BRITISH	BC Geological Survey
COLUMBIA	Assessment Report
	38563
Ministry of Energy, Mines & Petroleum Resources Mining & Minerals Division BC Geological Survey	Assessment Report Title Page and Summary
Placer Claim Assessment # EVENT S	5758411 \$7,450.00
AUTHOR(S): Nicholas Clive Aspinall	SIGNATURE(S): hie Aspirall
NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):	YEAR OF WORK: 2019
STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S):	20
PROPERTY NAME: BUNDLATE Creek	
CLAIM NAME(S) (on which the work was done):	
COMMODITIES SOUGHT: REQUINES SOUGHT:	
MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:	
MINING DIVISION: ATLICA NTS/	BCGS NICION
LATITUDE: 59 ° 19.796' LONGITUDE: 133 ° 20	8. ' <u>755</u> '" (at centre of work)
OWNER(S): 1) <u>Micholas Clive</u> <u>Aspinall</u> 2)	
MAILING ADDRESS: P.O. BOX22 SE2 Pillman Hill ATLIN, B.C. VOW IFIN	
OPERATOR(S) [who paid for the work]: 1)As above2)	
MAILING ADDRESS:	
PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, ATIM AREVENDENCY ~ MAILX - K	mineralization, size and attitude):
Argillite cherts, limestones, An oceanie mantle Serpentivitus,	in ophiolitic assemblage - Listwanites'
	Δ
REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUL	MBERS: 45/10/2017, 2018
EVENIS: 362215 3661824)	JT II 193
	NOACT AGE

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic		-	
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for)			
Soil		-	
Silt		-	
Rock		-	
Other		_	
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area) Han	d Plaeer	1041164	# -5 350.00
PREPARATORY / PHYSICAL	in q		1
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/tr	ail		
Trench (metres)			
Underground dev. (metres)			
Other 🦉	hort		\$0.00 K
		TOTAL COST:	\$ 7450.00

Event 5758411 2019 Atlin Gold Fields Geotours Inc. Taking Venture Tourism Groups Placer Mining on Tenure 1041164, Burdette creek, Atlin MD, Centered at

59 deg 19.796' N and 133 deg 28.753' W, NTS 104 N.



Photo Credit: Quinn Hayden, August 2019

By Nicholas Clive Aspinall, P.Eng Aspinall Geological Consultants 952 Pillman Hill Road P.O Box 22, Atlin, BC. VOW 1A0 Tel: 250-651-0001 E-mail: ncaspinall@gmail.com

Work Period: Irregular days, 10th May to 14th September 2019 Report: 4th November 2019.

<u>Summary</u>

During 2019 Clive Aspinall, (the Author) spent 48 man-hours on site surveying, testing, placer mining, sluicing and panning an estimated total of 1 cubic yard on placer claim tenure 1041164 to recover and estimated 3 grams of placer gold.

The bottom line was to provide 4 groups venture tourists the experience of manual placer mining as was carried out during historical times within the Atlin Gold Fields, during the 1898-1902 Atlin gold rush.

The venue for this tourism adventure is Atlin Gold Fields Geotours Inc, owned and operated by the Author. https://www.atlingoldfieldsgeotoursinc.com

During the 48 hours on site, the Author spent time studying the gold and local geology. The placer gold recovered in 2019 on placer claim tenure 1041164 is situated in a pay zone on bedrock. This pay zone extends above bedrock for approximately 40 centimeters. The pay zone is associated with "high energy gravels" consisting of boulders up to 40 centimeters in diameter in sandy gravels, indicating gold was deposited in high energy stream flash flooding during pre-Wisconsin glacial times, some 80,000-100,000 years before present.

The general size of gold "nuggets" is half-size of a rice kernel, flattened and very thin, indicating the gold was pounded flat on its 5 km journey from potentially a listwanite or orogenic source.

