YMEP Exploration Final Report
Heather Lakes Aggregate Project
YMEP Grant # 2018-056

NTS Map 105D11

All-In Exploration Solutions Inc.
Whitehorse, Yukon

Copper Haul Road, Whitehorse, Yukon

Whitehorse Mining District

Yukon Territory

Edward Long & Riley Gibson
2/14/2019

Contents

Introduction

The following is the final report on work conducted on the Heather Lakes aggregate prospect under YMEP Grant Number YMEP 18-056

Location

The Heather Lakes aggregate project lies within the City Limits of Whitehorse, Yukon (Figure 1) The geographic location of the project is approximately $60^0$39'5.6"N and $135^0$06'01"W on NTS Map sheet 105D/11 in the Whitehorse Mining District.

Access

The target area can be easily reached by 2WD vehicle from May through late October by entering from either end of the Copper Haul Road (accessed by way of Fish Lake Road or Mt. Sima Road), or via the McLean Lake Road off of the Alaska Highway (Figure 1). An existing ~150m 4x4 road that branches off of the Copper Haul Road is then used to get to the target area.

Land Tenure+ Permitting

The area of the Heather Lakes Aggregate prospect is held under Land Use Permit 2018-S785 valid until April 10, 2020. The permit is held by All-In Exploration Solutions Inc. Several Quartz claims overlap area of the lease that are owned by Kluane Drilling Ltd.

Local Surficial Geology

The surficial geological (or Quaternary) history of the Whitehorse area is dominated by geomorphological process and landforms resulting from the McConnell deglacial sequence. As described in detail by Bond (2007), a 'dance' between glacial ice, ice dams and a great deal of meltwater was underway during this dynamic period, the result of differential rates of regional melting and subsequent retreat between the two glacial ice sources: the Coast and Cassiar Ice Sheets. According to Bond (2007), during the early deglacial sequence in the region, the western margin of the Cassiar lobe (occupying the current Yukon River valley) appears to have retreated south before the Coastal lobe (in the highlands west of Whitehorse and in the present locations of Fish and McIntyre Lakes). As the Cassiar lobe continued to retreat, meltwater from Coastal ice in

the Fish Lake region was able to flow down into the Yukon River Valley from above, creating many large glaciofluvial meltwater channels and temporary ice-dammed lakes in the Whitehorse area. Where the slope of these channels decreased sufficiently, very large amounts of gravel were deposited (as seen nearby at the large McLean Lake Quarry). As shown in Figure 3, Surficial geology of Whitehorse area including Heather lakes aggregate project, after Yukon Geological Survey, 2018.

2018 Exploration Program

Geophysical Survey

Geoplacer Exploration Ltd. conducted five x 300 metre resistivity geophysical surveys on the property. The surveys were along completed on ~1.25 meter wide pre-cut lines. The attached **"Report 1"** details results of the survey as well as an outline of potential drilling target locations.

RC Drilling and Excavator Test Pitting

Five R/C (Reverse Circulation) drill holes totaling ~ 52 meters were drilled along or near the resistivity lines. In addition three shallow test pits were excavated by Hitachi Ex 200 excavator. The RC drill holes were conducted in order to ground truth previously completed geophysical surveys and determine depth to bedrock, depth of the water table, and relative proportions of sand and rock, key variables determining the viability of a potential aggregate quarry.

Modest excavator test pits (please refer to the Figures section) were then completed in order to inspect the actual calibre of the gravel in the immediate vicinity of the drill locations. This was key as the quality of sediment recovery from the RC drill samples was inherently biased toward indicating a finer calibre resource than in reality. The RC drill did not recover any rocks greater than 0.5 inches in diameter and very few rocks between .5 and .2 " were recovered. Furthermore the mechanical process of drilling/hammering through underlying cobbles and boulders (sometimes in several "runs" or consecutive attempts) created a significant portion of fine "rock dust" which also significantly made samples seem finer that the underlying gravel actually was in reality. The coordinates and descriptions of these drill holes and pits are listed in Table 1.

