2013 Report

ON THE

YELLOWJACKET Property

Atlin Mining District

Mapsheet NTS 10412E

Center of Work

Latitude 59° 35’ N, Longitude 133° 32’W

UTM NAD 83 N 6607172 / E 581908

Prepared for

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INTRODUCTION

The Yellowjacket property includes several known occurrences of gold hosted in rocks spatially associated with listwanite (quartz – Fe-carbonate ± talc ± Cr-mica) alteration of harzburgite and andesitic volcanic rocks along the Pine Creek fault zone and subsidiary structures, near Atlin, BC. The Yellowjacket occurrence is the most well-explored and developed of the occurrences on the Property. A resource of 734,082 total contained grams Au (24,000 ounces) in 133,000 tonnes at 5.8 g/t Au using a 1.5 g/t cut-off was calculated by Barry Price and C. Gallagher (Dandy and Price, 2010) in the area of the original Yellowjacket occurrence, an area that has now been partially excavated as the Pine pit.

The Rock of Ages occurrence lies approximately 750 metres west of the Pine pit, along the Pine Creek fault zone. Originally report in 1903 (Prior, 1903) it has seen more recent geological work since 2010 when bedrock in the area was exposed by placer mining operations. The Rock of Ages occurrence is similar in geological character to the Yellowjacket (Pine pit) area, although with less sampled gold discovered to-date. Both lie along the Pine Creek fault zone, hosted by similar rock types with gold occurring in, or spatially associated with listwanite-altered rocks.

Geological mapping of parts of the Yellowjacket property has been carried out by Athabasca Nuclear Corp and its predecessors. Due to the high degree of cover on the property, particularly the gravels along Pine Creek that covers the Pine Creek fault zone, detailed mapping projects have been conducted in focused areas when new bedrock is exposed, either through excavations related to bulk sampling programs (Pine Pit; Dandy, 2006; Katay, 2010; Dandy and Price, 2010), or through placer mining operations (Rock of Ages; Devine, 2010 and 2012). Using these opportunities to look at bedrock is cost-effective way to gain valuable information about the geological relationships, and particularly the structural relationships along the Pine Creek fault zone. In most cases, bedrock is well-exposed for only a brief period of time, before being covered again during reclamation efforts.

In 2013 there were three new exposures of bedrock on the Yellowjacket property that were uncovered by placer mining operations, two in the Rock of Ages area, and one on lowermost Spruce Creek. In the Rock of Ages pit, a placer miner was using a small hoe to dig along the very uneven bedrock floor of the pit; he uncovered several new bedrock exposures which add to the 2012 mapping of the Rock of Ages area. At another new excavation, across the road from the Rock of Ages pit in the area of the old town of Discovery, a placer miner uncovered a fault zone in bedrock that runs parallel to the main Pine Creek structure. And in the southwestern part of the Property, several recent exposures were identified by the placer miner who holds the placer tenures in that area.

These new bedrock exposures were mapped in 2013 and the results are summarized in this report. They add to the on-going compilation of bedrock geology by Athabasca Nuclear Corporation on the Yellowjacket property.

LOCATION, ACCESS AND PHYSIOGRAPHY

The claims are located along the Pine Creek Valley, 7 to 12 kilometres east of the community of Atlin in northwestern British Columbia. The claims are centred at latitude 59°35'N and longitude 133°32'E within NTS map sheets 104N11 and 12.

The main mineralized zone of interest on the Yellowjacket Property is the Yellowjacket Gold Zone ("YGZ"). The YGZ is located near the centre of the claim holdings, along the Pine Creek Valley, which bisects the claim block in an east-west direction. The YGZ is covered by five or more metres of redistributed boulders and gravel from historic placer mining. Two additional historic workings (BC Ministry of Energy and Mines Minfile database), the Rock of Ages and Red Jacket Zones are also located along Pine Creek. The exact location of the Red Jacket Zone is not currently known, due to masking of bedrock by placer mining tailings. The Rock of Ages Zone is located approximately 1.5 kilometres west of the YGZ.

Access to the Yellowjacket Property is via the Surprise Lake Road, east from Atlin for 7 kilometres. The Property lies along the Pine Creek Valley, parallel to Surprise Lake Road, for approximately 6.5 kilometres.

The Property lies in an area of moderate relief, in a broad valley between mountains, with elevation ranging between 810 and 1060 metres along the Pine Creek valley. In the far southeastern corner of the Property the elevation increases up slope to 1340 metres. Outcrop is very limited, generally confined to creek gullies, but occasionally observed in road cuts and along some of the steeper slopes. The tree line is at approximately 1370 metres on north facing slopes and 1525 metres on south facing slopes. Below 1370 metres the valleys are forested with lodgepole pine, black spruce, aspen and scrub birch. Mountain alder and willow grow near streams with stunted buck brush covering the hills above treeline.

Figure 1. Map of British Columbia showing the location of the Yellowjacket Property in the far northwestern corner of the province.

TENURE

The Yellowjacket Property is located within the Atlin Mining Division in northwestern British Columbia, Canada. The claim block consists of 13 mineral claims totaling 7,025 contiguous hectares, two placer mining claims covering 100 hectares, and a placer mining lease covering 366 hectares. The cells are centered at Latitude 59°35'N and Longitude 133°32'E within NTS map sheets 104N11 and N12 (1:50,000), and 104N.052, .053, .062, and .063 (1:20,000 map sheets). All claims are located on crown land. The claims are listed in Table 1, below.

TABLE 1. Tenure Summary

Tenure No.	Claim Name	Owner Number	Tenure Type	Map Number	Issued Date	Expiry Date	Area (Ha)
508170	Pine	271708 (100%)	Mineral Claim	104N	2005/mar/02	2023/nov/30	196.56
327903	YJ	138703 (100%)	Mineral Claim	104N053	1994/jul/01	2023/nov/30	75
364968	EVA	138703 (100%)	Mineral Claim	104N063	1998/aug/25	2023/nov/30	375
367492	CELESTE	138703 (100%)	Mineral Claim	104N053	1998/dec/23	2023/nov/30	75
394473	YJ 1	138703 (100%)	Mineral Claim	104N053	2002/jun/18	2023/nov/30	500
394474	YJ 2	138703 (100%)	Mineral Claim	104N053	2002/jun/18	2023/nov/30	500
509377		138703 (100%)	Mineral Claim	104N	2005/mar/22	2023/nov/30	524.35
509379		138703 (100%)	Mineral Claim	104N	2005/mar/22	2023/nov/30	491.78
509382		138703 (100%)	Mineral Claim	104N	2005/mar/22	2023/nov/30	65.51
509383		138703 (100%)	Mineral Claim	104N	2005/mar/22	2023/nov/30	65.51
509384		138703 (100%)	Mineral Claim	104N	2005/mar/22	2023/nov/30	32.76
509385		138703 (100%)	Mineral Claim	104N	2005/mar/22	2023/nov/30	65.51
509387		138703 (100%)	Mineral Claim	104N	2005/mar/22	2023/nov/30	442.33
985002		138703 (100%)	Mineral Claim	104N	2012/may/09	2023/may/09	392.95
985003		138703 (100%)	Mineral Claim	104N	2012/may/09	2023/may/09	409.17
985022		138703 (100%)	Mineral Claim	104N	2012/may/09	2023/may/09	409.16
985042		138703 (100%)	Mineral Claim	104N	2012/may/09	2023/may/09	376.28
1013329		138703 (100%)	Mineral Claim	104N	2012/sep/29	2014/nov/30	523.39
1013336		138703 (100%)	Mineral Claim	104N	2012/sep/29	2014/nov/30	130.84
1013865		138703 (100%)	Mineral Claim	104N	2012/oct/20	2014/nov/30	392.7
1014040		138703 (100%)	Mineral Claim	104N	2012/oct/28	2014/nov/30	409.05
1015391		138703 (100%)	Mineral Claim	104N	2012/dec/19	2014/nov/30	130.77
1015813		138703 (100%)	Mineral Claim	104N	2013/jan/08	2014/nov/30	32.77
1015814		138703 (100%)	Mineral Claim	104N	2013/jan/08	2014/nov/30	32.78
1015816		138703 (100%)	Mineral Claim	104N	2013/jan/08	2014/nov/30	16.38
1016497		138703 (100%)	Mineral Claim	104N	2013/feb/01	2014/nov/30	360.17
350665	MARTHA II	138703 (100%)	Placer Claim	104N	1996/sep/19	2018/mar/01	50
379882	MARTHA 4	138703 (100%)	Placer Claim	104N	2000/aug/23	2018/mar/01	50
361733		138703 (100%)	Placer Lease	104N	1998/may/05	2014/may/05	366.15
					13	Mineral Claims	7025.74
					1	Placer Lease	366.15
					2	Placer Claims	100