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Introduction and Terms of Reference

This report summarizes the fourth season by the Author on Burdette creek. Accessing, testing, site surveys and manual placer mining was done on placer claim tenure # 1041164 for a total of 48 hours during 2019, Figures 1, 2, 3.

The purpose of the manual operations was to give 4 groups of venture tourists the experience of manual placer mining as was carried out during historical times within the Atlin gold fields, during the 1898-1902 Atlin gold rush.

The venue for this tourism adventure is Atlin Gold Fields Geotours Inc, owned and operated by the Author. https://www.atlingoldfieldsgeotoursinc.com

Reliance on other Experts, and Assessment Work Applied.

No reliance by other experts was applied.

Work Area Description and Location

The Atlin area is traditionally territory of the Taku River Tlingit First Nations, Figures 3, 4, 5, 6. The test area is centered at 59 deg 19.796' N and 133 deg 28.753' W, in Northwest British Columbia, Atlin Mining Division.

Between 16th October 2016 to 2nd January 2018, the Author accumulated title to 214.3371 hectares of placer claims on Burdette creek, Table 1, Figures 4, 5,6.

Та	bl	е	1
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Status	Burdette cree	k Placer	claims titled to	N.C. Aspina	all, 30	October 2	2019
Title	Claim Name	Owner	Issue Date	Good To Date	Statu	Area (ha)	
Number					S		
1041164	BURDETTE #1	101024	2016/JAN/10	2029/JAN/10	GOO D	32.991 6	32.992
1047237	BURDETTE #2	101024	2016/OCT/14	2024/JAN/10	GOO	32.981 7	32.982
1047239	BURDETTE#3	101024	2016/OCT/14	2024/JAN/10	GOO	49.457	49.457
1047273	BURDETTE	(100%)	2016/OCT/15	2024/JAN/10	GOO	16.493	16.494
1055624	BURDETTE	(100%)	2017/OCT/18	2024/OCT/18	GOO	0 16.491 8	16.492



Status subject conditionally until 2019 assessment work approved by MTO

Accessibility to Atlin, Climate, Local Resources, Infrastructure, Physiography Wildlife.

Atlin is the most northerly community in British Columbia, Figure 3. This community is accessible from Whitehorse, via the Alaska Highway and the newly completed chip seal road Atlin road. Total road distance from Whitehorse to Atlin is 180 km, a two-hour journey during summer months. Atlin also lies east of the Coast Range Mountains and 140 air kilometers east of Juneau, Alaska.

Access from Atlin to Burdette creek is by way of the Warm Bay road approximately 30 km south along the east shore of Atlin Lake. This road journey takes between 40 to 60 minutes, Figure 4.

Whitehorse is modern Canadian northern city with daily jet flights to Vancouver and other Canadian cities, and has a wide range of modern hotels, supermarkets and shopping malls, mineral exploration expediting services, fixed wing and helicopter charters.

Atlin has a fixed wing base; two helicopter bases, two hotels, RV parks, several camp grounds, stores, several bed and breakfast facilities, as well as an exploration and a placer mining workforce.

The region's climate is typical of northern British Columbia with winters averaging -23 ° C in January with moderate snowfall. Winter conditions arrive with a vengeance around the 15th October and last until the middle of April, when longer spring days and spring thaw occur just as suddenly. Summers are pleasant with average temperatures up to 17° C with variable precipitation. Total annual precipitation averages 279.4 millimeters of moisture.

Relief of the area ranges from 600 meters ASL at Atlin Lake to mountainous areas peaking at 2000 meters ASL, at the headwaters of Burdette creek

Moose, caribou, black bear, grizzly, beaver, marten, otter, foxes and wolves are indigenous to the region.

Atlin Placer Mining History.

Creek Name	Ounces of Gold Produced 1898-1946
Spruce Creek	262,603
Pine Creek	138,144
Boulder Creek	67,811
Ruby Creek	55,272
McKee Creek	46,953
Otter Creek	20,113
Wright Creek	14,729
Birch Creek	12,898
All others, (21 Creeks)	15,624
Total	634,147

Table 2. Gold Production from Atlin Creeks. 1898-1946

After Holland, 1950. (An historical estimate from a historical document, and data not validated by the Author).