A rough fractional analysis was then conducted on material covered from the RC drill holes as well as the three excavator test pit samples. The sieve station at the Y.G.S. core library was used to sieve apart relative proportions of one kilogram samples from all the five foot interval samples from the five drill holes. Two kilogram samples from the three excavator test pit samples were completed as

one kilogram samples seemed to somewhat reduce the inherent sampling bias/error that would be introduced by having, for example, one half kilogram cobble included. Since the purpose of the exercise was to delineate a rough proportion of fine sediment versus rock the drill sieve results were recorded in relative proportions (A: >11mm-.4.75mm; B: 4.75 mm- >2mm; C: <2mm). Table 2 outlines the results of this analysis that was conducted in order to determine the relative quantities of -2mm (granular size rocks, sand and "rock dust" resulting from rock being pulverized during drilling) versus larger rejected rock that theoretically would make the gravel resource. The drill holes and pits are plotted on profiles and maps following.

Personnel and Dates of Work

May 21- Heritage survey completed on site by owner (Riley Gibson) and YTG Heritage Department staff.

July15 and July 21, 2018: Approximately 4 km of line cutting and brushing paths was completed on site to facilitate upcoming geophysical surveys, drilling, and excavator test pits. The line cutting crew consisted of 4 man crew from All In Exploration Solutions Inc. consisting of Ed Long, Riley Gibson, Leif Martin Berry and Amos Enaibre.

July 24 and July 26, 2018: Five resistivity geophysical surveys totalling approximately 1500 m were completed by Geoplacer Exploration Ltd.

November 30 to December 7, 2018: Approximately 150 feet of RC drilling were completed on the Heather Lakes Aggregate Project by Vision Quest Mineral Innovations.

December 10 to December 12, 2018: Three large excavator test pits were completed on site and subsequently reclaimed by Riley Gibson and Edward Long using their Hitachi 200 excavator.

February 6- February 8 2019: Using the sieve station at the Y.G.S. core library a basic fractional analysis of recovered material from test pits and drill holes was conducted by Riley Gibson and Ed Long.

Results

Table 1: RC Drill Hole Locations & Descriptions

Drill Hole/Test Pit	Actual Depth	Material	Latitude	Longitude
DH18-01	15m	Alluvial	60.653652	-135.100786
DH18-02	15m	Alluvial	60.65323	-135.101166
DH18-03	15.2m	Alluvial	60.65233	-135.099824
DH18-04	7.6m	Alluvial	60.65157	-135.097135
DH18-05	12m	Alluvial	60.652338	-135.097137
TP1	5m	Alluvial	60.653652	-135.100786
TP2	5 m	Alluvial	60.653230	-135.101166
TP3	5 m	Alluvial	60.653610	-135.100810

Table 2: Relative Proportions (3) of 1 Kg Samples

	0-5’			5-10			10-15			15-20'			20-25’			25-30'			30-35'			40-45’		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
R3	30	35	35	30	30	40	23	35	42	32	32	37	35	35	30	15	37	43	32	32	37	27	28	45
C4	23	25	52	12	32	56	25	25	50	21	26	53	37	20	44	30	26	44	45	32	20	25	16	60
R5	50	25	23	25	31	45	37	22	42	24	26	50	34	32	35	17	26	57	31	27	43	40	23	37
R2	9	22	70	31	33	36	16	25	59	12	24	65	EOH											
R1	22	27	50	16	22	63	13	32	54	17	28	55	32	20	48	EOH								

A: **Recovery was limited below 45' in depth due to intersection with the ground water table.**

Table 3: Test Pit Sieve Results: Percentage By Fraction

	Mesh size (inches (*mm*))						
Sample	**.435(*11*)**	**.25(*6.35*)**	**.187(4.75)**	**.157(4)**	**.11(*2.8*)**	**.08(*2*)**	**<0.08(*<2*)**
TP1	**37**	**16**	**6**	**3**	**6**	**5**	**27**
TP2	**47**	**15**	**6**	**7**	**4**	**0.5**	**21**
TP3	**45**	**44**	**18**	**9**	**15**	**14**	**57**

Table 4: Statement of Expenditures

Drilling * see 'CONTRACTOR INVOICES'
$10,762.50

Geophysics* see 'CONTRACTOR INVOICES'
$12,600

Trucking * see 'CONTRACTOR INVOICES'
$472.50

Excavator Rental
$15,000

EXCAVATOR TEST PITS

Operator & Labour	**10-Dec-18**	**11-Dec-18**	**12-Dec-18**
$400/day/man	$800	$800	$800
Daily Field Expenses			
$100/day/man	$200	$200	$200
Truck Rental			
$50/day	$50	$50	$50
Total	**$3,150**		