Note: Data checked with Mineral Titles Online January 1, 2014

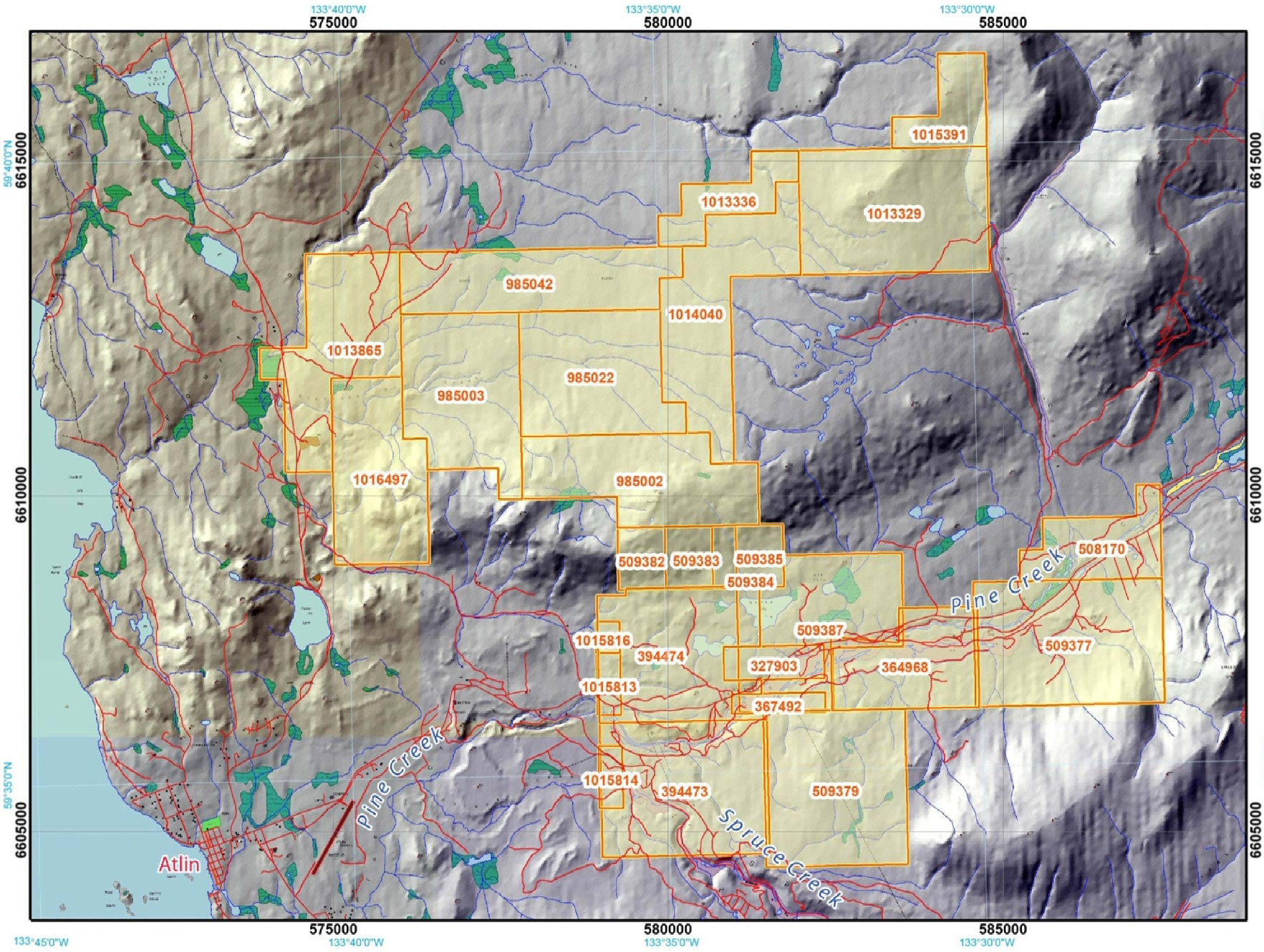


Figure 2. Tenure Location Map showing the location and limits of the Yellowjacket Property and included mineral claims. Background map is the a hillshade DEM and 1:20,000 scale TRIM data, from the TRIM Enhanced Basemap series. Scale: 1:75,000, UTM NAD 83 Zone 8.

The claims cover the Yellowjacket Gold Mine (hardrock mine). All permits have been obtained for exploration and small scale mining (75,000 tonnes per year or less). Other exploration targets within the claims are the Gold Run Zone and the historic Rock of Ages prospect. Part of the mineral claims covers placer lease 361733, and the two placer claims noted above, also owned by Athabasca Nuclear Corporation. Other placer claims or leases, with different ownership, may underlie parts of the Yellowjacket mineral tenures. In addition there are at least three Crown Grants, including DL 184 (Discovery MC), DL 520 (Cub Fraction) and DL 521 (Wedge Fraction) with ownership and status unknown. To the author's knowledge, none of the placer claims or leases have been surveyed.

The project received a British Columbia Ministry of Energy, Mines and Petroleum Resources Small Mines Act Permit on July 10, 2009 for the development and production of gold from the Yellowjacket Gold Zone (see EPL/PRZ news release July 13th, 2009). The Permit allows for the development and operation of an open pit gold mine and onsite concentrator processing up to 75,000 tons per year of ore. The local Taku River Tlingit First Nation ("TRTFN") was an active participant in the review and approval of the Permit.

EXPLORATION HISTORY AND PREVIOUS WORK

The discovery of gold in the Atlin area in 1897 led to the establishment of the village of Atlin. The first workings were on Pine Creek and by the end of 1898, more than 3000 people were camped in the Atlin area. Since that time, placer mining has provided economic input to the area. In addition to placer gold exploration, hard rock prospecting has also identified a number of bedrock gold targets over the last 100 years. In 1899, an auriferous vein zone (the Yellowjacket showing) was discovered along Pine Creek by placer miners (BC Ministry of Energy and Mines Minfile Number 104N043). Additional gold zones in bedrock were found during subsequent placer mining operations at the Red Jacket and Rock of Ages showings (Prior, 1903).

1980's Exploration work on the Yellowjacket area gold occurrences is summarized by Downie (2012):

In 1983, Canova Resources ("Canova") and Tri-Pacific Resources optioned the area that is now part of the Yellowjacket Property from the title holder and conducted a small diamond drill program that intersected high grade gold mineralization at depth. In 1986, Homestake Mineral Development Corp. ("Homestake") optioned the Yellowjacket Property and conducted geological, geophysical and drilling programs until 1989. From 1986 to 1988, Homestake diamond drilled 58 holes on the Yellowjacket Zone, and in 1989, carried out a reverse circulation rotary drilling program their larger Yellowjacket Property. Drilling in 1986 to 1989 identified gold mineralization within broad zones of intensely altered (carbonate, silica, mariposite) ultramafic rocks, and in adjacent silicified volcanic rocks.

