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ALTO VENTURES LTD.  
BROOKBANK EAST PROJECT

REPORT ON THE 2018 SUMMER FIELD PROGRAM

LEDUC TOWNSHIP  
THUNDER BAY MINING DISTRICT  
ONTARIO  
NTS 42E/12

Sudbury, Ontario  
October 15, 2019

Mike Koziol, P. Geo.

## SUMMARY

A field program consisting of prospecting and bedrock grab sampling was completed by Alto Ventures on the Brookbank East property in July, 2018. The Brookbank East Property includes 63 contiguous single cell mining claims that cover approximately 1,310 ha and is located in the Leduc Township approximately 40 Km northeast from the town of Beardmore, in NTS maps sheet 42E12. Access to the property is by Highway Number 11 to Nezah then by the all-weather 801 Road for approximately 8 km to Paint Lake. From Paint Lake a boat is required to access the Namewaminikan River and the claims.

The purpose of the program was to relocate some of the historical gold occurrences in the Trench Lake area and prospected areas of previously reported alteration and shearing. Approximately 20 line km of prospecting was carried out and the main historical trenches relocated. Grab samples of bedrock were taken from the trenches as well as other areas of alteration and mineralization. In total, 68 bedrock grab samples were collected and analysed, 17 of these were off property just north of the claim boundary.

Alto's results confirm the presence of gold in the Trench Lake area, best grab sample returning 8.04 g/t Au from the West Trench and weakly anomalous gold (up to 0.085 g/t Au) from the East Trench. One anomalous grab sample of 0.52 g/t Au was obtained from northeast of Trench Lake near the north contact between the metaconglomerate and volcanic units.

Based on the results from this program, further prospecting is recommended in the Trench Lake area and the area to the northeast of Trench Lake. The prospecting should focus along the north and south contacts between the metasedimentary unit and the two mafic volcanic units.

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## 1.0 INTRODUCTION

This report describes the field program completed by Alto Ventures on the Brookbank East property from July 18, 2018 to July 22, 2018. The program consisted of prospecting and bedrock grab sampling of areas selected from compilation of historical work.

### 1.1 Property

The Brookbank East Property includes 63 contiguous single cell mining claims that cover approximately 1,310 ha. These claims are located in the Leduc Township, in the Thunder Bay Mining District, and are covered by NTS map sheet 42E/12, UTM NAD83 Zone 16 (see in Figure 1). The claims making up the two properties are listed in Table 1 and illustrated in Figure 2.

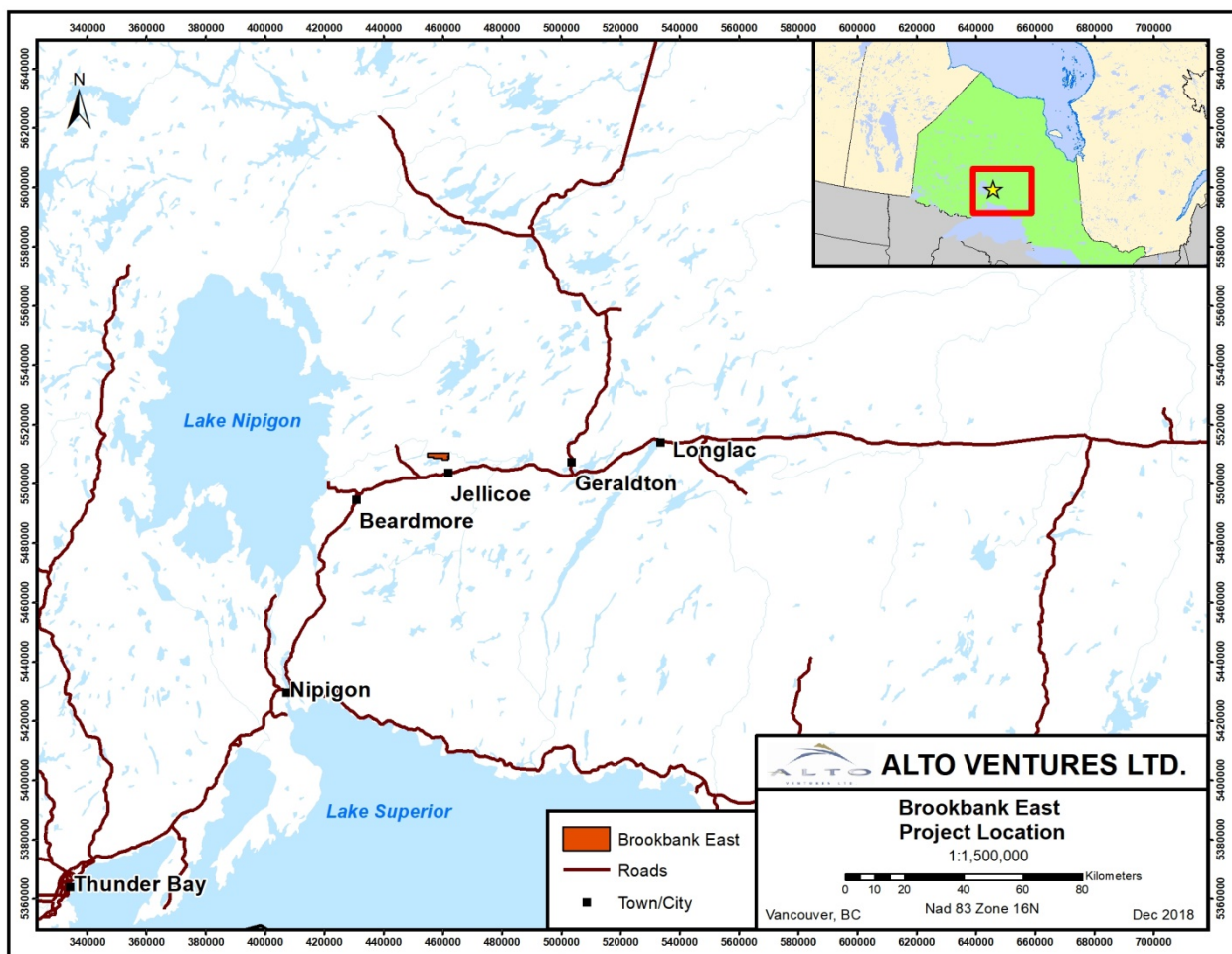


Figure 1 Brookbank East Project Location Map

**Table 1: List of claims in the Brookbank East Property**

<b>Township / Area</b>	<b>Tenure ID</b>	<b>Tenure Type</b>	<b>Anniversary Date</b>	<b>Work Required</b>
LEDUC	500476	Single Cell Claim	2020-04-10	400
LEDUC	500477	Single Cell Claim	2020-04-10	400
LEDUC	500478	Single Cell Claim	2020-04-10	400
LEDUC	500479	Single Cell Claim	2020-04-10	400
LEDUC	500480	Single Cell Claim	2020-04-10	400
LEDUC	500481	Single Cell Claim	2020-04-10	400
LEDUC	500482	Single Cell Claim	2020-04-10	400
LEDUC	500483	Single Cell Claim	2020-04-10	400
LEDUC	500484	Single Cell Claim	2020-04-10	400
LEDUC	500485	Single Cell Claim	2020-04-10	400
LEDUC	500486	Single Cell Claim	2020-04-10	400
LEDUC	500487	Single Cell Claim	2020-04-10	400
LEDUC	500488	Single Cell Claim	2020-04-10	400
LEDUC	500489	Single Cell Claim	2020-04-10	400
LEDUC	500490	Single Cell Claim	2020-04-10	400
LEDUC	500491	Single Cell Claim	2020-04-10	400
LEDUC	500492	Single Cell Claim	2020-04-10	400
LEDUC	500493	Single Cell Claim	2020-04-10	400
LEDUC	500494	Single Cell Claim	2020-04-10	400
LEDUC	500495	Single Cell Claim	2020-04-10	400
LEDUC	500496	Single Cell Claim	2020-04-10	400
LEDUC	500497	Single Cell Claim	2020-04-10	400
LEDUC	500498	Single Cell Claim	2020-04-10	400
LEDUC	500499	Single Cell Claim	2020-04-10	400
LEDUC	500500	Single Cell Claim	2020-04-10	400
LEDUC	500501	Single Cell Claim	2020-04-10	400
LEDUC	500502	Single Cell Claim	2020-04-10	400
LEDUC	500503	Single Cell Claim	2020-04-10	400
LEDUC	500504	Single Cell Claim	2020-04-10	400
LEDUC	500505	Single Cell Claim	2020-04-10	400
LEDUC	500506	Single Cell Claim	2020-04-10	400
LEDUC	500507	Single Cell Claim	2020-04-10	400
LEDUC	500508	Single Cell Claim	2020-04-10	400
LEDUC	500509	Single Cell Claim	2020-04-10	400
LEDUC	500510	Single Cell Claim	2020-04-10	400
LEDUC	500511	Single Cell Claim	2020-04-10	400
LEDUC	502932	Single Cell Claim	2020-04-10	400
LEDUC	502933	Single Cell Claim	2020-04-10	400
LEDUC	502934	Single Cell Claim	2020-04-10	400
LEDUC	502935	Single Cell Claim	2020-04-10	400
LEDUC	502936	Single Cell Claim	2020-04-10	400
LEDUC	502937	Single Cell Claim	2020-04-10	400

LEDUC	502938	Single Cell Claim	2020-04-10	400
LEDUC	502939	Single Cell Claim	2020-04-10	400
LEDUC	502940	Single Cell Claim	2020-04-10	400
LEDUC	502941	Single Cell Claim	2020-04-10	400
LEDUC	502942	Single Cell Claim	2020-04-10	400
LEDUC	502943	Single Cell Claim	2020-04-10	400
LEDUC	502944	Single Cell Claim	2020-04-10	400
LEDUC	502945	Single Cell Claim	2020-04-10	400
LEDUC	502946	Single Cell Claim	2020-04-10	400
LEDUC	502947	Single Cell Claim	2020-04-10	400
LEDUC	502948	Single Cell Claim	2020-04-10	400
LEDUC	502949	Single Cell Claim	2020-04-10	400
LEDUC	502950	Single Cell Claim	2020-04-10	400
LEDUC	502951	Single Cell Claim	2020-04-10	400
LEDUC	502952	Single Cell Claim	2020-04-10	400
LEDUC	502953	Single Cell Claim	2020-04-10	400
LEDUC	502954	Single Cell Claim	2020-04-10	400
LEDUC	516178	Single Cell Claim	2020-04-13	400
LEDUC	516179	Single Cell Claim	2020-04-13	400
LEDUC	516180	Single Cell Claim	2020-04-13	400
LEDUC	516181	Single Cell Claim	2020-04-13	400
Total cells	63			25200

The work described in this report was completed on claims 500478, 500486, 500488, 500490, 500491, 500496, 502932, 502933.