FRACTION ANALYSIS	**25-Jan-19**	**26-Jan-19**	**27-Jan-19**	**Total**
Truck Rental	$50	$50	$50	$150
Daily Field Expenses($100/day/man)	$200	$200	$200	$600
2 man @$400/man/day	$800	$800	$800	$2,400
Total	**$3,150**			

LINE CUTTING	**15-Jul-18**	**16-Jul-18**	**17-Jul-18**	**18-Jul-18**	**19-Jul-18**	**20-Jul-18**	**21-Jul-18**
Ed	$400	$400	$400	$400	$400	$400	$400
Riley	$400	$400	$400	$400	$400	$400	$400
Leif	$400	$400	$400	$400	$400	$400	$400
Amos	$400	$400	$400	$400	$400	$400	$400

Daily Field Expenses	**4 Man**	**4 Man**	**4 Man**	**4 Man**	**4 Man**	**4 Man**	**4 Man**
$100/day/man	$400	$400	$400	$400	$400	$400	$400
Truck Rental							
$50/day	$50	$50	$50	$50	$50	$50	$50
Chainsaw Rental	**2 Saws**						
$10/day/saw	$20	$20	$20	$20	$20	$20	$20
Total	**$14,490**						

Grand Total	**$59,625.00**
Report 10%	**$5,962.50**
Total Expenses	**$65,587.50**

Discussion and Conclusion

The exploration program to date indicates a significant volume of aggregate material in the project area. The 2018 exploration program, supported by YMEP, was successful in many regards and certainly helped expand our previously limited data of the property. The completion of 1500 metres of geophysics followed by limited (~150') RC drilling greatly increased our estimation of the potential reserve on site. A depth in excess of 45 feet of potentially economic aggregate at three of the five drill sites positively indicates a substantial economic aggregate reserve, at least within that limited area. RC drill Holes R2 and R1 delineated the eastern margin of the prospective reserve (also useful knowledge) as indicated by the shallower total depth and significantly higher portion of fine sediment (<2mm). Drilling also indicated that holes R3, C4 and R5 all began to encounter the groundwater table at approximately 45 feet in depth, an important geotechnical variable to understand. Drilling also confirmed that the geophysical resistivity survey(ors) and the resultant interpretation of the potential bedrock contact was correct within a 10% margin and was therefore a useful tool to continue utilizing in the future.

Although drilling was successful in indicating where bedrock and the water table were located as well as relative proportions of fine material, this tool could not recover aggregate material that could be an adequate gauge of the relative calibre of the gravel to be expected within the reserve. No rocks greater than 0.5 inches were recovered and obviously the RC drill could either not "suck" larger rocks up from any depth while sampling, *or* pulverized all rocks to a size much less than 0.5 inches while descending. The test pits were conducted in the immediate proximity of the RC drill holes and the recovered sieved samples (Table 3) proved that the gravel at the site was much coarser than indicated by samples recovered from the RC drill holes. In truth, the sieved samples from all three test pits still err on the side of being too fine as cobbles and boulders were not represented as a faction. They simply could not fit in the 5 gallon buckets, or into the sieve station for that matter. The test pit samples therefore likely indicate that at least 50% of the material per unit volume will be rock greater than 0.5 inches in diameter.

Future Recommendations

The 2018 aggregate exploration program provided invaluable data and knowledge and was a successful first step towards the creation of an aggregate resource. However promising the early results appear, the true extent, volume, and economic feasibility of the aggregate itself is still

undetermined and warrants further exploration. Unfortunately only a small area of the 22 hectare exploration area under the current Land Use Permit has been explored to any degree. Further thorough aggregate exploration utilizing geophysics supported by drill and excavator testing will seek to extend the reserve indicated during the 2018 season towards the west and south. The current Land Use Permit extends through to early 2020 and therefore efforts in 2019 shall seek to complete a larger more extensive aggregate exploration program in order to have the project ready to begin early zoning and development under a new quarry permit in late 2019 or early 2020.