2003 to present (summarized after Downie, 2012):

Renewed interest in the Yellowjacket area occurrences by Muskox Minerals (later called Prize Mining) led to drilling programs from 2003 to 2006 which included 14 NQ and 50 HQ size diamond drill holes totaling 7797.26 m on the Yellowjacket Gold Zone. In 2005 and 2006, 10 HQ size diamond drill holes totaling 1481.28 metres were drilled on the Rock of Ages Zone. The drill programs were designed to test for high grade gold mineralization within a large fault zone (the Pine Creek Fault) along the contact between ultramafics and Cache Creek Group volcanic and metasedimentary rocks. The majority of the holes drilled during on the Yellowjacket Gold Zone during these programs encountered one or more intervals of gold mineralization. The results of the drilling indicated broad zones of gold values ranging from 0.5 to 5.0 g/t relate to shallowly dipping structural

zones. These shallow structures are intersected by two steeply dipping fault zones (the Pine Creek Fault and its associated cross faults). Narrower but higher grade gold mineralization has been identified within these steeply dipping structures.

From 2006 to 2008 Prize Mining undertook an exploration bulk sampling program in the area of the Yellowjacket Gold Zone, the area of excavation is now referred to as Pine pit. In 2008, Prize processed 4200 tonnes of material in their onsite bulk sample mill. Of this material, 2880 tonnes were considered to be taken from the main mineralized zone and returned gold bars totaling 18.63 kilograms (599 ounces; Dandy and Price, 2010). During the course of the excavation of the original pit, the geology of the pit floor was mapped; this provided the first detailed look at the structure along the fault zone, and the in-situ gold relationships.

In 2009, through a deal with Prize Mining, Eagle Plains Resources applied for a Small Mines Act permit for continued excavations. Pine pit was dewatered and additional material excavated. Geological mapping of new exposures to the immediate east of the original pit was undertaken by Eagle Plains to add to the geological database (Katay, 2009).

In the fall of 2010 Eagle Plains carried out a reverse circulation drill program totalling 2181 meters in 64-holes in the area of the proposed East pit extension of the Pine Pit. The Rock of Ages pit was excavated during placer operations on the property during the 2010 season. The Pit was progressively uncovered from west to east as overburden was stripped and the pay near bedrock was mined and processed for placer gold extraction. During the 2010 excavation two shafts were uncovered in the central part of the present pit. The main, deep shaft fits historic descriptions and the approximate location of the 'Rock of Ages' shaft. Rumours indicate that another shaft was exposed to the west of the current pit during placer mining in early 2000's (Brad White, pers. comm., 2010). It is possible that this other showing may be the Red Jacket showing also described in historic reports (Prior, 1903).

As placer mining progressed in 2010, the exposed bedrock surface was mapped (Devine, 2010). Continued pit excavation to the east in 2011 was mapped in 2012 (Devine, 2013; Downie, 2013).

REGIONAL GEOLOGY

The town of Atlin and the area to the east is underlain by rocks of the northern Cache Creek terrane. It contains a fault bounded package of late Paleozoic and early Mesozoic dismembered oceanic lithosphere, intruded by post-collisional Middle Jurassic, Cretaceous and Tertiary felsic plutonic rocks. The area was originally mapped by Aiken (1959) during mapping of the Atlin 1:250,000 scale map sheet, more detailed mapping by Ash (1994) refined the geology of the area in the immediate area of Atlin.

The geology of the Atlin region is divisible into two distinct lithotectonic elements. A structurally higher, imbricated sequence of oceanic crustal and upper mantle lithologies termed the "Atlin ophiolitic assemblage", which is structurally superimposed over a lower and lithologically diverse sequence of steeply to moderately dipping, tectonically intercalated slices of pelagic metasedimentary rocks with tectonized pods and slivers of metabasalt/meta-andesite, limestone and greywacke termed the "Atlin accretionary complex" (Ash, 1994). Locally these elements are intruded by the Middle Jurassic calcalkaline Fourth of July batholith and related quartz-feldspar porphyritic and melanocratic dike rocks, and the Late Cretaceous Surprise Lake batholith, a highly differentiated peraluminous granite.

The ophiolitic assemblage contains imbricated mantle harzburgite, crustal plutonic ultramafic cumulates, gabbros and diorite, together with hypabyssal and extrusive basaltic volcanic rocks. These units comprise an imbricated sequence of relatively flat-lying, coherent thrust slices of obducted oceanic crustal and upper mantle rocks. Mantle lithologies are dominated by harzburgite tectonite containing subordinate dunite and lesser pyroxenite dikes. The unit forms an isolated klippe that underlies the town of Atlin and Monarch Mountain, but is also found in topographically low areas along Pine Creek as part of another fault bound package of ultramafic rocks.

Rocks of the accretionary complex include pelagic metasedimentary rocks dominate the unit and consist of argillites, cherty argillites, argillaceous cherts and cherts with lesser limestones and greywackes. These units are structurally interleaved within the complex, and with slices of the ophiolitic assemblage.

The structural boundaries, particularly the basal thrust faults of the ultramafic domains have been carbonated and serpentinized. These faults, as well as other, possibly younger, high angle faults have been the focus of gold exploration in the area, due to the presence of listwanite alteration mineral assemblages with elevated gold values.

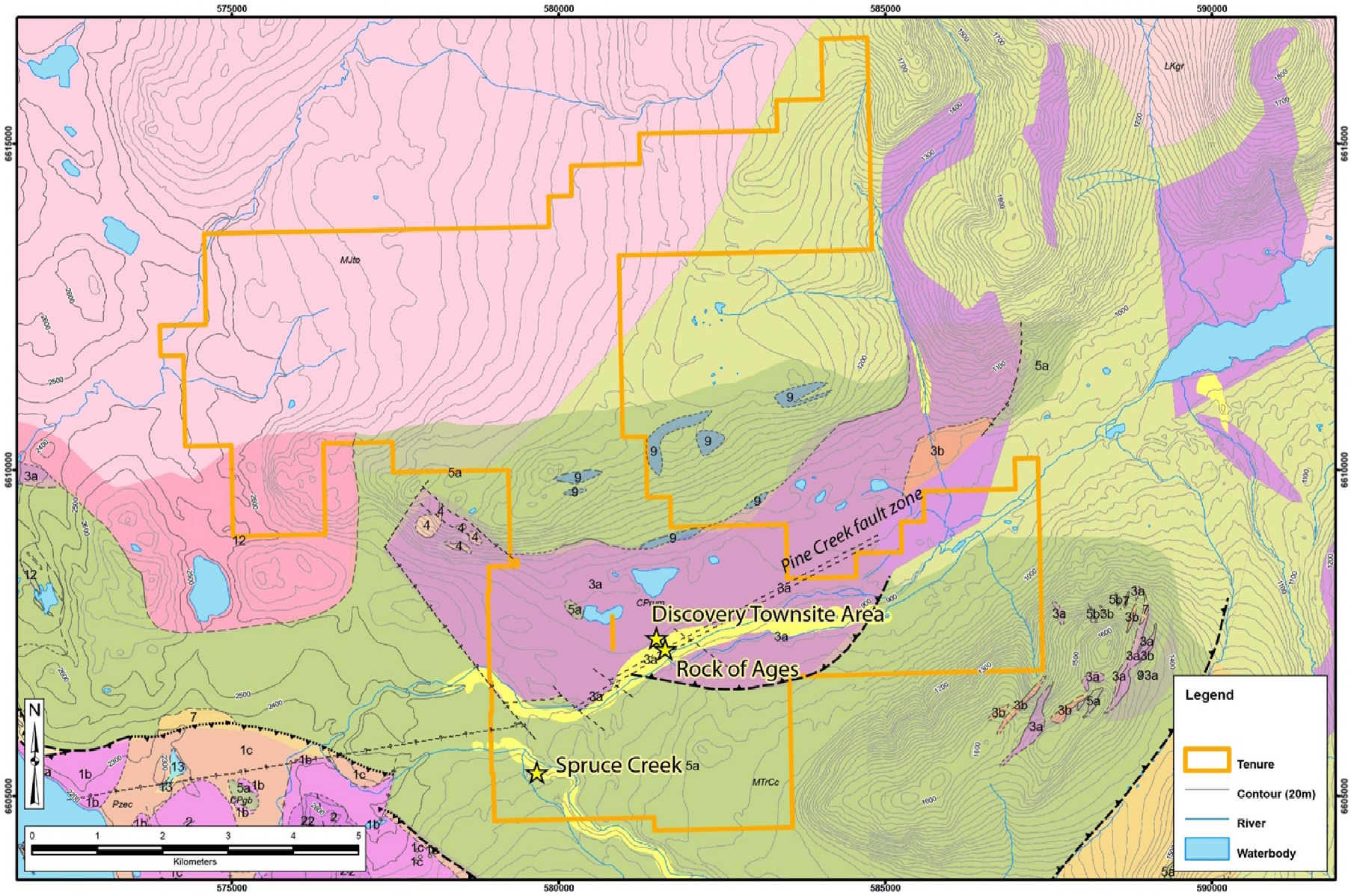


Figure 3. Bedrock geology in the Yellowjacket property area, after Ash (1994). Legend on next page.