Atlin became known as a productive Canadian placer gold camp in 1898, after the discovery by two prospectors, Miller and McLaren (who were probably informed where to find placer gold by a source in Juneau, Alaska). They confirmed paying gold on Pine Creek in January 1898. As news spread, other gold seekers found impressive amounts of gold on Spruce, McKee, Otter, Ruby, Boulder, Birch, Otter and Wright Creeks.

Atlin Creek placer gold production, as determined by Holland (1950) from 1898 to 1946 was 634,147 ounces. Today, Atlin has more than 163 km of accumulated known placer creeks, including O'Donnel River, (Author 2019). Atlin placer creeks generally are in broad valleys originally cut deep into bedrock during pre-Wisconsin glacial times, are now fluvially modified and filled by glacial and glaciofluvial deposits. Some of the placer deposits may be interglacial in age but most are probably pre-glacial (Levson, 1992). Post-glacial placers are reworked, mostly deeply buried, and glacial fluvial placers and are usually less productive. The original pre-Wisconsin gravels rich in gold are characteristically oxidized and red in colour, deposited locally on altered bedrock (Levson, 1992) or on a boulder till and paleo-stream bedrock, indicating high energy stream flow including flash flooding (Levison, 1992., Sack and Mihalynuk., 2004, Hora, 2012, and modified by the Author, 2019).

With the exception of a few scattered mining operations since the 1960's Burdette creek has been passed over by serious placer miner operators as "pay" gravels determined by the Author appear less than 0.5 metres think above bedrock, prohibiting bulk mining. However, there may be other "pay" horizons at higher levels that have not yet discovered.

Regional Geological Setting

The geology of the Atlin area is divisible into two distinct geology lithotectonic elements. A structurally higher, imbricated sequence of oceanic crustal and upper mantle lithologies termed *the 'Atlin Ophiolitic Assemblage'*, (which was an oceanic mantle of serpentinite rocks) tectonically superimposed over a lower and lithologically diverse sequence of steeply dipping to moderately dipping, tectonically intercalated slices of pelagic meta-sedimentary rocks with tectonized pods and slivers of meta-basalt, limestone, and greywacke termed the '*Atlin accretionary complex*', (making up the Cache Creek Group of rocks otherwise known as the Kedahda Formation). Locally these rocks are intruded by the Middle Jurassic of calc-alkaline Fourth of July batholith and related quartz-feldspar porphyritic and melanocratic dike rocks, (Mihalynuk, and others 2016, modified by the Author).The following figure is from Mihalynuk and others 2016, modified by the Author 2019) Ref: Figure 1.



Fig. 1. Distribution of placer claims (yellow and red blocks) around the Suprise Lake batholith. Location of Otter Creek Slowski operation within the Atlin camp (red claim blocks). Geology base modified from Cui et al. (2015), Inset shows location of the study area with respect to prime the Rel Calmble Calmble Calmble Columbia.

Figure 1.

Primary exploration targets for lode gold near Atlin have historically been quartz-carbonate-mariposite altered ('listwanite') ultramafic and mafic bedrocks, and the upper unit of Cache Creek terrane. These have long been considered the source of nearby placer deposits, and locally do contain fine visible gold. However, despite more than a century of searching, coarse gold such as that found in the placer gravels has never been discovered (Mihalynuk, 2016). This has prompted the belief that the 'listwanites' are mere erosional remnants of bedrock sources of the coarse placer gold, and that these sources have been almost entirely lost to erosion. Roof pendants of ultramafic and mafic bedrocks, and upper unit of Cache Creek terrane, where they come into contact with the lower Cache Creek accretionary unit is a target for gold associated with listwanite alteration.