Statement of Qualifications

I, Adam Riley Gibson, Prospector, certify that:

1) I reside at 106 Titanium Way, Whitehorse, Yukon, Y1A 0E8.
2) I am Vice-President, part owner of, and employed by All-In Exploration Solutions Inc. of Whitehorse, Yukon.
3) I graduated from The University of Lethbridge in Lethbridge Alberta in 2012 with a Bachelor of Science Degree in Archaeology and Physical Geography.
4) I have spent time prospecting on and around the target area.

Dated this 14 day of February 2019, at Whitehorse, Yukon.

_____

A.R. Gibson (Prospector)

Figures

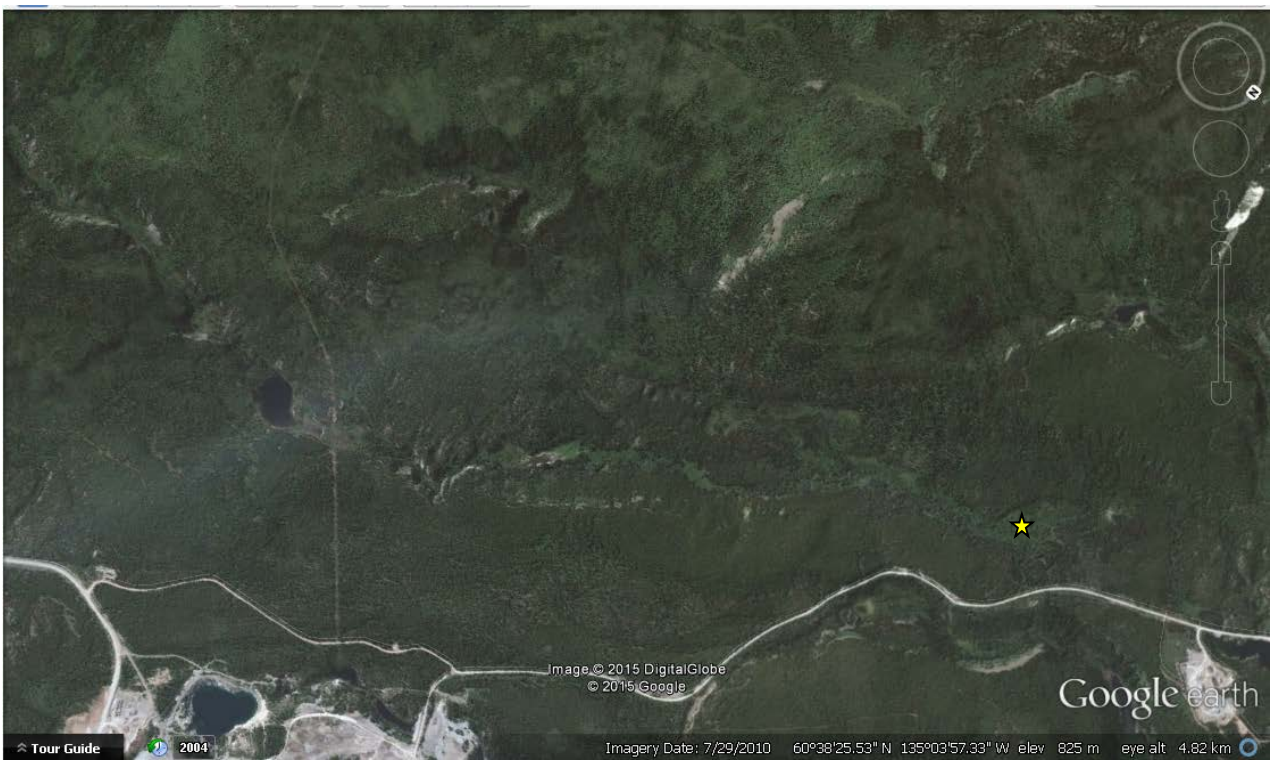


Figure 1: Glacial meltwater channel and target area

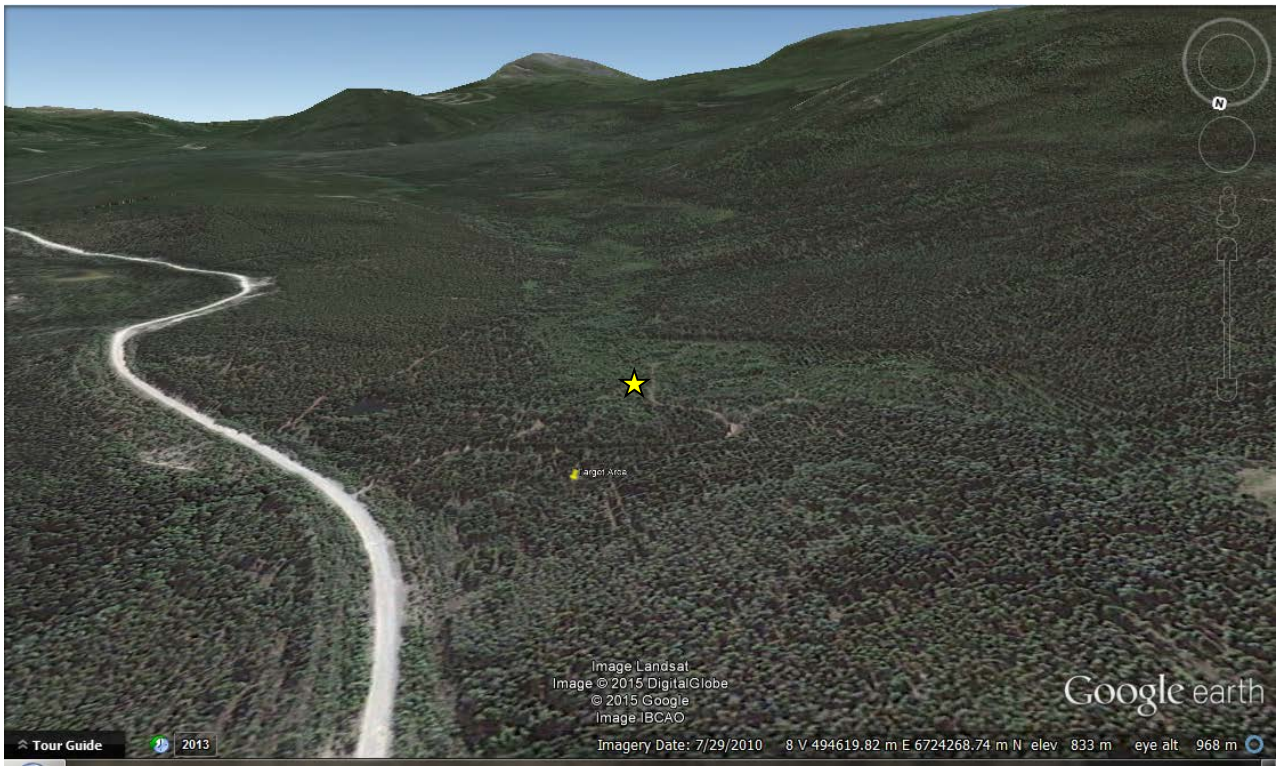
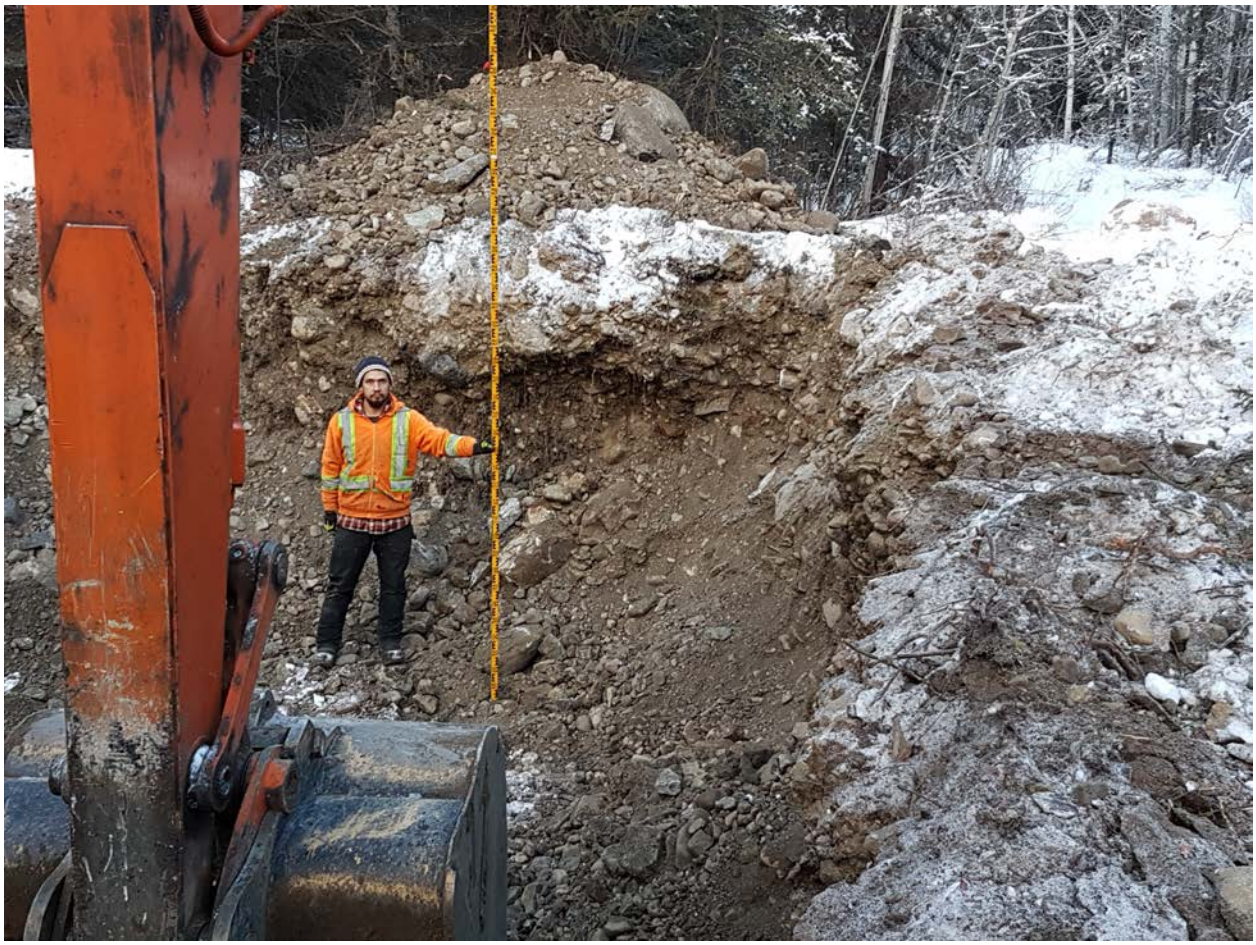