Legend

- Pit Location
- Tenure
- Contour
- River
- Waterbody
- Geologic Cross Section

Contacts

- Defined
- Airphoto
- Approximate
- Inferred

Faults

- Thrust, Approximate
- Thrust, Inferred
- Unknown, Airphoto
- Unknown, Approximate
- Unknown, Inferred

Geology

Quaternery

- Qal — *Unconsolodated glacial till and poorly sorted alluvium*
- Placer areas
- 13 — *HYDROMAGNESITE: white, powdery with a uniform texture and composition, no bedding or structure evident, thickness ranges from 0.1 to 1.1 meters*

Middle Jurassic

- 12 — *GRANODIORITE: buff-white to dull pink, medium to coarse-grained, k-feldspar megacrysts up to 2 cm (20-40 %) in a medium-grained matrix of quartz, plagioclase, biotite, accessory magnetite and sphene*
- 12a — *FELDSPAR PORPHYRY: buff-white to dull pink fine-grained with 15 to 30 %, 4 to 9 millimeter feldspar phenocrysts.*
- 12b

Mississippian to Middle Jurassic

- 11 — *WACKE: grey, grey-green weathering, with abundant chert clasts and lesser clasts of argillite, quartz and limestone with the latter typically weathering out on surface, locally well bedded*
- 10 — *SEDIMENTARY TECTONIC BRECCIA: tan to rusty-brown, polymictic with angular to rounded fragments of variably bedded to massive limestone*
- 9 — *LIMESTONE: massive, grey to buff-white, light to dark grey weathering, typically recrystallized*
- 8 — *ARGILLITE: dark grey to black (graphitic), fine-grained, typically sheared and flaggy*
- 7 — *CHERTY ARGILLITE: dark to pale grey, silicious siltstone, impure chert, typically massive, locally bedded*
- 6 — *CHERT: varies from dark to light grey to buff white to red brown to black, massive commonly ribboned with thinner argillaceous interbeds, where containing interbeds the unit is labelled 6/7*
- 8+6

- Melange zone — *MELANGE: siliceous argillite with blocks and lenses of limestone, volcanic rock and chert (outcropping units indicated)*

Late Paleozoic

- 5a — *METABASALT: grey-green, typically massive, fine to medium-grained, locally autobrecciated to flowbanded to pillowed, variably carbonatized (5-20 %) with disseminated pyrite (trace to 10%) minor metadiabase, undivided*
- 5a,b
- 5b — *CARBONATIZED METABASALT: weathers orange-brown; generally massive to brecciated with quartz as veinlets and space filling breccia; traces to accessory amounts of mariposite*
- 4 — *METAGABBRO: dark grey to buff white, medium to coarse-grained, equigranular to locally varitextured and variably carbonate altered*
- 3a — *PERIDOTTIE (WEHRLITE?): black to grey, dull to light grey weathering, typically highly serpentinized, locally displays poikiolitic textures on well washed surfaces with oikocrysts from 1 to 3 centimeters in size*
- 3b — *LISTWANITE (carbonatized serpentinite): similar to 1c (ca.169 Ma, Ar-Ar Mariposite ages; Ash, 2001)*

Mantle Rocks

- 2 — *DUNITE: dark green, medium-grained, equigranular, weathers characteristic tan-brown; variably serpentinized (50 to100 %); occurs as podiform bodies hosted by harzburgite; trace to 4%, 1-4 mm disseminated chrome-spinel*
- 1a — *HARZBURGITE: dark green to black, medium to coarse-grained porphyroclastic; differential erosion caused by the more resistant orthopyroxene imparts a rough brown weathered surface*
- 1b — *SERPENTINITE-BASTITE: altered equivalent to 1a: light to dull weathering; locally mylonitic; minor to moderate talc; accessory magnetite and carbonate*

Alteration

- 1c — *LISTWANITE: (carbonatized serpentite): buff-white to dull grey, weathers distinctive orange-brown; fault controlled intensity of altertation; quartz stringers and episodic veins (auriferous?)*

PROPERTY GEOLOGY

The Yellowjacket Gold Zone is situated along the Pine Creek fault, a high-angle structure that cuts across the ultramafic domain along Pine Creek. Previous drilling has indicated that the ultramafic unit is structurally underlain by metavolcanic rocks across a basal thrust fault (Dandy, 2005). The Pine Creek fault zone is a younger, east-trending structure that cuts this low-angle thrust faulted contact. It is approximately 70 metres in width and includes several fault strands as part of a brittle, right lateral (most recently) structural zone. The fault is characterized by broken and fractured rocks, separated by fault gouge and rubble zones ranging from centimetres to more than 10 metres wide. The zone contains irregular blocks and lenses of all of the lithologies that are found locally in the Atlin area: metamorphosed basalt and andesite, ultramafics, diabase and gabbro, as well as chert, limestone, and metasedimentary rocks. Intrusions of lamprophyre dykes are mapped within the structural corridor, with clear late syn-deformation timing of emplacement.

The Pine Creek fault is characterized by strongly broken and fractured rocks, with gouge and rubble zones ranging from centimetres to more than 10 metres wide. The zone contains irregular blocks and lenses of all the lithologies that are typical of the Atlin ophiolitic assemblage, metamorphosed basalt and andesite, ultramafics, diabase and gabbro. Quartz-carbonate alteration (listwanite-alteration) of ultramafic rocks and some mafic volcanic rocks along the fault zone is common, but sporadic. Fault blocks are variably carbonatized, the reactions being carried forward to different limits. Hansen et al. (2004) describe several mineral reactions that form part of the listwanitzation process; these are represented along the fault zone.

The timing of gold mineralization with respect to movement along the Pine Creek fault zone is uncertain. While previous descriptions of the focused zone of listwanite alteration and gold mineralization along the basal thrust fault may suggest a pre-Pine Creek fault timing for original gold mineralization, there is clearly also younger hydrothermal alteration resulting in quartz-carbonate (listwanite) alteration along the Pine Creek fault vertical structures. Alteration and quartz veining occurred during the development of the fault zone, as quartz veins occur along fault surfaces, but are also broken and incorporated into those same faults and subsidiary structures. The timing of gold introduction into the system is debated: mid-Jurassic during emplacement of the Fourth of July batholith, or Cretaceous with the emplacement of the Surprise Lake batholith. The source of gold is also a question, with various models calling for either scavenging of gold from the ultramafic rocks during carbonate alteration, or introduction during magmatically-driven hydrothermal events.