## 1.2 Location, Access, Infrastructure and Topography

The property is located in the Leduc Township approximately 40 Km northeast from the town of Beardmore, in NTS maps sheet 42E12 (See Figure 1). Access to the property is by Highway Number 11 to Nezah then by the all-weather 801 Road for approximately 8 km to Paint Lake. From Paint Lake a boat is required to access the Namewaminikan River and the claims.

Infrastructure in the Beardmore-Geraldton-Longlac area includes general and skilled labour, heavy equipment, local accommodations, paved roads and easy access to the electrical grid. More specialized services can be obtained from the larger communities of Thunder Bay, Timmins and Sault Ste. Marie.

The topography in the area is characterized by a series of east to northeast trending bedrock ridges up to twenty-five metres high that are separated by lakes and creeks, swamps, ponds and muskeg-filled valleys. Overburden is estimated to range in thickness from less than one metre to a few tens of metres. All of the current work area is covered by mature forest and bedrock exposures are limited to outcrop knobs and

ridges and ranges between locally abundant to areas where bedrock is accessible only through trenching. Much of the outcrop in the flat and forested areas is overgrown by up to 30 cm of moss.

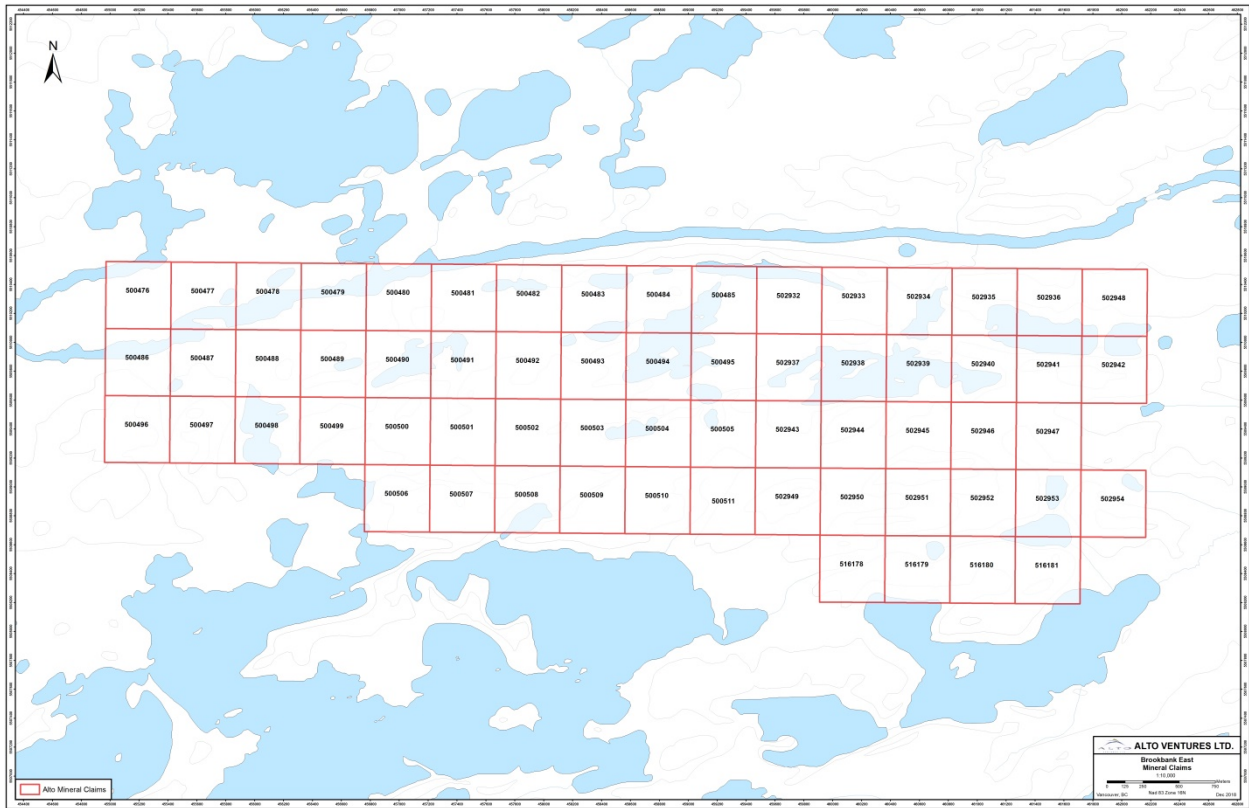


Figure 2 Brookbank East Claims Map

## 2.0 GEOLOGY

### Regional Geology

The property lies in the Beardmore-Geraldton greenstone belt, within the southern Wabigoon lithotectonic domain of the Superior Province. The belt is significant due to its historical production of more than 4.1 million ounces of gold from shear hosted high grade quartz vein systems and deposits associated with banded iron formation units. Figure 3 illustrates the regional geology near the project and some of the known gold occurrences.

The greenstone belt is some 90 km long and is composed of repeating metavolcanic and metasedimentary units which are bounded by shear zones. The BGB has undergone multiple deformation events with foliation typically east trending and steeply dipping (Toth et al., 2013). Devaney and Williams (1989) recognized three sub-belts of metavolcanic rocks separated by sub-belts of sedimentary rocks. The Brookbank East project covers portions of the northern- most metasedimentary rocks, including conglomerates, greywacke and siltstone as well as units of mafic volcanic rocks from the central volcanic unit, including flows and tuffs.



The Paint Lake Fault is a major crustal structure that occurs near the boundary of the Beardmore-Geraldton greenstone belt and the Toshota Domain to the north. The ca. 2740 Ma Elmhirst-Rickaby episode represents the southernmost margin of the Onaman-Tashota greenstone belt, a portion of the Eastern Wabigoon Sub-Province within the Superior Craton, and comprises one of the largest calc-alkaline andesitic volcanic packages currently recognised in the Archean (Strongman et al., 2018).