Orogenic gold deposits are a new term to describe epithermal vein gold deposits, (formed near earth's surface) but in the Atlin camp needs to be extended to include mesothermal gold vein type deposits (formed deeper in the earth's surface). Quartz veins found in the Atlin camp do not have the physical attributes of epithermal veins, but do have mesothermal characteristics.

The underling factor is the host rock has undergone a metamorphism due to subducted, accretion and collision under the continental margin. In simple terms, it can be argued that prior to this collision, trace gold (i.e., about 100 ppb Au) and other elements may have originated on the surface of the ancient ocean floor via thermal volcanic flumes, vented out to combine with other vented elements including iron sulphides that eventually crystalize into pyrite. This auriferous pyrite, with other combined elements are then absorbed into surrounding volcanic and sedimentary rock formations on the ancient sea floor. These rock formations, due to tectonic plate action eventually collided with continental margins, were accreted. metamorphosed and heated-up as subduction processes occurred under the continental margin. The heat generated by this process caused trace gold and the other elements be separated, mobilized, and in Atlin camp case, were transported in mesothermal fluids. After multiples cycles over millions of years, the gold (and other elements) accumulated as orogenic gold in mesothermal guartz veins.

Within the Atlin camp, the Author believes, besides the above orogenic process's, other forces also came into play. Links of Atlin placer gold to the Cretaceous Surprise Lake batholith, and adjacent Jurassic Fourth of July batholith can also made (Mihalynuk and Sack 2004, Mihalynuk and others, 2016. Ref Fig. 1). In the case of the Surprise Lake batholith, which intruded the Cache Creek accretionary rocks during Cretaceous times, is also believed by the Author and others to have created a metamorphosed halo, creating further heat and a final

remobilization of gold, initially within a carapace over the present exposed batholith, but also at depth.

Local Geology

At the headwaters of Burdette creek "Atlin Ophiolitic assemblage, (oceanic mantle) rocks are present, (unit 9a) but to date the Author has not seen any indications listwanite alteration to be present. In the Atlin gold camp, listwanite alteration is sometimes an indication gold is present, but not always. These oceanic mantle rocks also include relatively high content of magnetite.



Geology of Burdette Creek, After J.D. Aitkin, 1959

Figure 2

These rocks are surrounded by Atlin Accretional complex, (Kedahda Formation/Cache Creek Group) rocks within in Burdette creek area. These rocks include argillite (unit 6), basalt-andsite volcanic rocks, (unit 7), and limestone, (unit 8).

The upper section of Burdette creek has several easterly-westerly trending faults cutting across the creek valley, (Aitken, 1959).

Placer gold found in Burdette creek could be sourced to:

- A potential listwanite alteration zone associated with Atlin Ophiolite complex and Atlin Accretionary assemblage rocks within upper Burdette creek.
- Burdette creek channel potentially reflects a north-south fault system, which could host orogenic gold bearing quartz systems within metamorphosed Atlin Accretionary assemblage rocks.

An Interpretation. Formation of Burdette Placer Gold Gravels.

During the Tertiary Period, the Atlin area was part of the Taku Plateau, a gentle rolling surface with a mature drainage¹.

Towards the end of the Tertiary Period, up lifting of several hundred feet, resulting in peneplanation of some mountaintops, similar to other areas of North Western America, likely elevated the Atlin region². In the Atlin region, this would have caused down cutting of existing creeks, and erosion of exhumed gold deposits.

During the late Pleistocene Epoch, in North America the Wisconsin glaciation began 80,000 to 100,000 years before present, and is recognized as last major glacial event in North America.

Previous glaciations during the Pleistocene in North America are known as Illinoian, Kansan and Nebraskan, and Pre-Nebraskan (?).

Each of these Pleistocene glaciations are believed to have experienced interglacial warming periods.