Figure 2: Meltwater channel looking upstream towards Mt. Sima.

Figure 3: Pit 1 gravel from ~2-4 m in depth

Figure 4: Test Pit 1

Figure 5: Test Pit 2



Contractor Invoices

MERCER CONTRACTING

Mercer Contracting
Suite 417-108 Elliott Street
Whitehorse, Yukon Y1A 6C4
Tel (867) 393-3648
Fax (867) 393-3646

INVOICE

 # 450211

Date: Dec 08, 2018

Page: 1

PO/ Order #

Bill To:

All In Exploration

Ed Long
113A Platinum Rd
Whitehorse, YT Y1A 5M3

(867) 332-6011
allinexploration@gmail.com

Qty	Unit	Item	Description	Tax	Unit Price	Total
2	Hours		Haul 200 Hitachi excavator from Range Road, YT to McLean Lake, YT.	G	225.00	450.00
			G - GST, 5% not included			
			GST			22.50

Payable upon receipt. 2% interest will be charged monthly on overdue accounts.
GST Number - 807 460 209 RT0001
SK PST Number - 5890520
BC PST Number - 1057-6115

Total Amount 472.50

Geoplacer Exploration Ltd.

Invoice

13 Tigereye Crescent, Whitehorse, Yukon Y1A 6G6

Date: December 19, 2018
Invoice #: 2018-022
Customer ID: FTG Mining Ltd

To: FTG Mining Ltd
105 Platinum Road
Whitehorse, Yukon
Canada Y1A 5M3
T: (867) 332-4437

Payment Terms		Date
Amount due on receipt: interest after 30 days	2%	December 19, 2018

Description	Item type	Amount	*Rate Per Item	Subtotal	GST	Totals
Resistivity geophysical surveys, Whitehorse Quarry Lease	line-km	1.5	$ 8,000.00	$ 12,000.00	$ 600.00	$ 12,600.00
Final geophysics report	included					
*Discounted rate due to pre-cut lines and proximity to Whitehorse						
Total due						$ 12,600.00

Dates of Work onsite: July 24 to 26, 2018

Please pay in Canadian Funds to Geoplacer Exploration Ltd.
13 Tigereye Crescent, Whitehorse, YK Y1A 6G6 (867) 334-1461 wiebarge@gmail.com
GST #829278712RT0001
Bank Wiring Information:
Bank customer: Geoplacer Exploration Ltd.
Account number 09980-001-1993-783
Swift Code BOFMCAM2 Routing number 026005092
BANK OF MONTREAL
111 Main St.