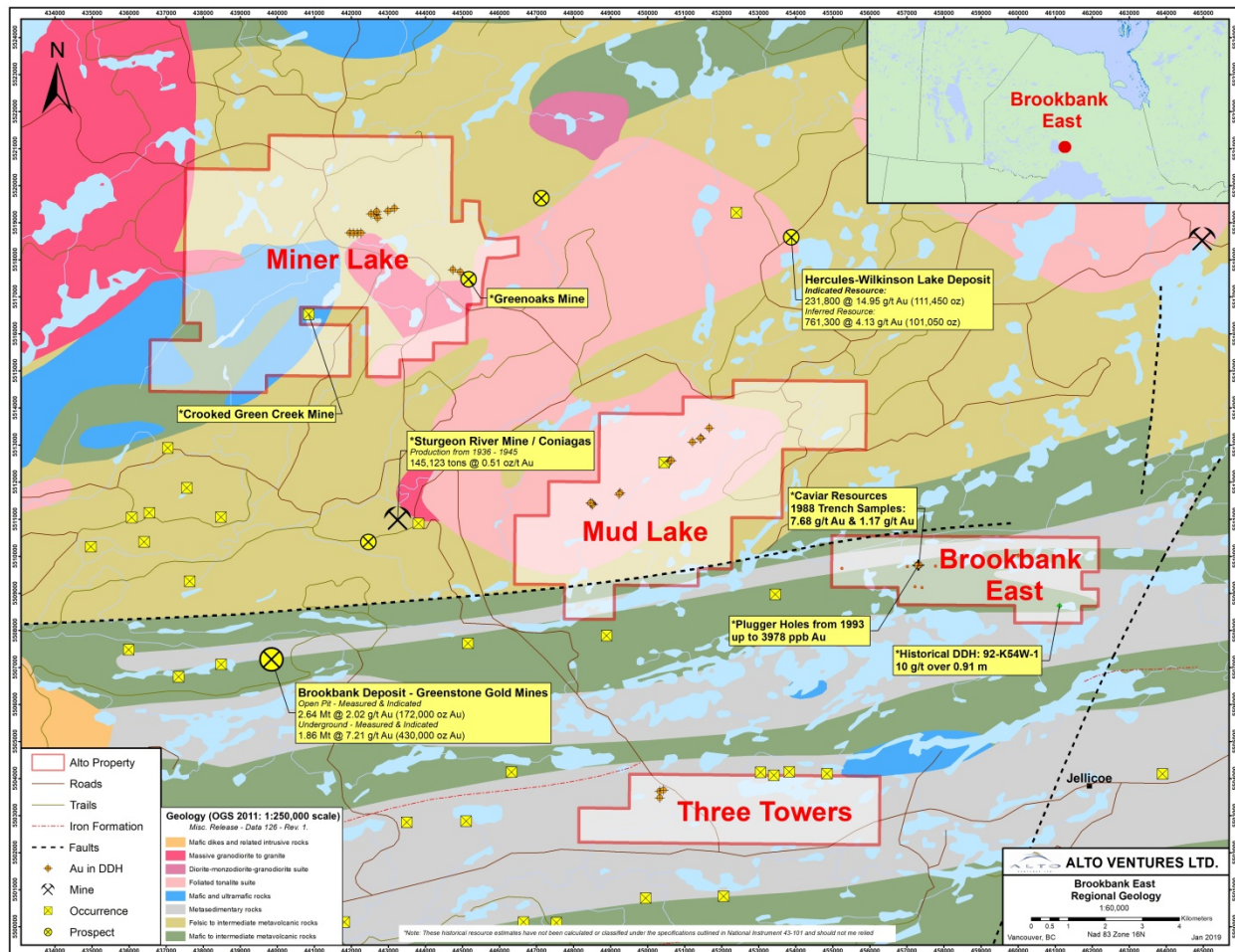


Figure 3 Alto Ventures Properties – Beardmore Area Regional Geology

## Property Geology

Most of the Brookbank East claims were mapped in detail previously by Lassila (1988) and the geology as illustrated in Figure 4 has been modified from Lassila (1988) in areas where new information has been obtained from Alto's 2018 program. The property can be subdivided in three main geological areas as described below.

### *Area between the Paint Lake Fault and the Metaconglomerate Unit*

This northern part of the Brookbank East property is dominated by mafic to intermediate volcanics. Shearing is common with well foliated rocks and often altered to chlorite and chlorite-sericite schist. Minor carbonate and quartz generally occur parallel to the foliation. A few locations exhibited crenulated folding. A section of massive to poorly foliated mafic to intermediate volcanic rocks lies just north of

Trench Lake in a package that is over 300 m wide. Few sulphides were found in this unit with only one sample returning anomalous gold at 0.21 g/t.

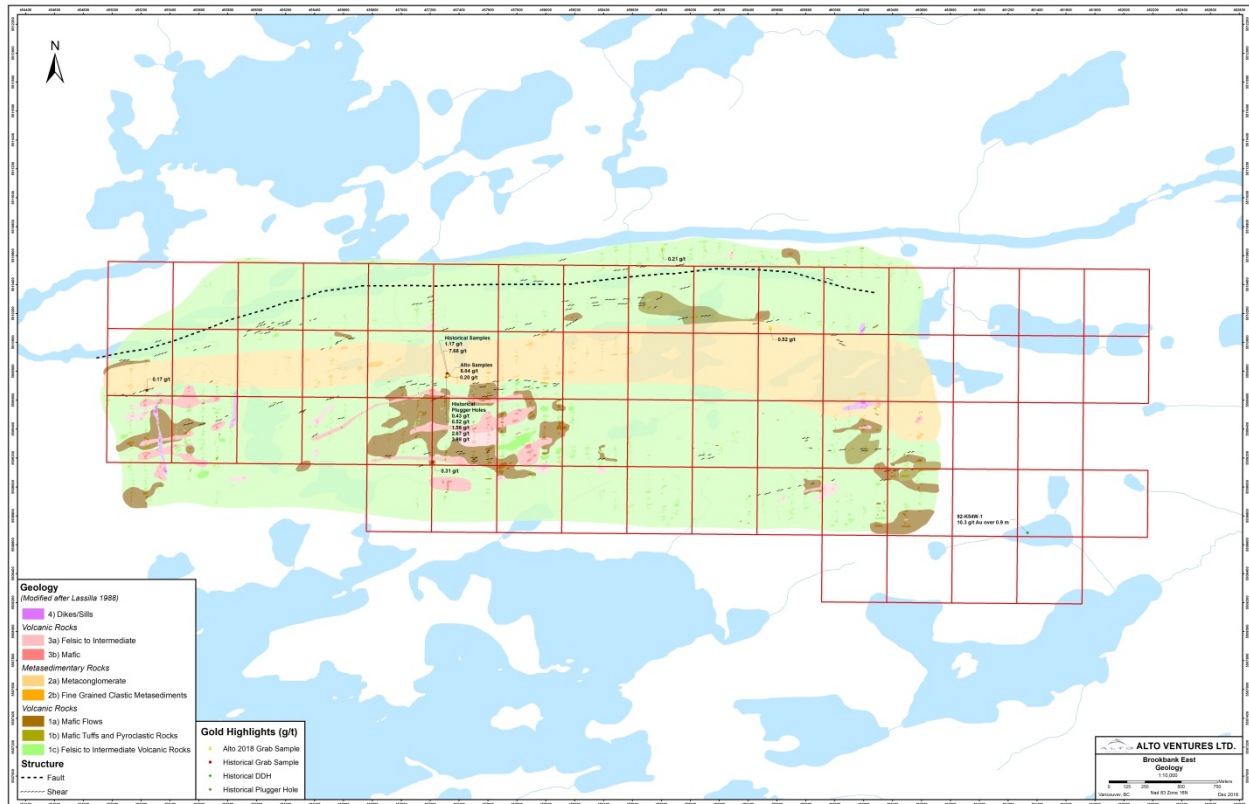


Figure 4 Brookbank East Geology

### *Metaconglomerate Unit*

The central part of the Property contains a package, 300 m to 700 m wide, containing mostly polymictic metaconglomerate units. The conglomerates are composed of closely packed and poorly sorted pebble and cobble clasts of many lithologies. The less competent clasts tend to be well flattened and foliated, while the more competent clasts retain most of their original form. Near both the north and south contacts of the metaconglomerate unit and the volcanics the metaconglomerate unit includes finer grained sediments which have been extremely flattened and usually altered into lensoidal banded schists. A few, generally north striking, diabase dykes cut the metaconglomerate unit (Appendix A photo 4).

### *Area South of the Metaconglomerate Unit*

The southern part of the Property is more lithologically diverse with various volcanic rocks making up a dominant part of the area with intrusive phases irregularly interspersed within the volcanic sequences. The intrusives vary from quartz diorite to gabbro and commonly have well saussuritized feldspars and minor quartz veinlets along fractures. The volcanics are composed of intergrading flows ranging from andesite to dacite and occur mainly as weakly banded flows, generally foliated, and exhibiting saussurite seams and clots parallel to the foliation. Pillow lavas are seen in a few locations and are well flattened and have a well foliated banded texture. The more mafic flows are altered to chlorite schist. Within the mafic volcanics are occasional narrow rhyolitic flows and tuffs up to 50 m in thickness. Overall the

whole volcanic sequence contains compositional intergradations both across and along strike. A few diabase dikes also cut southern volcanic sequence. Shearing and schistosity are most pronounced in the central part of the property but many minor shears are evident elsewhere.

### **3.0 PREVIOUS WORK**

Evidence of previous exploration work was reported by Lassila (1988) in his report describing the geological mapping and prospecting completed during the summer of 1998 on an area that covers most of the current Brookbank East Project. Lassila found numerous caved and overgrown trenches and remnants of an exploration camp in the southwest corner of Trench Lake. Lassila speculates that the work dates back to the 1930's.

In 1988 Caviar Resources Ltd. and Dubawnt Resources Ltd. completed geological mapping and prospecting programs on their adjoining Caviar-Dubawnt properties (42E12NE0020). The work included line cutting on 100 m line spacing and approximately 108 line km of geological mapping. Prospecting was also carried out to locate old trenches which were found to be abundant in several areas but mainly near Trench Lake. As part of the program, 34 bedrock samples were collected and assayed. Results from bedrock samples were generally low, with three samples returned greater than 1 g/t Au including 6.97 g/t from an old trench near Trench Lake.

In 1991 prospectors Darren Goodman and Cameron Enders completed a bulldozer stripping and saw cut channel sampling program on their Beatty Lake Project Western Occurrence (Trench Lake) exposing altered volcanic rocks and metasediments including conglomerate (42E12NE8343). Gold results obtained in the conglomerates ranged from 5 ppb to 177 ppb and in the mafic volcanics from 5 ppb to 1,946 ppb.

In 1991, Mr. Jean Leclerc completed a program consisting of 83 plugger holes and assaying of the plugger chips and powder on the Trench Lake area (42E12NE0231). The plugger holes were drilled vertical and ranged in depth from 0.6 m (two feet) to 1.8m (six feet). Typically assay results were low, generally less than 10 ppb but a number of significant anomalies were obtained including on two foot sample that assayed 3,978 ppb. The dimensions of the area of anomalous gold are 2.3 m in width by 6.6 m in length (Figure 5).

In 1998 Founder Resources completed five AQ diamond drill holes totalling 305 m (1000 feet) to test the stripped areas at Trench Lake as part of Founder's Beatty Lake exploration program (42E12NE2004). Based on summary of the drilling, the Trench Lake Zone is deformed, altered and mineralized within the mafic volcanic rocks and polymictic conglomerate as many narrow lenses. Alteration described includes chlorite, sericite silica and quartz-carbonate veinlets. Fine disseminated pyrite is reported to be associated with some of the altered areas, locally up to 2%. The core was taken to Val d'Or after drilling and has not been sampled as per the 2018 diamond drilling report.

In 1992 Founder Resources completed six drill holes totalling 1375 m (4511 feet) in the southeast corner of the Brookbank East Property (Figure 5). One of the drill holes, 92-K-54W-1 intersected several sections of weakly anomalous gold including a three foot interval that assayed 0.3 oz/ton Au (10 g/t/0.91 m) near the contact between mafic volcanic rocks and conglomerate.