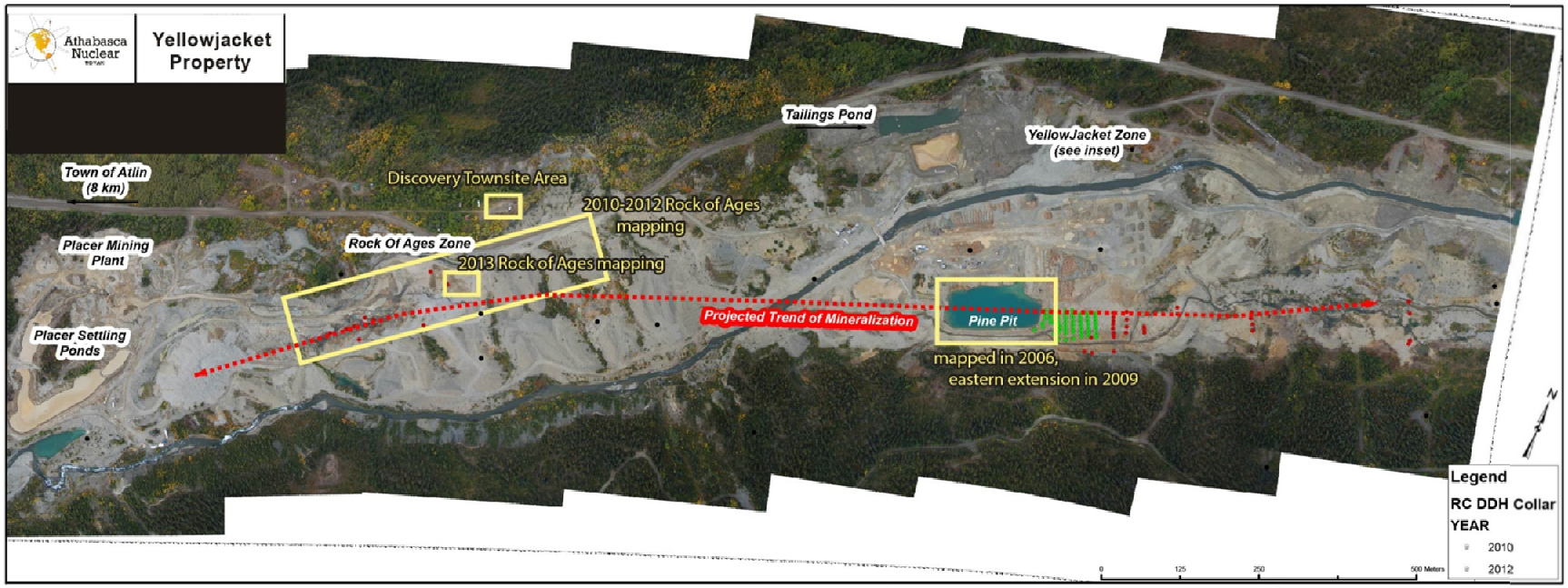


Figure 4. 2010 airphoto mosaic of the Yellowjacket Gold Trend along Pine Creek. The areas of previous geological mapping as well as those added in 2013 are highlighted in yellow.

2013 EXPLORATION PROGRAM

The exploration program in 2013 consisted of three focused mapping projects in areas of newly exposed bedrock. These areas were being worked by placer miners who had uncovered bedrock as part of their mining or placer exploration programs. The sites were visited and mapped at 1:150 scale, and integrated into the Yellowjacket digital geology map database.

Rock of Ages

The eastern part of the Rock of Ages pit has a highly irregular bedrock floor. The extension of the 2010 pit was excavated in 2011 during the second season of placer operations, using an excavator with a large bucket. The bedrock in that part of the pit was mapped in 2012. In 2013 a local miner undertook a placer mining program using a much smaller hoe to dig into the deep pockets of gravel that were passed over by the previous operation. During this program, they uncovered several exposures of bedrock that add to the detail of geological relationships in that part of the pit.

Mapping in 2013 refined the geology over an area of approximately 30 metres by 40 metres in the central part of the Rock of Ages pit (Figure 4). Geological relationships are identical to those established in other parts of the Rock of Ages area. A series of northeast trending, steep to moderately northwest dipping faults separate panels of serpentinized harzburgite and andesitic volcanic rocks. Faults show a right-lateral sense of displacement and are an extension to faults mapped in detail to the immediate west in the Rock of Ages pit. Subsidiary structures are oriented northwest and tie into the major northeast faults. In one area, a subsidiary structure is filled by a lamprophyre dyke that is sheared along one side, indicating its emplacement late but near the end of adjustments along the Pine Creek fault zone in a structurally dilatant domain.

Discovery Townsite Area

Approximately 100 metres north of the Rock of Ages pit, across the Surprise Lake road, is the original townsite named Discovery, dating back to 1898 (Figure 4). Part of the town was built on a bedrock bench, above Pine Creek where the first reported discoveries were made that led to the Atlin Gold Rush. In 2013 a placer miner worked the area immediately adjacent to the historic buildings, scraping down to the bedrock surface along the bench. The exposures were mapped during the 2013 field season.

The Discovery townsite area mapped is underlain entirely by serpentinized harzburgite. The rock is dark green to black only locally with sheared, talc-covered surfaces. There is relatively little to no listwanite-style alteration or quartz veining. However, the area is bisected by a north-east trending fault, less than 50 centimetres wide that was exposed as a 50 metre long series of white (hydromagnesite?) fault gouge occurrences along the placer excavation. This fault is parallel to the main Rock of Ages trend across the road, which is also the main Pine Creek fault zone trend.

LEGEND: Lithology Dark solids = outcrop; hatched solids = subcrop; background colour = geology

Quaternary

Cover gravels

Emplaced or created during fault development along the Pine Creek fault zone

Lamprophyre: Black, medium- to coarse-grained biotite rock with disseminated pyrite. Emplacement of lamprophyre dykes was controlled by right-lateral fault adjustments.

Fault breccia: Locally-derived angular clasts in fault gouge matrix

Fault gouge: White, sticky clay fault gouge

Pre-date faulting along the Pine Creek zone

Diabase: Fine-grained, equigranular dykes, commonly with hematite-lined fracture surfaces

Uncertain protolith: likely andesite, locally has ghosts of lath-shaped crystals visible through pervasive silicification

Andesite (undivided): Grey to grey-green fresh color, medium grained equigranular texture. Local 'net-texture' groundmass with plagioclase +/- hornblende and rare quartz phenocrysts.

'hornblende andesite': up to 5% vol. 1-2 mm acicular hornblende, locally rimmed by plagioclase, within a fine grained, dark green-grey groundmass

'quartz-phyric volcaniclastic': up to <1% vol. 1-2 mm round smoky grey quartz phenocrysts in fine grained andesitic groundmass.

Gabbro: Dark olive-green and has consistent medium grained texture with up to 80% pyroxene grains with interstitial plagioclase

Chert / argillite: Black to dark grey unit. Chert-rich zones locally display dismembered chert beds to 5 cm wide. Argillite-dominated domains are locally graphitic.

Ultramafic rocks (no pyroxene phenocrysts): Dark green rock with consistent fine grained texture (ie. no relict pyroxene textures). Although locally listwanite-altered, it is generally more coherent and commonly has only Fe-carbonate veinlets throughout, with more intense listwanite alteration on the fault-bound margins of individual blocks.

Ultramafic rocks (harzburgite protolith?): Variably listwanite-altered rock. Commonly displays corase grained, irregular texture and relict pyroxene crystals (bastite, variably serpentinzed).