VISION QUEST
MINERAL INNOVATIONS
DRILLING - EXPLORATION - MAPPING - TRAINING
8B VERSLUCE PLACE, WHITEHORSE, YUKON Y1A 5M1
867.335.3693 - www.visionquestx.ca

- INVOICE -

Attention: Ed Long
All In Exploration
Tel: (867) 332-4437
Email: allinexploration@gmail.com

INVOICE #10
Date Issued 10-Dec-18
Terms Contract Drilling

Description of Services & Expenses

Re: Drilling on Quarry Property, Whitehorse Copper area, from the period of Nov.30 to Dec.7, 2018.

Description of Activities	Unit Cost	Qty.	Sub-Total
Fees			
Hole #1: 45 ft	$ 50.00	45	$2,250.00
Hole #2: 45 ft	$ 50.00	45	$2,250.00
Hole #3: 45 ft	$ 50.00	45	$2,250.00
Hole #4: 20 ft	$ 50.00	20	$1,000.00
Hole #5: 40 ft	$ 50.00	40	$2,000.00
		Total Fees	$9,750.00
Expenses			
Mob to each hole	$ 100.00	5	$500.00
		Total Expenses	**$500.00**

	Sub-Total	$10,250.00
GST #: 75774 0311 RT0001	**GST**	$512.50
BN #: 75774 0311	**Total**	**$ 10,762.50**

All-In Exploration Inc.

106 Titanium Way
Whitehorse, Yukon Y1A 0E8
Canada

INVOICE

Invoice No.: 110244
Date: 27/01/2019
Ship Date:
Page: 1
Re: Order No.

Sold to:

All-In Exploration Solutions Inc.
113A Platinum Road
Whitehorse, Yukon Y1A 5M3

Ship to:

All-In Exploration Solutions Inc.
113A Platinum Road
Whitehorse, Yukon Y1A 5M3

Business No.:

Item No.	Unit	Quantity	Description	Tax	Unit Price	Amount
		1	Drilling (as per invoice)	I	10,762.50	10,762.50
		1	Geophysic s(as per invoice)	I	12,600.00	12,600.00
		1	Trucking (as per invoice)	I	472.50	472.50
		1	Hitatchi Ex 200 Excavator 1 Month	G	15,000.00	15,000.00
		3	Operator and Labourer December 10-12 2 Man@$400/day/man(3 days)	G	800.00	2,400.00
		6	Daily Field expenses Dec-10-12 2 man(3 days)	G	100.00	600.00
		3	Truck Rental $50/day Dec 10-12 (3 days)	G	50.00	150.00
		3	Fraction Analysis 2man@$800/day Jan 24-26(3 days)	G	800.00	2,400.00
		6	Daily Field expenses January 24-26 2 man $100/day/man (6 days)	G	100.00	600.00
		3	Truck Rental $50/day January 24-26 (3 days)	G	50.00	150.00
		7	Line Cutting Heather Lakes Aggregate area July 15-21 2018 (4 man crew @1600/day)	G	1,600.00	11,200.00
		7	Daily Field Expenses July 15-21 2019 4 man (7 days)	G	400.00	2,800.00
		7	Truck Rental July 15-21 2019 $50/day (7 days)	G	50.00	350.00
		7	Chainsaw Rental $10/day/saw July 15-21 2018	G	20.00	140.00
		1	Report 10% Subtotal ($5962.5)	G	5,962.50	5,962.50
			G - GST 5% I - GST @ 5%, included			
			GST		1,135.00	2,087.63
All-In Exploration Inc. GST: #81723 6409 RT0001						

Shipped By: Tracking Number:

Comment: Interest is charged at 1.5% per 30 days

Sold By:

Total Amount 67,675.13