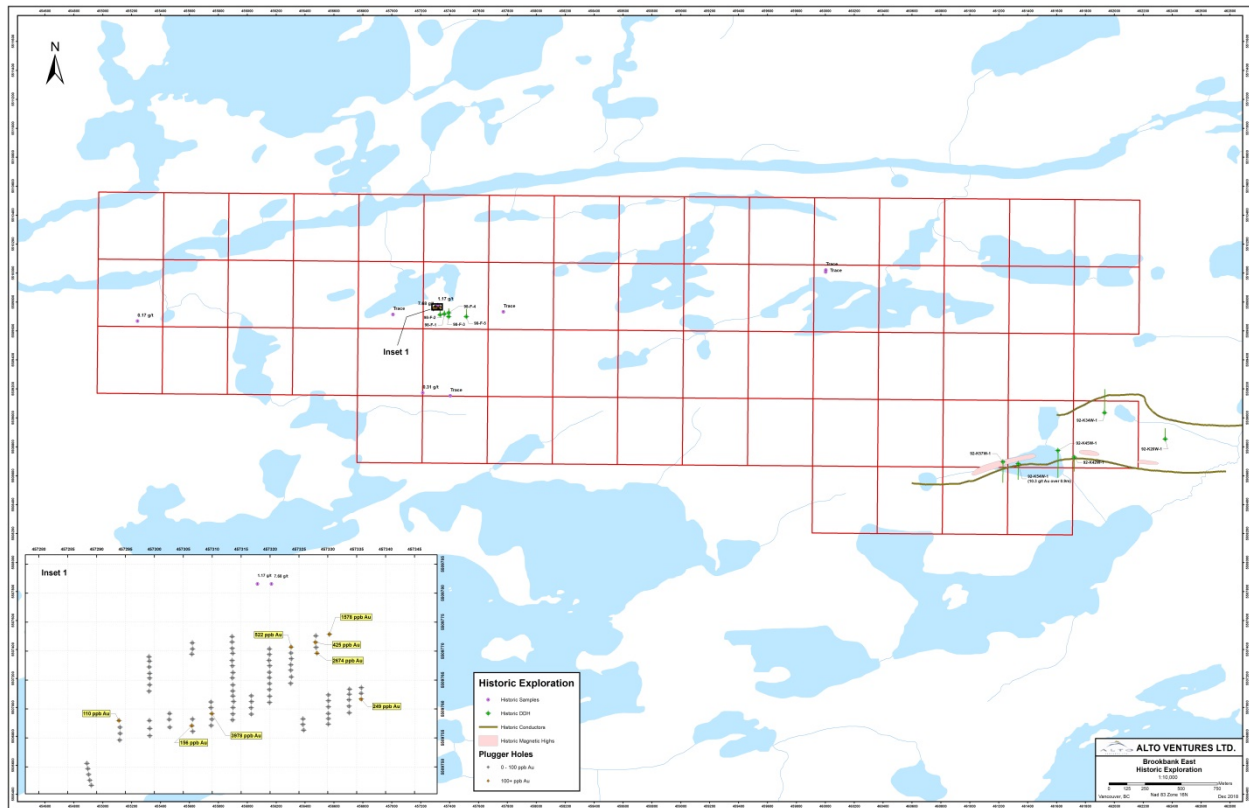


Figure 5 Brookbank East Historical Exploration

## 4.0 ALTO'S 2018 SUMMER FIELD PROGRAM

### 4.1 Work Completed, Logistics and Sampling Procedures

Prospecting was carried out by a four person crew including Mike Koziol, P.Geo., Marko Bogdanovic, Richard Cote and Nikolay Bashaev. The purpose of this program was to relocate the historical Trench Lake gold occurrence and grab sample some of the mineralized rock to confirm the previous gold results. In addition to Trench Lake, prospecting was carried west and northeast of Trench Lake. Geological notes and observations were made during the prospecting to better help understand the mineralization. Rock sample descriptions and notes on geological observations made during the program are presented in Appendix A and sample locations are illustrated in Figure 6.

The field work was completed from July 18 to July 21, 2018. Pre-field preparations and compilation of known geology and previous work was completed at various times from April 10, 2018 to July 18, 2018.

The field crew was based in Beardmore, accommodated at the Roxy Place Motel. Access to the property from Beardmore was by two pickup trucks to Paint Lake and then by 18 foot boat and motor to access the north end of the property. Approximately 20 line km were prospected and in total 68 grab rock samples were collected and assayed for gold and analysed 30 other elements (Figures 6 and 7).

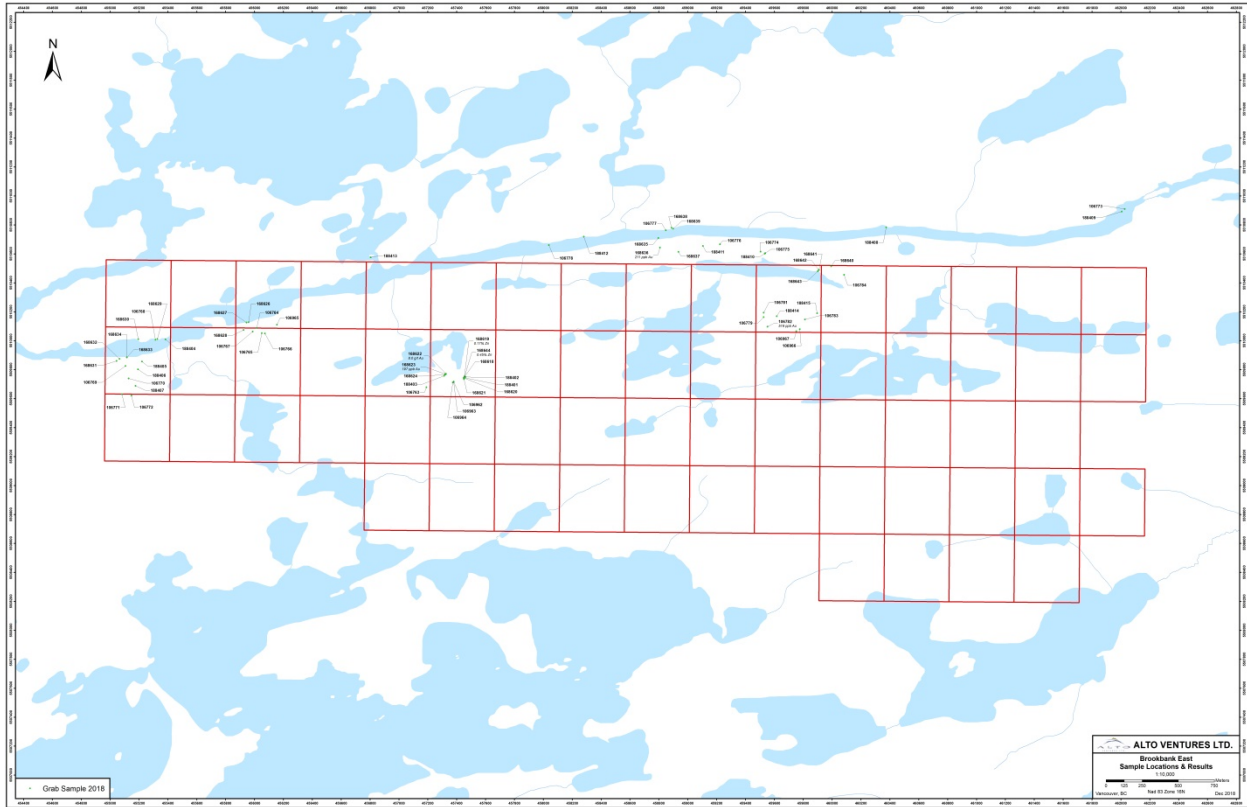


Figure 6 Brookbank East Sample Locations and Results

The 68 grab bedrock samples were shipped to AGAT Labs in Thunder Bay, Ontario where they were crushed and pulverized and then shipped to Mississauga, Ontario for assaying and ICP analyses as described below in AGAT’s Quality Control Statement:

**“QUALITY CONTROL STATEMENT**

AGAT Laboratories offers specialized geochemical and assaying services for the mineral exploration industries. Our Mining Geochemistry Laboratory is accredited to ISO 17025 by the Standards Council of Canada (SCC). Through our advanced instrumentation and with experienced scientific professionals, we offer consistent quality analysis with fast turn-around of results.

All samples are dried and crushed to 75% passing 10 mesh (2mm), split to 250g and pulverized to 85% passing 200 mesh (75µm), (Code 200001). 0.5g of sample is digested with Aqua regia for one hour using temperature controlled hot blocks. Resulting digests are diluted to 50mL with de-ionized water for the metals by ICP-OES Finish (Code 201-073). 30g of sample is fused using accepted fire assay techniques, cupelled and parted in nitric acid and hydrochloric acid for gold analysis by AA Finish (Code 202-051).

Blanks, sample replicates, duplicates, and internal reference materials (both aqueous and geochemical standards) are routinely used as part of AGAT Laboratories quality assurance program.”

It should be noted that 17 of the 68 samples are off property and the submission for assessment credits to each claim has been reduced proportionately. Assay certificates are presented in Appendix C.

