V	573450	6824738	985	= 24m		
480	479			7V	573451	6824735	974			
481	480			7V	573461	6824752	972			
482	481	RS 16-P		7V	573451	6824739	971	Aug 16 P30		
483	482	1775		7V	573395	6824673	985			
484	483			7V	573392	6824663	984			
485	484			7V	573392	6824663	984			
486	485			7V	573445	6824738	974	13 17		
487	486			7V	573445	6824734	974			
488	487			7V	573455	6824742	973	14		
489	488			7V	573462	6824748	972			
490	489			7V	573310	6824620	988			
491	490			7V	573300	6824602	987			
492	491			7V	573305	6824590	989			
493	492			7V	573288	6824562	993			



Waypoint List continued .....

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Num	Name	Rock SP	# Zone	Easting	Northing	Alt(m)	Silt Description	Soil	Rock
494	493		7V	573275	6824514	1001			
495	494	14	7V	573278	6824499	1002			
496	495		7V	573278	6824495	1004			
497	496		7V	573282	6824483	1005			
498	497		7V	573281	6824481	1005			
499	498		7V	573279	6824467	1008			
500	499		7V	573285	6824466	1009			
501	500		7V	573283	6824462	1011			
502	501		7V	573282	6824451	1012			
503	502		7V	573284	6824428	1018			
504	503		7V	573280	6824414	1019			
505	504		7V	573278	6824463	1018			
506	505		7V	573279	6824469	1018			
507	506		7V	573007	6824121	1072			
508	507		7V	572999	6824124	1060		#15 15 ppb	
509	508		7V	573011	6824135	1098		16 ppb	
510	509		7V	572972	6824143	1111			
511	510		7V	572968	6824150	1113		#18 565 ppb	
512	511	15	7V	572972	6824159	1115			
513	512		7V	573002	6824188	1124			
514	513		7V	573024	6824212	1107			
515	514		7V	573034	6824209	1095		#21	
516	515		7V	573035	6824211	1094			
517	516		7V	573046	6824211	1089			
518	517		7V	573057	6824228	1091			
519	518		7V	573049	6824197	1083			
520	519		7V	573051	6824204	1083			
521	520		7V	573053	6824200	1079			
522	521		7V	573066	6824181	1060			
523	522		7V	573254	6824317	929			
524	523		7V	573250	6824325	929	Aug 17 P28		
525	524		7V	573242	6824354	977			
526	525		7V	573220	6824335	1031			
527	526		7V	573198	6824319	1034			
528	527		7V	573189	6824306	1037			
529	528		7V	573180	6824298	1039			
530	529		7V	573174	6824292	1041			
531	530		7V	573159	6824282	1043			
532	531		7V	573153	6824274	1045			
533	532		7V	573145	6824274	1047			
534	533		7V	573127	6824258	1051			
535	AA4		7V	573121	6824251	1053			
536	534		7V	573128	6824257	1053			
537	535		7V	573124	6824247	1051			
538	536		7V	573126	6824265	1056			
539	537		7V	573121	6824275	1061			
540	538		7V	573132	6824289	1067			
541	539		7V	573219	6824336	1038			
542	540		7V	573231	6824317	1038			
543	541		7V	573234	6824318	1041			
544	542		7V	573241	6824325	1043			
545	543	16	7V	573245	6824332	1041			1760 15 ppb
546	544		7V	573245	6824325	1044			
547	545	17	7V	573252	6824325	1049			1761 8 ppb
548	546	18	7V	573258	6824318	1052			1762 45 ppb
549	547		7V	573074	6824187	1057	Aug 18 p42	26	85 ppb
550	548		7V	573065	6824226	1095			
551	549		7V	573051	6824231	1106			
552	550		7V	573068	6824253	1104			
553	551		7V	573100	6824284	1101			
554	552		7V	573105	6824309	1105			
555	553		7V	573109	6824309	1102			
556	554		7V	573130	6824318	1095			
557	555		7V	573093	6824312	1118			
558	556		7V	573241	6824356	995	Aug 19 p44		
559	557	13	7V	573239	6824326	1024			1763 89 ppb
560	558		7V	573241	6824329	1026			
561	559		7V	573242	6824330	1027			
562	560		7V	573243	6824334	1031			
563	561		7V	573254	6824350	1029			
564	562		7V	573259	6824351	1029			
565	563		7V	573236	6824323	1031		33	44 ppb
566	564		7V	573223	6824318	1032			
567	565		7V	573205	6824313	1034			P45