Glacial tills and fluvial gravels observations by the Author within Burdette creek and other Atlin creeks suggest the following:

• A potential sudden period of warming, resulting in fast melting of Pleistocene glacial ice before or at the onset of the Wisconsin

¹ Trans. Roy. Sot. Of Canada Vo. 8, Sec. 4, 1890, pp. 16-17.

U.S.G.S. Prof. Paper No. 45, 1906, p. 294.

² ibid

glaciation created a period of flash flooding.

- These high energy water flows created rapid channel and valley slope erosion resulted in deposition of large boulders in sanding gravels directly on creek bedrock.
- These basal boulder gravels were sometimes, but not always, deposited with placer gold, magnetite, tin and rare macro platinum group minerals.

Within the Atlin camp, basal "pay zone" fluvial gravels can range up to 5 metres above bedrock in creeks. In general, these "pay zone" gravels can host significant large boulder which would have repeatedly pulverized gold nuggets in their journey downstream.

In many cases these basal "pay zone" fluvial gravels have been covered up wards to 30 metres of Wisconsin glacial fluvial gravels, glacial lake sediments, and glacial tills.

In lower Burdette creek channel, within placer claim tenure # 1041164 observations made by the Author in 2019, 2018, and 2017, the Wisconsin gravels and tills which cover the 0.4 meter "pay zone", are up to 1.5 metres thick, with only a 5 meter over lying remaining glacial till away from the actual Burdette creek channel.

Consequently, within tenure#1041164, mechanized placer mining has unlikely proved profitable in the past. From a point of view for hand mining and venture tourism, Burdette creek is ideal.



Photo #1. Venture tourist mother and son sit on spoil gravels above bedrock, with pay zone approximating 0.40 meters thick behind them. Location UTM Sector 8v, 587831E/6582296N adjacent to Burdette creeks east bank. Photo Credit: Author July 2019.

2019 Venture Tourism Operations on Burdette creek.

During 2019, the Author supervised 4 venture tourism groups on Burdette creek between 9th July and 14th September.

Only one hand-mining site was active on placer claim tenure# 1041164 during 2019 season, (Ref: Table 1, Figures 4, 5, 6). This was at UTM Sector 8v, 587831E/6582296N adjacent to Burdette creeks east bank.

It is estimated a total of 1 cubic yard was mined and sluiced to recover 3 grams gold during the 2019 season.



Photo#2. Venture Tourism brothers prepare to dig "pay dirt". Note large boulders which came from the "pay zone", brought down the creek during flash flooding and believed deposited with the placer gold pre-Wisconsin glaciation 80,000-100,000. years BP. Photo Credit: Quinn Hayden, August 2019.



Photo #3. From L-R, venture tourist, the Author. A high banker, Honda WX10 1.5-inch pump, hoses, 5-gallon pails and all other hand mining equipment was transported each day from Atlin, a 40-60-minute drive, and packed-up and returned to Atlin at the end of the day.

Operations followed a routine, and all venture tourists took part in the work. Using picks and shovels "pay dirt" was mined at Site #1, and then transported to Site #4, (figure 6) for sluicing operations and panning.

A high banker was set-up at Site#4, adjacent to 3-meter by 7-meter sump pit, 2 meters deep. Water was sourced from Burdette creek using 1.5-inch WX10 Honda pump with screened in-take. During pumping and sluicing operations all waste water from the high banker flowed naturally into the sump, avoiding muddy water contamination back into Burdette creek.



Photo #4: Family of 3 sluicing. Sump, not shown is Immediately to the right, and Burdette creek to the centre Left. Photo Credit: Author July 2019



Photo#5. Two brothers cleaning up high banker after sluicing. Sump pit to the right. Photo Credit: Quinn Hayden, August 2019



Photo#6. Showing gravel washed residue from high banker ready to be panned. Photo Credit: Quinn Hayden, August 2019.



Photo #7. Two venture tourists focusing on panning washed gravel Residue. Photo Credit: Author 2019.



Photo#8 A partial cleanup of ½ rice size and smaller gold, Burdette creek, 2019. Credit: Quinn Hayden, August 2019.