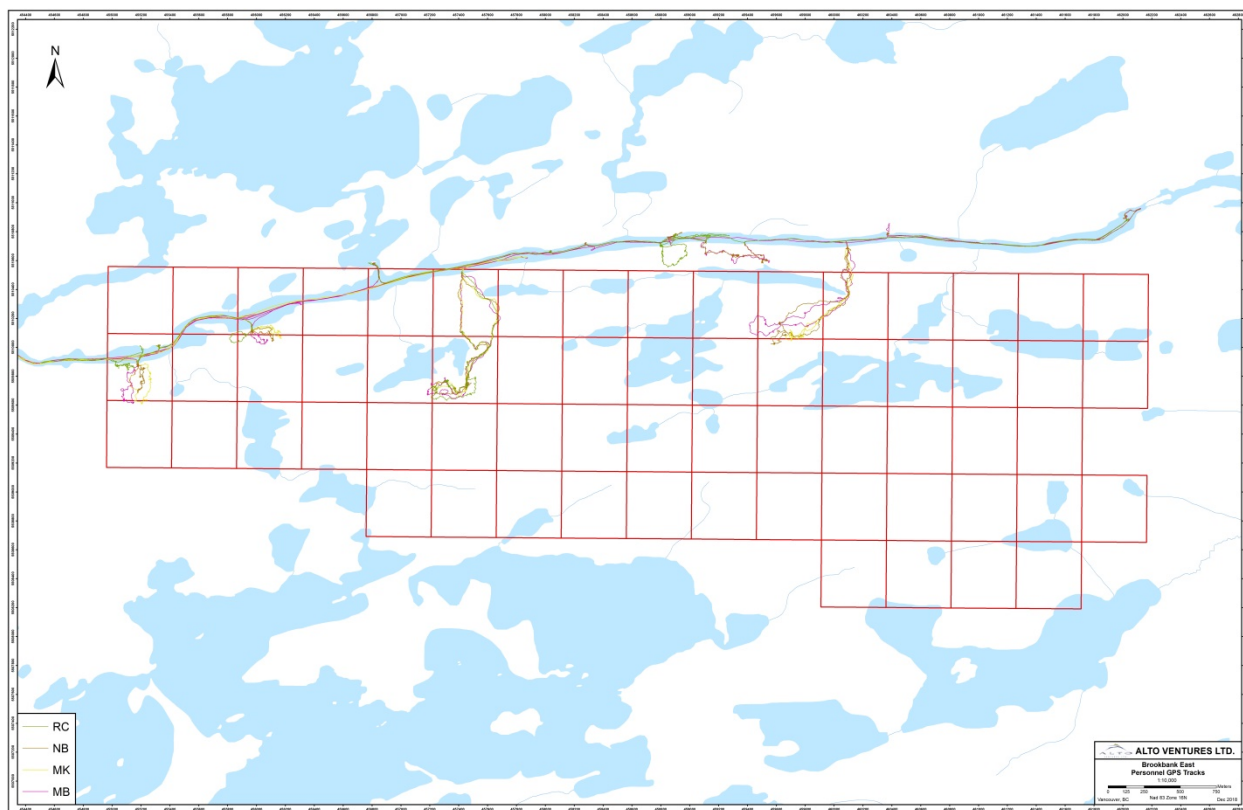


Figure 7 Brookbank East Personnel GPS tracks (prospecting traverse lines)

## 4.2 Results

The main historical trenches at Trench Lake that were stripped and sampled by Goodman in 1991 and later plugger sampled by Leclerc (Kowalski, 1993) were located and grab sampled during Alto's 2018 program. Goodman's West trench is located at UTM coordinates 457313E, 5509769N and exposed an area of approximately 30 m by 15 m, mainly in fine grained metasediments, finely banded to laminated, with the lamina striking at 260°/85°S. A shear zone made up of 5 cm to 15 cm wide shear bands occurs parallel to subparallel to the lamina and some of the shear bands contain up to 20% discontinuous quartz-carbonate veinlets and pods (see Appendix A Photo 1). A number of the historical plugger holes were located on the flat outcrop, including the area of several anomalous samples (see Figure 5) in the northeast corner of the trench. This is where Alto's best gold value in grab sample was from, returning 8.04 g/t Au from a discontinuous quartz-carbonate vein. The vein is composed of 60% quartz, 30% carbonate, 5 to 15% fine disseminated pyrite. It is approximately 15 cm wide and occurs shear-parallel striking at 260°. This vein was blasted before the stripping was carried out. Other grab samples returned weakly anomalous gold, up to 0.197 g/t Au.

The stripped outcrop area is well exposed and flat and should be channel sampled using a diamond saw. It should be noted that the channel sampling reported by Goodman in 1991 is from the East Trench (see Appendix A Photo 2). No evidence of saw-cut channel sampling was found on the West Trench. Glacial striations in the stripped outcrop area trend at 240°.

Goodman's East trench is located at UTM coordinates 457458E, 5509730N (NAD 83) and exposed an area of approximately 50 m by 25 m of mafic volcanic rocks in the southern part and metasedimentary rocks in the northern part. The contact area is sheared with the main shear striking at 250° and dipping at 70°S. The main shear is offset by several smaller shears striking at 280°/90°. The main shear is approximately 15 m wide with pockets mineralized with discontinuous quartz and quartz-carbonate veins and pods. Discontinuous lenses up to 2 cm wide bearing semi-massive fine pyrite occur locally within the shear (see Appendix A Photo 2). Results from grab samples returned only weakly anomalous gold values, the highest being 0.085 g/t Au.

Prospecting northeast of Trench Lake, near the northern contact of the metasedimentary unit has located shearing with localized carbonate alteration and locally minor amounts of quartz stringers. One grab sample, number 106782 returned anomalous gold of 0.52 g/t Au contained is rusted, carbonate altered metaconglomerate containing few narrow stringers of quartz-carbonate veinlets. The rock is strongly foliated with foliation striking at 265°.

Prospecting to the west of Trench Lake located large ridges of mafic metaconglomerate beds and mafic volcanics with intervening valleys that could be related to shear zones (see Appendix A Photos 3 to 6). No significant gold anomalies were obtained from grab samples taken from the western end of the property.

## **5.0 CONCLUSIONS AND RECOMMENDATIONS**

Prospecting was carried out by a four person crew from July 18 to July 21, 2018 on the Brookbank East property to relocate the historical Trench Lake gold occurrence and sample some of the mineralized rocks to confirm historical gold results. Approximately 20 line km were prospected and in total 68 grab rock samples were collected and assayed for gold and analysed for 30 other elements.

The main historical trenches at Trench Lake were located and grab sampled during Alto's 2018 program. Goodman's West trench exposed an area of approximately 30 m by 15 m, mainly in fine grained metasediments, finely banded to laminated, with the lamina striking at 260°/85°S. A shear zone is made up of 5 cm to 15 cm wide shear bands occurs parallel to subparallel to the lamina and some of the shear bands contain up to 20% discontinuous quartz-carbonate veinlets and pods. A number of the historical plugger holes were located on the flat outcrop, including the area of several anomalous samples in the northeast corner of the trench. Alto's best gold value in grab sample was 8.04 g/t Au hosted by a discontinuous quartz-carbonate vein.

Goodman's East trench exposed an area of approximately 50 m by 25 m of mafic volcanic rocks in the southern part and metasedimentary rocks in the northern part. The contact area is sheared with the main shear striking at 250° and dipping at 70°S. The main shear is offset by several smaller shears striking at

280°/90°. The main shear is approximately 15 m wide with pockets mineralized with discontinuous quartz and quartz-carbonate veins and pods. Results from grab samples returned only weakly anomalous gold values, the highest being 0.085 g/t Au.

Prospecting northeast of Trench Lake, near the northern contact of the metasedimentary unit has located shearing with localized carbonate alteration and locally minor amounts of quartz stringers. One grab sample, number 106782 returned anomalous gold of 0.52 g/t Au contained is rusted, carbonate altered metaconglomerate containing few narrow stringers of quartz-carbonate veinlets. The rock is strongly foliated with foliation striking at 265°.

Prospecting to the west of Trench Lake located large ridges of mafic metaconglomerate beds and mafic volcanics with intervening valleys that could be related to shear zones. No significant gold anomalies were obtained from grab samples taken from the western end of the property.

Further prospecting is recommended in the Trench Lake area and the area to the northeast of Trench Lake. The prospecting should focus along the north and south contacts between the metasedimentary unit and the two mafic volcanic units, particularly in the areas close to the base of the ridges where outcrop is near surface but requires some hand stripping.

## **6.0 REFERENCES**

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## 7.0 STATEMENT OF QUALIFICATION

I, Marian (Mike) Koziol, P. Geo., P. Eng., resident at 26 Cognac Court, Sudbury, Ontario, P3E 6L4 do hereby certify that:

1. I am currently employed as President and Director of Alto Ventures Ltd.
2. I graduated from McGill University, Montreal, Quebec with a B.Sc. degree in Geological Sciences in 1978.
3. I am a licensed member of the Professional Engineers of Ontario (No. 100026045) and a licensed member of the Association of Professional Geoscientists of Ontario (No. 1009). I am also a member of the Association of Professional Engineers and Geoscientists of Saskatchewan (No. 05638).
4. I have worked continuously as an exploration geologist since my graduation, exploring for gold and base metals deposits in the Canadian Shield including the Churchill Province of Saskatchewan and Manitoba and the Superior Province of Manitoba, Ontario and Quebec.
5. I have read the definition of “Qualified Person” as set out in National Instrument 43-101 and certify that I fulfill the requirements to be a Qualified Person for the purposes of NI43-101 by reason of my education, relevant past work experience and affiliation with professional association as defined in NI43-101.
6. I have personally worked on the Brookbank Property properties and supervised the work described in this report.
8. As of the date of this certification, I am not aware of any material fact or change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
9. I do not hold a direct interest in the properties but I do own shares of Alto Ventures Ltd and am an Officer and Director of the Company and for the purposes of this report I am not an independent Qualified Person as defined by Section 1.5 of NI43-101.