Symbols

Faults *Faults are broken out into several different phases to highlight the most recent right-lateral brittle displacement along the zone. With further mapping along the trend, it may be possible to associated gold-quartz veins with a particular phase of faulting.*

Youngest cross structures. Cut the main right-lateral fault zones.
defined, approximate, inferred

Right-lateral brittle faults with most recent displacement. This phase of opening occured post-lamprophyre emplacement and are commonly marked by a white clay gouge.
defined, approximate, inferred

Older faults associated with right-lateral displacement. Included here are faults that juxtapose andesite and ultramafic rocks which may be some of the oldest structures along the fault zone.
defined, approximate, inferred

Contacts

defined, approximate, inferred

Athabasca Nuclear

Figure 5

Rock of Ages pit

Lithology

0 5 10 15 20 25 m

Map view rotated to accomodate formatting

UTM NAD83, Zone 8 | 1:500 | January, 2014

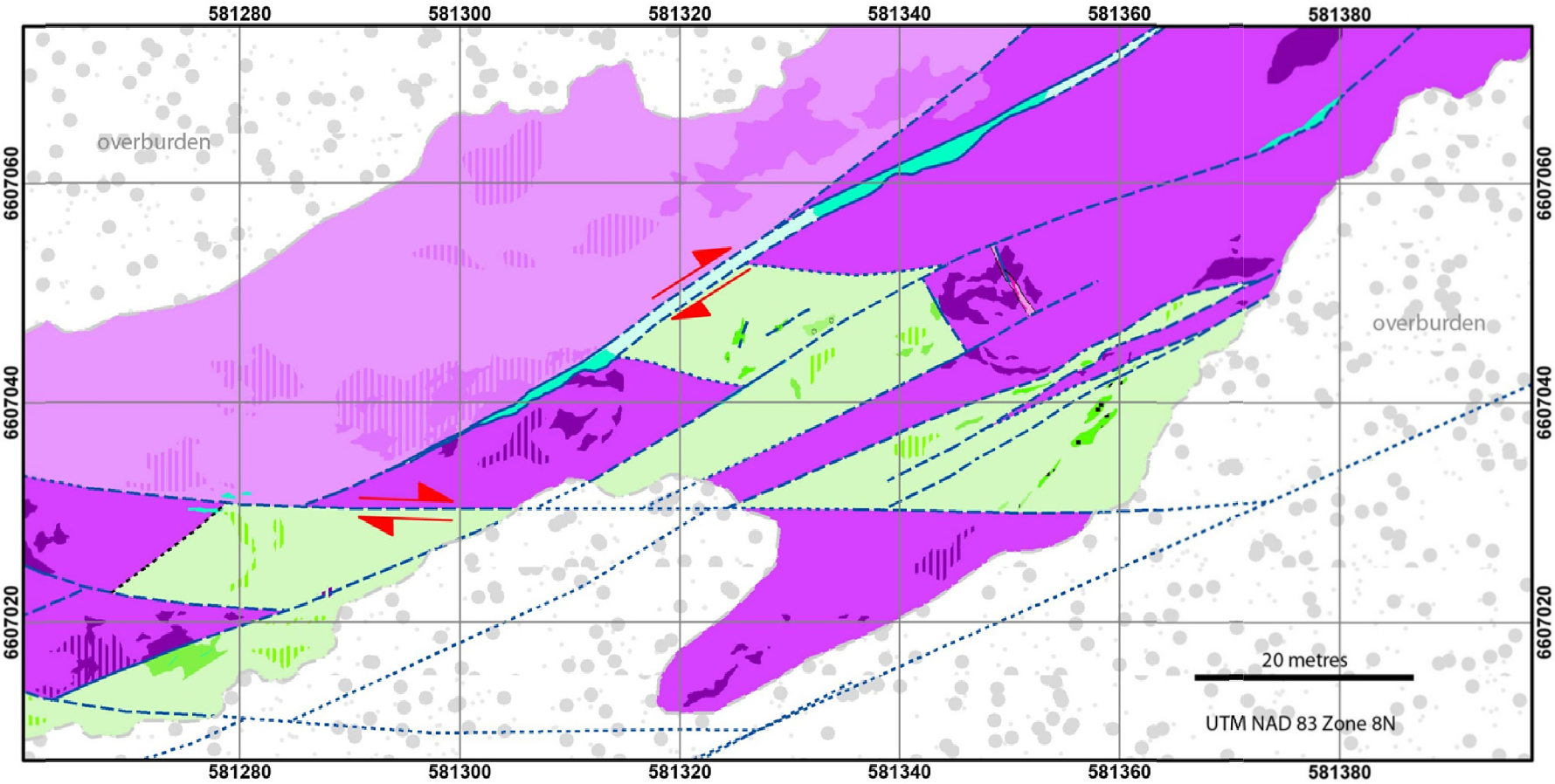
Yellowjacket Property, January 2014

Spruce Creek

Both newly exposed and older outcrops were mapped in the lower Spruce Creek area, on both sides of the Creek along the placer workings. A west-northwest trending fault and shear zone system is mapped as separating outcrops of argillaceous chert to the north, from andesitic volcanic rocks to the south. The fault is approximately mapped as a discrete brittle structure in the western part of the map, where it is marked by a 5 metre wide corridor of listwanite alteration and rusty quartz-carbonate veining. The veins are 1mm to 2 cm wide, with the larger veins having open centres and drusy quartz linings. Four grab samples were taken from the fault zone area and quartz veins for geochemical analysis. No samples returned elevated gold values.

In the central and eastern part of the mapped area, a 20 metre wide zone of 1-5 centimetres spaced brittle cleavage in andesite is mapped as being a brittle shear zone with similar orientation to the western fault.

Along the structure mapped, lamprophyre dykes intrude along the fault or parallel to the brittle cleavage in the shear zone.



LEGEND: Lithology Dark solids = outcrop; hatched solids = subcrop; background colour = geology

Emplaced or created during fault development along the Pine Creek fault zone

Lamprophyre: Black, medium- to coarse-grained biotite rock with disseminated pyrite. Emplacement of lamprophyre dykes was controlled by right-lateral fault adjustments.

Fault gouge: White, sticky clay fault gouge

Pre-date faulting along the Pine Creek zone

Andesite (undivided): Grey to grey-green fresh color, medium grained equigranular texture. Local 'net-texture' groundmass with plagioclase +/- hornblende and rare quartz phenocrysts.

'hornblende andesite': up to 5% vol. 1-2 mm acicular hornblende, locally rimmed by plagioclase, within a fine grained, dark green-grey groundmass

'quartz-phyric volcaniclastic': up to <1% vol. 1-2 mm round smoky grey quartz phenocrysts in fine grained andesitic groundmass.

Faults

Right-lateral brittle faults with most recent displacement. This phase of opening occured post-lamprophyre emplacement and are commonly marked by a white clay gouge.

defined, approximate, inferred

Contacts

defined, approximate, inferred

Chert / argillite: Black to dark grey unit. Chert-rich zones locally display dismembered chert beds to 5 cm wide. Argillite-dominated domains are locally graphitic.

Ultramafic rocks (no pyroxene phenocrysts): Dark green rock with consistent fine grained texture (ie. no relict pyroxene textures). Although locally listwanite-altered, it is generally more coherent and commonly has only Fe-carbonate veinlets throughout, with more intense listwanite alteration on the fault-bound margins of individual blocks.

Ultramafic rocks (harzburgite protolith?): Variably listwanite-altered rock. Commonly displays corase grained, irregular texture and relict pyroxene crystals (bastite, variably serpentinized).

Figure 6. New geological mapping (lithology) in the Rock of Ages pit.