When sluicing operation were complete, the residue material from the high banker was collected into a 5-gallon pail and then distributed in plastic gold pans to each venture tourist present. Panning and collecting of gold could take 2 hours, partly due to venture tourists inexperience and afraid to lose any gold.

2019 Survey of Historic Mining Sites and 2016-2019 Hand Mining Operation Sites on tenure 1041164

In order to keep track of reclamation requirements a site survey of historic placer workings, and sites worked under tenure 1041164 was completed. Sites worked in 2016-2019 were also worked historically and inherited by present owner. All sites surveyed are tabulated in Table 3, and Figure 6.

Table 3

Site Survey of Historic and 2016-							
2019 Wining Activity, Tenure 1041164							
Sector U8 V	1100 05						
Surveyed in 2019	Easting	Northing	Notes				
10th May	587931	6582296	Trench mined in 2016-2019				
10th May	587920	6582270	old pit in glacial till				
10th May	587947	6582197	old tailings pile				
10th May	588013	6582100	Sump used in 2016-2019				
10th May	588048	6582115	old Lean-to shed/out house				
10th May	588104	6581968	old wood building planks				
10th May	588038	6582152	abandoned steel plate				
	Sites worked in 2016-2019						
Historic sites, 1968?-2015?							
Charles of the Art of the							

Data Verification

All data included in this report is summarized to the best of the Authors professional experience.

Adjacent Placer Properties

Wilson Creek O'Donnel River McKee Creek

Other Relevant Data

A visit to the Resources Department of the Taku River Tlingit First Nation, (TRTFN) in Atlin by the Author was done in April 2019, to discuss the business goals of <u>Atlin Gold Fields Geotours Inc.</u> Burdette creek officially lies within the Blue Canyon Zone, which is part of The Wóoshtin Wudidaa Atlin Taku Land Use Plan³ and is a Regulated Mining Zone, (RMZ) for mechanized mining purposes.

Atlin Gold Fields Geotours Inc. does not use mechanized mining equipment, and no issues were encountered with TRTFN.

A Notice of Work, (NOW) has not been filed with the Mines Branch in Smithers BC, since mechanized equipment is not being used under the Authors business plan.

Interpretation and Conclusions.

Tenure# 1041164 is an ideal placer claim for hand mining and a venture tourism business.

During 2019, it is estimated 1 cubic yard material was put through the high banker sluice box to recover an estimated 3 grams gold.

Recommendations

Recommendations are to keep TRTFN and Mining Inspectors informed, and to continue with Atlin Gold Fields Geotours Inc. business plan.

We **ÅSPINAL** BRITISH Nicholas Clive Aspinall, P Geologist

4th November 2019

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Appendices

Figures

BRITISH COLUMBIA Mineral Titles Online



Placer Claim Acquisition

Zoom to the area of interest and select the cells you want to acquire.

Please use and tools to add or remove from the selection set. Note: The Mineral Titles Grid layer is visible at smaller scales less than 1:50,000.

Click on the link below to search for existing titles:

• Find Placer Titles

Click Main Menu to go to the main menu.

Clive Aspinall Geological Location Burdette Creek Atlin MD, British Columbia

Figure 3. 4th November 2019

Mineral Titles Online

BRITISH

COLUMBIA



Placer Claim Acquisition

Zoom to the area of interest and select the cells you want to acquire.

Please use and tools to add or remove from the selection set. Note: The Mineral Titles Grid layer is visible at smaller scales less than 1:50,000.

Click on the link below to search for existing titles:

• Find Placer Titles

Click Main Menu to go to the main menu.