Original Signed in Sudbury, Ontario on this 15th day of October, 2019



Marian (Mike) Koziol, P. Geo., P. Eng.

APPENDIX A  
PHOTO GALLERY



Photo 1 Trench Lake area, West Trench, shear parallel quartz-carbonate stringers in finely bedded metasediments, results from Alto's 2018 sampling returned 8.0 g/t Au in grab sample of quartz-carbonate veinlets; this is also the area of previous plugger sampling (NTS 457320E, 5509768N)



Photo 2 Trench Lake area, East Trench, previously stripped shear zone with poddy quartz-carbonate veins, historical saw-cut channel samples are from work completed by Goodman in 1991, no significant results were obtained from Alto's 2018 work or from Goodman's work (NTS 457458E, 5509703N)



Photo 3 strongly foliated conglomerate, note the stretched jasperoid pebbles near centre of photo (NTS 459752E, 5510065N)



Photo 4 contact of dark grey diabase dyke with sheared polymictic conglomerate, dyke strikes at  $340^{\circ}$  (NTS 455252E, 5509798N)



Photo 5 polymictic conglomerate, note rounded boulders (NTS 455177E, 550986)



Photo 6 weakly foliated polymictic conglomerate (NTS 455177E, 550986)

APPENDIX B

ROCK SAMPLE LOCATIONS AND DESCRIPTIONS

Marco Bogdanovic Notes July 18 to July 21, 2018

Sample	Property	Date	Sampler	X_N83Z16N	Y_N83Z16N	Sample Source	Sample Type	Lithology	Texture	Alteration	Mineralization	Notes
106763	Brookbank East	July 18, 2018	Marko Bogdanovic	457190	5509678	Outcrop	Grab	Meta Gabbro			fg disseminated cubic py	Fine grained mafic, discreet py grains, minor carbonate in a few fractures, on a large 50X15m oc
106764	Brookbank East	July 19, 2018	Marko Bogdanovic	456015	5510088	Outcrop	Grab	Mafic Volcanic		patchy chl alt	trace cubic py	Intermediate-mafic volc flow with tight laminations, pocket of qtz-carb veining, vuggy and oxidized/rusty
106765	Brookbank East	July 19, 2018	Marko Bogdanovic	456051	5510052	Outcrop	Grab	Mafic Volcanic				Volcanic flow with tight laminations and breaks along those layers, small 1-3mm qtz-carb veins, some rusty surfaces
106766	Brookbank East	July 19, 2018	Marko Bogdanovic	456072	5510050	Outcrop	Grab	Mafic Volcanic			tr py	Often vuggy up to 1cm qtz-carb veins and sometimes rusty with pyrite, part of sample is qtz-carb vein
106767	Brookbank East	July 19, 2018	Marko Bogdanovic	455988	5510063	Outcrop	Grab	Mafic Volcanic				Fine grained mafic, some qtz carb veins and rust on surface
106768	Brookbank East	July 19, 2018	Marko Bogdanovic	455314	5510007	Outcrop	Grab	Mafic Volcanic		perv chl	tr py	Sheared, with 0.5-2mm interlaminated qtz-carb veins, py along few qtz-carb layers, very crenulated with drag folds
106769	Brookbank East	July 19, 2018	Marko Bogdanovic	455107	5509826	Outcrop	Grab	Mafic Volcanic			tr disseminated py	Sheared, possibly meta-sed? Some rusty surfaces, few sections with minor qtz-carb, fol strike 80 deg
106770	Brookbank East	July 19, 2018	Marko Bogdanovic	455128	5509739	Outcrop	Grab	Metaconglomerate				Polymictic, matrix supported with rounded and elongate granitoid clasts, mafic matrix, quartz-eyes in some clasts, some vuggy qtz-carb veins sometimes rusty
106771	Brookbank East	July 19, 2018	Marko Bogdanovic	455081	5509631	Outcrop	Grab	Mafic Volcanic		chl, w ep		Schisty, few qtz-carb lined surfaces/veins, interm-mafic, some w shearing



106772	Brookbank East	July 19, 2018	Marko Bogdanovic	455147	5509620	Outcrop	Grab	Mafic Volcanic		0.5% fg dissement	py	With minor qtz-carb veins, some rusty fractures
106773	Brookbank East	July 20, 2018	Marko Bogdanovic	462026	5510910	Outcrop	Grab	Mafic Volcanic		tr dissement	py	At edge of shear zone, sample part qtz vein part mafic volcanic. Sections with qtz-carb veins up to 10cm wide, shear and veins striking 90 deg. Minor rusty fractures with ankerite? Quartz is milky white and coarse grained.
106774	Brookbank East	July 20, 2018	Marko Bogdanovic	459505	5510615	Outcrop	Grab	Mafic Volcanic	w sheared			Weakly sheared with fine laminations/layers. Minor iron carbonate stringers.
106775	Brookbank East	July 20, 2018	Marko Bogdanovic	459537	5510605	Outcrop	Grab	Mafic Volcanic	w sheared	tr dissement	py	Weakly sheared with fine laminations/layers. Minor rusty surfaces, adjacent to porphyry, more common carbonate veinlets.
106776	Brookbank East	July 20, 2018	Marko Bogdanovic	459223	5510666	Outcrop	Grab	Mafic Volcanic	w sheared	tr dissement	py	Aphanitic, some rusty fractures.
106777	Brookbank East	July 20, 2018	Marko Bogdanovic	458849	5510762	Outcrop	Grab	Schist	w sheared	1% dissement	py	Tightly foliated with sericite. Fissile, rusty between layers, some quartz-carb veinlets usually between layers. 90 deg strike of shear.
106778	Brookbank East	July 20, 2018	Marko Bogdanovic	458039	5510661	Outcrop	Grab	Mafic Volcanic	sheared	chl, w ep		Tight shear, some surface rust, minor quartz/carb veins and rust.
106779	Brookbank East	July 21, 2018	Marko Bogdanovic	459526	5510163	Outcrop	Grab	Mafic Volcanic				Very fissile, common <1mm qtz-carb veinlets along layers, minor rust on exposed surfaces only
106780	Brookbank East								Standard			
106781	Brookbank East	July 21, 2018	Marko Bogdanovic	459526	5510193	Outcrop	Grab	Mafic Volcanic	w-m sheared			More mafic than 778-779, some slickensides, common carb between layers, 260 deg strike of shearing

106782	Brookbank East	July 21, 2018	Marko Bogdanovic	459553	5510097	Outcrop	Grab	Metacong fol lomerate			Mafic matrix, w rust on surface, 85 deg strike of fol, minor qtz-carb veinlets
106783	Brookbank East	July 21, 2018	Marko Bogdanovic	459812	5510147	Outcrop	Grab	Mafic Volcanic	0.5%	dissem py along fol	Aphanitic and moderately brecciated by frequent epidote veins up to 1cm and often cross-cutting flow fabric. Also cross-cut by more minor qtz-carb veining. Flow fabric strike of 86 deg.
106784	Brookbank East	July 21, 2018	Marko Bogdanovic	460083	5510456	Outcrop	Grab	Mafic Volcanic	m sheared	1%	Rust on fractures, qtz-carb veins, dissem py small 1x1m exposure of o/c

Mike Koziol Field Notes July 18 to July 21 2018

18-Jul Marko, Rick, Nikolay, Mike Brookbank East, Trench lake, main showings area, two large stripped areas opened by Darren Goodman in 1990's, Eastern trench was saw-cut channel sampled, western trench was historically blasted and then stripped, plugger holes were located in western trench

Station #	Easting	Northing	Lithology	Description
J36	457543	5509934	conglomerate	photos, strongly foliated, strikes 260°/75S, green chloritized matrix, felsic clasts, including red jasperoid, matix supported, clasts elongated 10:1, o/c ridge on cliff edge facing creek/swamp, photos 0671-0674
J37	457505	5509931	conglomerate	similar to J36
J38	457490	5509920	conglomerate	conglomerate, corse pebbles, elongated, o/c exposes approximately 2m of conglomerate, photos 0675-676
J39	457455	5509804	conglomerate	foliated, strikes 250°/N
J40	457458	5509730	East Trench	large area stripped and channel sampled, this coordinate is southern most end, photos 0677 to 688
J40a	454454	5509743	Main Shear	shear is approximately 15m wide with pockets mineralized with discontinuous qtz and qtz-cb veins and pods, locally within shear find discontinuous lenses up to 2 cm wide bearing semi-massive fine py, shear strikes at 250°/70S, offset by 100°/90 smaller shears, photos
J41	457313	5509769	West Trnch	plugger holes, glacial striations 240°, o/c is of finely banded/laminated rock, probably fine metasediments, some lamina are silicified, cb alteration overprints some of the lamina, several parallel shear zones 5 to 15cm wide occur parallel to sub parallel to lamination, strike of beds/lamina 260°/85S, o/c contains 20% qtz-cb veining, good candidate for channel sampling
	457327	5509771	168622	qtz-cb vein from 260° shear, contained 60% white qtz, 30% cb, 5% fine bands of diss py, should run Au
	457320	5509770	168623	sulphide bearing seds, finely laminated with some lamina silicified and containing 5 to 15% fine diss py, should run Au
	457320	5509766	168624	qtz-cb vein, massive heavy vein, vein is 20 cm, old saw cut channel sample off edge of trench