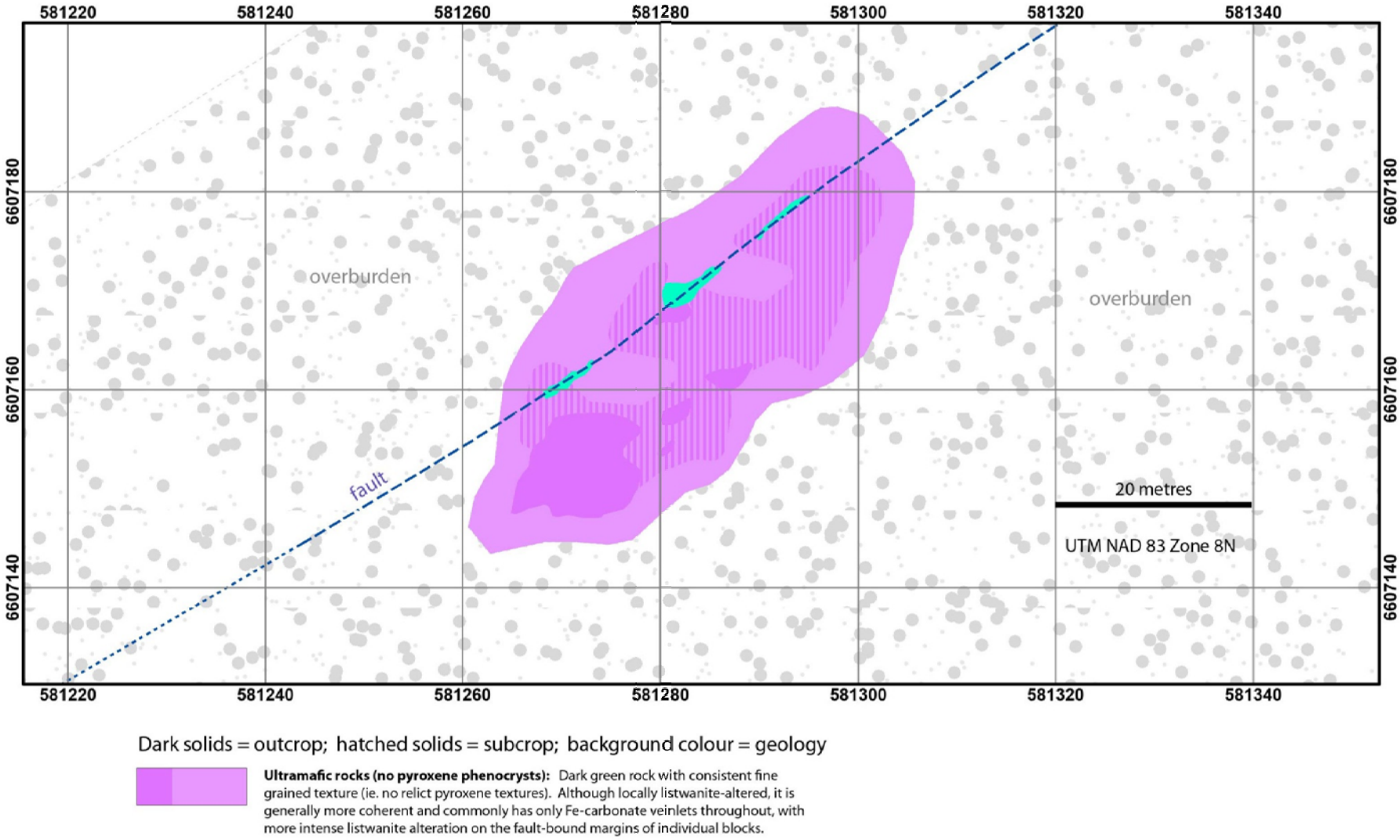


Figure 7. New geological mapping (lithology) in the Discovery townsite area.

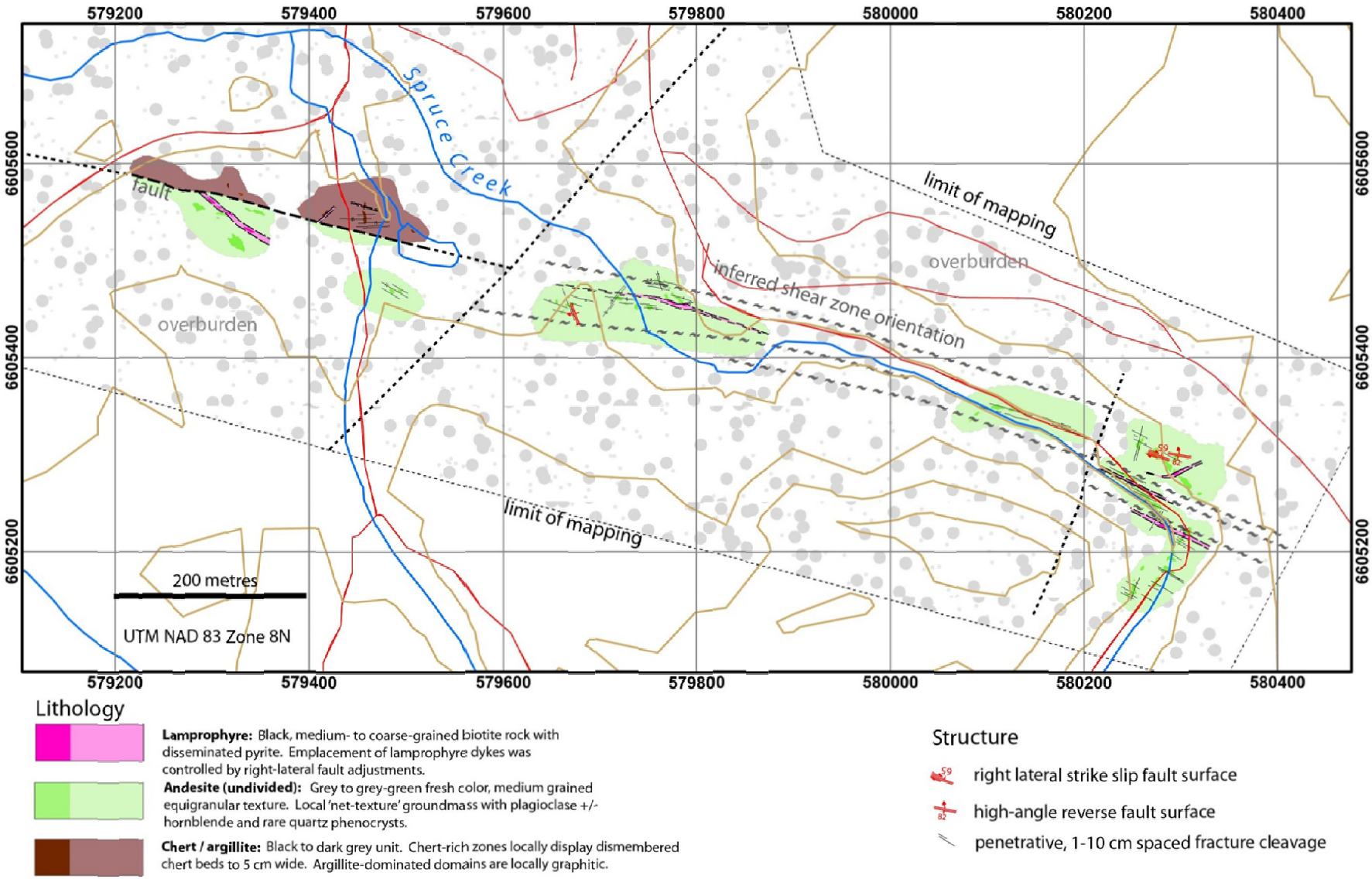


Figure 8. New geological mapping (lithology) in the southwestern part of the Property, at the bottom of Spruce Creek

CONCLUSIONS

Due to the high degree of cover on the Yellowjacket property, mapping bedrock when it is exposed through other operations is a cost-effective and efficient way of gaining high-value information about the geology. By adding these areas to the property-scale geology map when they become available, a more detailed property-scale map is emerging. The Pine Creek fault zone and subsidiary structure host gold mineralization along the Yellowjacket trend. This fault, and possible subsidiary faults may also host gold mineralization of the same age. The Pine Creek fault is a strong magnetic feature, but other prospective subsidiary structures may be uncovered through bedrock mapping.

REFERENCES

Aitken, J.D. (1959): Atlin map-area, British Columbia; *Geological Survey of Canada*, Memoir 307, 89 pages.

Ash, C.H. (2001): Relationship between ophiolites and gold-quartz veins in the North American Cordillera; *BC Ministry of Energy and Mines*, Bulletin 108, 140 pages.

Ash, C.H. (2004): Geology of the Atlin Map Area, Northwestern British Columbia: *BC Ministry of Energy and Mines*, Geoscience Map 2004-4.