<u>Clive Aspinall Geological</u> Location Burdette Creek In Atlin Gold Camp Atlin MD, British Columbia

Figure 4. 4th November 2019



Mineral Titles Online



BRITISH COLUMBIA



Appendix 2 Assessment Work Costs

Table 4

2019 Costs working Placer Claim Tenure #1041164, Burdette creek Atlin MD								
Geologist	Date	Hrs	Rate/hour*	Mining Equip	vehicle	Total		Notes
NC. Aspinall	10-May	8	100		50	\$	850.00	Site Survey**
NC. Aspinall	01-Jun	8	100	50	50	\$	900.00	Testing gravels
NC. Aspinall	28-Jun	8	100	50	50	\$	900.00	Venture Tours
NC. Aspinall	09-Jul	8	100	50	50	\$	900.00	Venture Tours
NC. Aspinall	27-Aug	8	100	50	50	\$	900.00	Venture Tours
NC. Aspinall	14-Sep	8	100	50	50	\$	900.00	Venture Tours
NC. Aspinall	31-Oct	3	100			\$	300.00	A/R preparation
NC. Aspinall	01-Nov	3	100			\$	300.00	A/R preparation
NC. Aspinall	02-Nov	5	100			\$	500.00	A/R preparation
NC. Aspinall	03-Nov	5	100			\$	500.00	A/R preparation
NC. Aspinall	04-Nov	5	100		1200	\$	500.00	A/R preparation
Total		69				\$	7,450.00	
*N.C. Aspinall rate/time only: Does not include work completed by Venture Tourists								
** See Table 3								

Note: 1) 48 hours work accessing and on site= \$ 5,350.00

2) 21 hours work on report=\$2,100.00

Certificate of Authorship

I, Nicholas Clive Aspinall, P.Eng of Pillman Hill, the community of Atlin British Columbia Canada, do hereby certify that:

I am an independent consulting geologist with offices at the above address.

- I am a graduate of McGill University with a B.Sc., (1964), and graduate of Camborne School of Mines, Cornwall, England with a M.Sc., in Mining Geology, (1987). I have over 54 years post university geological experience working worldwide. From: 1965-1973, I was geologist with Canadian Johns-Manville Company Ltd, primarily exploring for minerals in Atlin region; 1974-1980, 1981-1985, I was Project Manager with Rio Tinto Zinc Corporation in Indonesia, Morocco & Saudi Arabia, (RioFinex Ltd); 1988-1992, I was Senior geologist with Australian Pelsart Group in Kalimantan Indonesia, and 1996-2002 I was exploration manager with consultant firm PT. Geotekindo Sabang Merauke in Indonesia; 2002-Present I have been with consultancy, Clive Aspinall Geological Services Inc. registered in Whitehorse, Yukon, servicing junior mining companies in Yukon, NW-British Columbia and Argentina. I am owner of Atlin Gold Fields Geotours Inc, registered in British Columbia.
- In 1981 I completed a geological-geochemical survey for Cominco Ltd. on the then Snip gold prospect in NW-BC. This survey led to further exploration resulting in development and production of the Snip gold deposit. While employed by Rio Tinto Zinc Corporation in Indonesia, I recognized an important molybdenum deposit in Central Sulawesi, (Malala Sulteng), as well as lead-zinc deposits in Kalimantan, (Tanjung Redeb) and Sumatra, (Marang Kiri). During my 1980-1985 mapping projects in Saudi Arabia, I pin-pointed the Al Jalamid phosphate showings as potentially the most significant phosphate prospect in the Turayf region, North Saudi Arabia, which is now the location (2019) of a multi-billion US dollar phosphate project.

- I am registered member of the Association of Professional Engineers and Geoscientists in the province of British Columbia.
- I have 100% title to placer tenure# 1041164, and 100% of tenures # 1047273,1047237,1047239,1057410,1055624, covered in this report.
- I am the Author of Assessment Report: Event 5758411 2019 Atlin Gold Fields Geotours Inc. Taking Venture Tourism Groups Placer Mining on Tenure 1041164, Burdette creek, Atlin MD. Dated 4th November 2019.

We

Nicholas Clive Aspinall, P.Eng Geologist

4th November 2019