J42	457320	5509768	old blasted trench	photos of narrow qtz-cb mineralized shear zones, 0689-690
J43	457220	5509716	mafic volcanic	once massive, now foliated rock, foliation 250°/80S, light green, chloritic
J44	457253	5509710	mafic volcanic	
J45	457333	5509730	drill site	possible Founder Res drill site
J46	457379	5509717	shear zone/seds	large o/c cliff ridge facing creek to east, shearing/foliation at 250°/70S, cb altered, silicified, epidote, black lamina of amphibole (chert?)
	457379	5509717	106962	cb altered, silicified, epidote, black lamina of amphibole (chert?), sulphides hard to find
	457379	5509715	106963	magnetite bearing, finely laminated meta-sediment (sheared mafic?), rock still has epidote pockets
J47	457373	5509712	shear zone/seds	back-side of J46 o/c
	457373	5509712	106964	narrow (5cm wide) qtz-cb veins in heavy, laminated metasediment, rock contains 15 fine, randomly diss py
19-Jul Marko, Rick, Nikolay, Mike Brookbank East, talked with cabin owner Toki about our prospecting in the area				
J48	456099	5510156	sericite schist	on shoreline, sericite-cb schist, onlt trace py, strikes 250°
J49	456109	5510131	mafic volcanic	massive, grey-green, foliated, barren of sulphides
J50	456110	5510134	mafic volcanic	massive
J51	456127	5510113	mafic volcanic	massive
J52	456155	5510110	mafic volcanic	sheared, silicified, shear striking 254°/80S, grey green, fine grained, pervasive sericitization, minor calcite
	456155	5510110	106965	sheared, silicified, shear striking 254°/80S, grey green, fine grained, pervasive sericitization, minor calcite
J53	456171	5510077	mafic volcanic	large o/c, foliated at 250°/75S, last o/c ridge before swamp to the south

J54	456110	5510122	mafic volcanic	massive
	455327	5511012	168629	Kingston Island point, sericite-cb-chlorite schist, crenulation folding, contains locally up to 5% fine diss py along shear bands
J55	455232	5509889	mafic volcanic	large o/c
J56	455245	5509861	conglomerate	heterolithic clasts including felsic intrusive; exposure within 5m of mafic volcanic contact, foliation strike 240°, cobbles stretched 10:1 closer to contact and 4:1 further to the south, photos 0691, 0692*, 0693* and 0694
J57	455258	5509817	dyke	fine grained, mafic, massive, weakly magnetic, jointed at 360°/60W
J58	455263	5509806	sericite schist	shear zone in conglomerate striking 250° truncated by 160° striking mafic dyke, photos
J59	455253	5509798	conglomerate	pebbles stretched and partially folded along foliation, photos 0695-701
J60	455264	5509756	conglomerate	along E facing, N-S which is probably a fault, clasts in cross section stretched 20:1
J61	455253	5509693	conglomerate	
J62	455239	5509667	metasediment	dark grey, finely laminated, strikes 270°/80S, alternating bands of lighter and darker material
J63	455216	5509643	gabbro	massive, fine crystalline amphibole rich, photos 0704, 705
J64	455244	5509635	mafic volcanic	same o/c ridge as J63, fine grained, possible fragmental, photos 0706, 0707
J65	455204	5509635	mafic volcanic	along same large o/c ridge, N-S cut line possible grid or claim line
J66	455157	5509635	mafic volcanic	massive fine grained flow or fine grained gabbro

J67 455177 5509686 conglomerate locally with boulders, foliated but clasts are still round, Nikolay's sample 188407 (455176E, 5509689N), photos 0708\*, 709, 710\*, 711

20-Jul Marko, Rick. Nikolay Brookbank East, Mike prospect/geology north on river

21-Jul Marko, Rick, Nikolay, Mike Brookbank East, trenches north of Contact Lake-trenches found but no rock

J68 460102 5510581 mafic volcanic massive, fine grained, cliff facing N, minor slickenslides on chloritized surfaces

J69 460095 5510560 mafic volcanic foliated at 260°

J70 459874 5510165 mafic volcanic flat o/c in o/b covered area, massive, fine grained

J71 459795 5510131 mafic volcanic massive, small o/c on edge of swamp

J72 459705 5510088 trench old trench, hand-dug 5m long, 1m wide 0.6m deep on sandy flat area, no bedrock exposed and no rock in trench area, trench trends 360°

J73 line post 400m E of #4 post 1173872; 400m W of #2 post 11737871

J74 459711 5510090 trench south end of trench, sand/ob filled, no bedrock in trench or around trench

J75 459711 5510105 trench north end of trench

J76 trench south end of trench, sand/ob filled, no bedrock in trench or around trench

J77 459732 5510065 trench north end of trench

J78 459776 5510080 conglomerate low-relief o/c near swamp edge, o/c is foliated

459776 5510080 106966 conglomerated includes pieces of matrix and clasts, matrix chloritized, weak cb, contains few microveinlets of qtz with fine diss py

J79 459752 5510065 conglomerate sheared, trending 090°, matrix is chlorite-sericite-minor cb altered, clasts include felsic intrusive, jasper and chert, photos 0716, 717

	459752	5510065	106967	conglomerate, mainly matrix material consisting of chlorite-sericite-carbonate schist
J80	459789	5510070	conglomerate	foliated matrix but cobbles are still rounded

Note: Highlighted number identifies bedrock sample number

Nikolay Bashaev Sample Locations and Descriptions

Station #	X	Y	Sample#	Sample Log	Station Notes
NB 1	457486	5509918			On edge of outcrop. Sheared with Az of 250 degrees. historical trench, several old chanell cuts, sheared with AZ of 250 degrees and width 10-12 m, uneven distrebution of quartz strings and veinlets
NB 2	457453	5509744	A188401	mafic volcanic, greyish-greenish, contains inclusions of white and yellowish qtz, weak FeC alteration, 1% of vfg Py qtz, sample was taken from the shear zone, white to yellowish, presence od sugary qtz, moderate FeC alteration, nvs	
NB 3	457462	5509750	A188402	metasediments, dark grey, looks aphanitic, moderate FeC alteration, nvs	same as above historical trench, presence of drilling, metasediments, bedded with bedding at Az of 250 degrees, presence of FeC staining
NB 4	457313	5509758	A188403		outcrop, composed of mafic rock, no shearing, nvs
NB 5	456038	5510100			on a top of outcrop, mafic, area extensively covered by trees
NB 6	456116	5510083			edge of mafic outcrop, no shearing, nvs
NB 7	455969	5510105		sheared mafic, greyish-greenish, aphanitic, altered with FeC, nvs	kingston island, shear zone on a river bank, host rock is likely mafic volcanic
NB 8	455383	5510010	A188404	conglomerate, host rock is sheared mafic, green, looks aphanitic, very weak FeC alteration, clasts are bleached white, felsic? origin, nvs	outcrop, predominance of conglomerate, host rock is sheared mafic, Az is 260 degrees, clasts are white bleached and alongated with direction of flow, size vary 5-20 cm
NB 9	455220	5509856	A188405		



			chlorite schist, greyish to greenish, brittle, very weak FeC alteration, nvs	ridge, goes in W-E direction, elevated approx 8-10 m above ground, extensively grown with vegetation, composed of chlorite schist
NB 10	455193	5509802 A188406		outcrop, exposed area at least 200 sq m, composed both of conglomerate and mafic volcanic; conglomerate is sheared mafic and with rounded clasts, Az is 280 degrees, size of clasts vary 5-50 cm, clasts are white bleached and likely of felsic origin; mafic volcanic is green, aphanitic to vfg, nvs observed
NB 11	455188	5509711	sample was taken from well exposed area due to fallen tree, conglomerate, host rock is mafic sheared, green, aphanitic, weak FeC alteration, clasts are white bleached, nvs	conglomerate; as above
NB 12	455176	5509689 A188407	mafic volcanic, green, vfg to	small outcrop on northern side of river
NB 13	460375	5510784 A188408	aphanitic, looks massive, nvs sheared mafic, green, aphanitic, trace of qtz, nvs	snake island, small island close to rapids, sheared mafic, Az 280 degrees, sporadic occurrence of qtz
NB 14	462006	5510892 A188409		outcrop, close to long pond, sheared mafic with width 5-7m, Az 275 degrees
NB 15	459502	5510584	porphyry, grey vfg groundmass, subrounded clasts, some qtz, trace of vfg py	porphyry outcrop
NB 16	459533	5510602 A188410		outcrop, composed of mafic rock, no shearing, nvs
NB 17	459299	5510640		

NB 18	459329	5510604		outcrop, composed of mafic rock, no shearing, nvs
NB 19	459106	5510655	A188411	metadiorite, grey, vfg, visible fg plag, trace of qtz, nvs  outcrop, metadiorite  exposure of rock on a north side of river, thickness 2-3 m, extends for 25-30 m, composed of mafic volcanic with presence of qtz and vfg py, some narrow parts with width 70-80 cm show weak shearing with Az 270 degrees
NB 20	458892	5510778		qtz, whitish to yellowish, weak to mod FeC alteration, nvs  qtz veinlets exposed on surface, host rock is mafic volcanic, unsheared, thickness of veinlets 15- 20 cm, Az 260 degrees, dips south at 35 degrees
NB 21	458281	5510719	A188412	chlorite schist, green, strong shearing, very weak FeC alteration, nvs outcrop, small island on a river composed of chlorite schist
NB 22	456804	5510576	A188413	mafic volcanic, green, aphanitic, trace qtz, weak to moderate FeC alteration, nvs historical trench, width about 2.5-3 m, length 8-10 m, depth 1.2-1.5 m, Az 355 degrees, composed of mafic volcanic
NB 23	459617	5510169	A188414	mafic volcanic, aphanitic to vfg, weak FeC alteration, some qtz, nvs outcrop extensively covered by vegetation, composed of mafic volcanic
NB 24	459896	5510189	A188415	