Black, J.M. (1953): Report on the Atlin Placer Camp. BC Ministry of Energy and Mines, Report 1953-1, 86 pages.

Dandy, L. and B.J. Price (2010): Technical Report (43-101 Compliant) Yellowjacket Gold Project. Prepared for Eagle Plains Resources and Prize Mining Corporation (Yellowjacket Joint Venture), January, 2010.

Dandy, L. (2005): Technical Report on the Atlin Gold Property, Prepared for Muskox Mineral Corp., February, 2005.

Devine, F. (2013): Update on 2012 Bedrock Mapping at the Rock of Ages Pit, Yellowjacket Property, Atlin Area, B.C.; Internal Report for Eagle Plains Resources Ltd prepared by Merlin Geosciences Inc.

Devine, F. (2010): Report on Bedrock Geological Mappingat the Rock of Ages Pit, Yellowjacket Property, Atlin Area, B.C.; Internal report for Eagle Plains Resources Ltd prepared by Merlin Geosciences Inc.

Downie, C.C. (2013): 2012 Report on the Yellowjacket Gold Property, Atlin Area. British Columbia Ministry of Energy and Mines, Assessment Report 34034, 284 pages.

Hansen, L.D., R.G. Anderson, G.M. Dipple, and K. Nakano (2004): Geological setting of listwanite (carbonated serpentinite) at Atlin, British Columbia: implications for CO2 sequestration and lode-gold mineralization. Geological Survey of Canada, Current Research 2004-A5, 12 pages.

Katay, F. (2009): Field Report on 2009 Grade Control, Pine Pit, Yellowjacket Property; Eagle Plains Resources Ltd. Internal Report.

Prior, E.G. (1903): Report of the Minister of Mines, 1902. BC Minister of Mines Office, 320 pages.

APPENDIX I

STATEMENT OF QUALIFICATIONS

I, Fionnuala Devine, hereby certify that:

I am a consulting geologist, and principal of Merlin Geosciences Inc., with an office at 178th Street, Atlin, BC, V0W 1A0

I am a graduate of the University of British Columbia (B.Sc. Geology 2002) and Carleton University (M.Sc. Geology 2005).

I have practiced my profession in since completing graduate degree studies in 2005, continuously employed since that time.

I carried out geological mapping and site visits on the Yellowjacket property in 2010, 2012 and 2013. The work in 2013 comprises the content of this report. It is based on personal observations and new work generated during 2013.

In the disclosure of information relating to title of the claims I have relied on the information provided by Athabasca Nuclear Corporation. I have also relied on their previous summaries of drilling programs and exploration history on the Yellowjacket property.

At the effective date of this report, to the best of my knowledge, information, and belief this report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated at Enderby, British Columbia this 11th day of January, 2014 (signature and effective date),

"Signed and Sealed"

Fionnuala Devine, M.Sc.

APPENDIX II

STATEMENT OF EXPENDITURES

2013 Yellowjacket Expenditures – Mapping Program

work dates: August 10 - September 15, 2013

Infill mapping program

Consultants / Contractors		Days	Rate	Subtotal
Merlin Geoscience Inc.				
	Mapping and field site visits	5	$735.00	$3,675.00
	Basemap preparation, GIS compilation of new data, integration with Yellowjacket GIS project and 2011-2012 files. Map production. Geochemical sample preparation and shipping	3.5	$735.00	$2,572.50
	Report preparation	3.5	$735.00	$2,572.50
Terralogic Exploration Inc.				
	Analytical Costs			$423.03
			TOTAL:	**$9,243.03**

APPENDIX III

ANALYTICAL RESULTS

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: TERRALOGIC EXPLORATION SERVICES INC.
44 - 12TH AVENUE SOUTH
SUITE 200
CRANBROOK BC V1C 2R7

Finalized Date: 5- DEC- 2013
Account: TELOEX

CERTIFICATE WH13214280

Project: YellowJacket

P.O. No.: YJ13- 001

This report is for 5 Rock samples submitted to our lab in Whitehorse, YT, Canada on 27- NOV- 2013.

The following have access to data associated with this certificate:

CHRIS GALLAGHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
SCR- 21	Screen to - 100 to 106 um
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% <2mm
CRU- QC	Crushing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 32	Pulverize 1000g to 85% < 75 um
BAG- 01	Bulk Master for Storage

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA25D	Ore Grade Au 30g FA AA Dup	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES
Au- SCR21	Au Screen Fire Assay - 100 to 106 um	WST- SIM
Au- AA25	Ore Grade Au 30g FA AA finish	AAS

To: TERRALOGIC EXPLORATION SERVICES INC.
ATTN: CHRIS GALLAGHER
44 - 12TH AVENUE SOUTH
SUITE 200
CRANBROOK BC V1C 2R7

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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CERTIFICATE OF ANALYSIS WH13214280

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- SCR21 Au Total ppm 0.05	Au- SCR21 Au (+) F ppm 0.05	Au- SCR21 Au (-) F ppm 0.05	Au- SCR21 Au (+) m mg 0.001	Au- SCR21 WT. + Fr g 0.01	Au- SCR21 WT. - Fr g 0.1	Au- AA25 Au ppm 0.01	Au- AA25D Au ppm 0.01	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5
I3001		1.61	<0.05	0.05	<0.05	0.002	38.89	920.1	0.01	0.01	<0.2	0.43	25	<10	60	<0.5
I3002		2.09	<0.05	<0.05	<0.05	<0.001	39.12	848.7	0.01	0.01	<0.2	0.46	10	<10	50	0.5
I3003		2.08	<0.05	<0.05	<0.05	0.001	46.37	933.1	<0.01	<0.01	<0.2	<0.01	<2	<10	30	<0.5
I3004		1.53	0.06	0.07	0.06	0.002	27.88	874.7	0.06	0.06	<0.2	0.21	30	<10	60	<0.5
I3005		1.26	<0.05	<0.05	<0.05	<0.001	43.22	895.7	0.01	0.01	<0.2	0.52	20	<10	70	0.5

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

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Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na
	Units	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm	%
	LOR	2	0.01	0.5	1	1	1	0.01	10	1	0.01	10	0.01	5	1	0.01
I3001		<2	10.6	<0.5	29	20	19	6.48	<10	<1	0.26	<10	3.87	1255	1	0.02
I3002		<2	11.1	<0.5	26	24	13	5.67	<10	<1	0.30	<10	4.29	1160	1	0.01
I3003		<2	>25.0	0.8	<1	1	2	0.02	<10	<1	<0.01	<10	0.25	65	<1	<0.01
I3004		<2	10.4	<0.5	8	12	10	3.48	<10	<1	0.11	<10	4.53	898	1	0.01
I3005		3	15.0	<0.5	26	60	11	5.58	<10	<1	0.24	10	5.89	1160	<1	0.01

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Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Ni	P	Pb	S	Sb	Sc	Sr	Th	Ti	Tl	U	V	W	Zn
	Units	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
	LOR	1	10	2	0.01	2	1	1	20	0.01	10	10	1	10	2
I3001		42	440	2	0.27	<2	30	321	<20	<0.01	<10	<10	75	<10	88
I3002		54	540	<2	0.43	<2	24	309	<20	<0.01	<10	<10	53	<10	57
I3003		<1	90	<2	<0.01	<2	<1	145	<20	<0.01	<10	<10	1	<10	8
I3004		31	160	<2	0.13	<2	5	367	<20	<0.01	<10	<10	29	<10	32
I3005		61	3360	6	0.24	2	18	598	<20	<0.01	<10	<10	65	<10	62

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

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CERTIFICATE OF ANALYSIS WH13214280

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Applies to Method: Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada.

BAG- 01	CRU- 31	CRU- QC	LOG- 22
SPL- 21	WEI- 21		

Applies to Method: Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Au- AA25	Au- AA25D	Au- SCR21	ME- ICP41
PUL- 32	SCR- 21		