Richard Cote Notes July 18 to July 21

Sample #		Easting	Northing	Lithology	Structurs	Alteration	Mineralization	Description
168622	Brookbank East	Rick Cote	457327	5509771				qtz-cb vein from 260° shear, contained 60% white qtz, 30% cb, 5% fine bands of diss py, should run Au
168623	Brookbank East	Rick Cote	457320	5509770				sulphide bearing seds, finely laminated with some lamina silicified and containing 5 to 15% fine diss py, should run Au
168624	Brookbank East	Rick Cote	457320	5509766				qtz-cb vein, massive heavy vein, vein is 20 cm, old saw cut channel sample off edge of trench
168625					Standard			
168626		Rick Cote	455959	5510127		chlorite schist s fol	chlorite, carb nvs	
168627		Rick Cote	455945	5510125		mafic volcanic m fol	chlorite, carb nvs	3% qtz
168628		Rick Cote	455925	5510075		intermediate massive	w carb trace diss py	5% qtz
168629	Brookbank East	Rick Cote	455327	5510012		mafic volcanic s fol	carb, chlorite trace diss py	Kingston Island point, sericite-cb-chlorite schist, crenulation folding, contains locally up to 5% fine diss py along shear bands
168630		Rick Cote	455195	5510011		mafic volcanic m fol	chlorite 1-2% diss py	7% qtz
168631		Rick Cote	455045	5509860		chert massive	w carb nvs	2% qtz
168632		Rick Cote	455065	5509874		mafic volcanic m fol	carb 1% diss py	30% qtz
168633		Rick Cote	455116	5509885		mafic volcanic m fol	chlorite, carb 2-3% vfg-fg py	2% qtz
168634		Rick Cote	455116	5509885		mafic volcanic massive	w carb 1% of diss py	10% qtz
168635		Rick Cote	458797	5510710		mafic volcanic w fol	carb, chlorite nvs	
168636		Rick Cote	458808	5510644		mafic volcanic m fol	carb, chlorite nvs	2% qtz

168637	Rick Cote	458936	5510614	mafic volcanic	m fol	carb, chlorite	1% diss py	3% qtz
168638	Rick Cote	458888	5510780	intermediate	w fol	w carb	0.5% diss py	2% qtz
168639	Rick Cote	458899	5510774	mafic volcanic	m fol	m carb	1% diss py	
168640	Rick Cote	459994	5510514	mafic volcanic	w fol	carb, chlorite	1% diss py	
168641	Rick Cote	459909	5510489	qtz	massive	carb, potassium	1% vfg py, 1% fg cpy	
168642	Rick Cote	459907	5510488	mafic volcanic	s fol	s carb, hematite	trace diss py	
168643	Rick Cote	459901	5510480	mafic volcanic	m fol	carb, chlorite	nvs	2% qtz
168644	Rick Cote	457455	5509753	mafic volcanic	w fol	carb, chlorite	1-2% diss py	
168645	Rick Cote	451173	5513345	mafic volcanic	m fol	carb, chlorite	nvs	
168646	Rick Cote	451248	5513458	mafic volcanic	s fol	carb, chlorite	nvs	
168647	Rick Cote	451263	5513389	mafic volcanic	massive	w chlorite	nvs	
168648	Rick Cote	447642	5509612	intermediate	massive	carb	1% cpy	7% qtz
168649	Rick Cote	447642	5509612	mafic volcanic	m fol	carb, chlorite	nvs	5% qtz
168650				Standard				

APPENDIX C

ASSAY CERTIFICATES



CLIENT NAME: ALTO VENTURES LTD  
615-800 WEST PENDER ST.  
VANCOUVER, BC V6C 2V6  
604-689-2599

ATTENTION TO: MIKE KOZIOL

PROJECT:

AGAT WORK ORDER: 18B367066

SOLID ANALYSIS REVIEWED BY: Adel Mina, Mining Chief Chemist

DATE REPORTED: Aug 29, 2018

PAGES (INCLUDING COVER): 26

Should you require any information regarding this analysis please contact your client services representative at (905) 501-9998

\*NOTES

All samples are stored at no charge for 90 days. Please contact the lab if you require additional sample storage time.



## Certificate of Analysis

AGAT WORK ORDER: 18B367066

PROJECT:

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
TEL (905)501-9998  
FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

### (200-) Sample Login Weight

DATE SAMPLED: Jul 26, 2018

DATE RECEIVED: Jul 26, 2018

DATE REPORTED: Aug 29, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte: Unit: RDL:	Sample Login Weight kg 0.01
106763 (9429199)		0.772
106764 (9429200)		0.570
106765 (9429201)		0.88
106766 (9429202)		1.560
106767 (9429203)		2.220
106768 (9429204)		1.562
106769 (9429205)		1.056
106770 (9429206)		0.844
106771 (9429207)		1.678
106772 (9429208)		1.042
106773 (9429209)		1.054
106774 (9429210)		1.148
106775 (9429211)		1.292
106776 (9429212)		1.316
106777 (9429213)		1.316
106778 (9429214)		0.720
106779 (9429215)		1.254
106780 (9429216)		0.092
106781 (9429217)		0.928
106782 (9429218)		0.952
106783 (9429219)		1.586
106784 (9429220)		1.538
106962 (9429221)		0.936
106963 (9429222)		0.960
106964 (9429223)		1.244
106965 (9429224)		1.422
106966 (9429225)		0.950
106967 (9429226)		0.734
168618 (9429227)		1.150
168619 (9429228)		0.536
168620 (9429229)		0.990

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 18B367066

PROJECT:

5623 McADAM ROAD  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1N9  
 TEL (905)501-9998  
 FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

### (200-) Sample Login Weight

DATE SAMPLED: Jul 26, 2018

DATE RECEIVED: Jul 26, 2018

DATE REPORTED: Aug 29, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte: Unit: RDL:	Sample Login Weight kg 0.01
168621 (9429230)		0.508
168622 (9429231)		1.722
168623 (9429232)		1.204
168624 (9429233)		2.062
168625 (9429234)		0.092
168626 (9429235)		0.838
168627 (9429236)		1.156
168628 (9429237)		1.644
168629 (9429238)		1.164
168630 (9429239)		1.372
168631 (9429240)		2.662
168632 (9429241)		1.900
168633 (9429242)		1.816
168634 (9429243)		2.018
168635 (9429244)		1.152
168636 (9429245)		1.444
168637 (9429246)		0.766
168638 (9429247)		2.166
168639 (9429248)		1.034
168640 (9429249)		1.038
168641 (9429250)		1.066
168642 (9429251)		0.598
168643 (9429252)		0.824
168644 (9429253)		0.870
188401 (9429254)		1.964
188402 (9429255)		0.658
188403 (9429256)		1.170
188404 (9429257)		0.964
188405 (9429258)		0.876
188406 (9429259)		0.920
188407 (9429260)		0.636

Certified By:





## Certificate of Analysis

AGAT WORK ORDER: 18B367066

PROJECT:

5623 McADAM ROAD  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1N9  
 TEL (905)501-9998  
 FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

### (200-) Sample Login Weight

DATE SAMPLED: Jul 26, 2018

DATE RECEIVED: Jul 26, 2018

DATE REPORTED: Aug 29, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte:	Sample Login Weight
	Unit:	kg
	RDL:	0.01
188408 (9429261)		1.304
188409 (9429262)		1.696
188410 (9429263)		1.254
188411 (9429264)		1.106
188412 (9429265)		0.682
188413 (9429266)		0.818
188414 (9429267)		1.198
188415 (9429268)		0.732

Comments: RDL - Reported Detection Limit  
 Possible contamination on sample 9429245-168636

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 18B367066

PROJECT:

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MISSISSAUGA, ONTARIO  
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CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

### (201-073) Aqua Regia Digest - Metals Package, ICP-OES finish

DATE SAMPLED: Jul 26, 2018

DATE RECEIVED: Jul 26, 2018

DATE REPORTED: Aug 29, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte: Unit: RDL:	Ag ppm 0.2	Al % 0.01	As ppm 1	B ppm 5	Ba ppm 1	Be ppm 0.5	Bi ppm 1	Ca % 0.01	Cd ppm 0.5	Ce ppm 1	Co ppm 0.5	Cr ppm 0.5	Cu ppm 0.5	Fe % 0.01
106763 (9429199)		<0.2	2.67	16	70	52	<0.5	<1	0.93	<0.5	4	35.2	15.4	169	6.28
106764 (9429200)		<0.2	2.68	<1	59	48	<0.5	<1	0.66	<0.5	4	45.3	59.5	15.6	5.24
106765 (9429201)		<0.2	3.29	<1	74	61	<0.5	<1	3.45	<0.5	5	41.3	44.5	73.1	7.01
106766 (9429202)		<0.2	2.89	<1	58	49	<0.5	<1	2.57	<0.5	9	42.6	63.7	42.5	5.41
106767 (9429203)		<0.2	2.80	<1	64	68	<0.5	<1	0.43	<0.5	4	36.5	54.4	25.9	5.72
106768 (9429204)		<0.2	2.34	2	40	88	<0.5	<1	2.41	<0.5	35	25.5	232	22.2	3.80
106769 (9429205)		<0.2	1.97	<1	36	52	<0.5	<1	2.54	<0.5	22	13.0	33.5	15.1	3.47
106770 (9429206)		<0.2	2.25	<1	42	86	<0.5	<1	2.42	<0.5	17	18.3	85.5	37.9	3.87
106771 (9429207)		<0.2	3.12	2	52	36	<0.5	<1	1.20	<0.5	2	38.2	141	88.2	4.96
106772 (9429208)		<0.2	2.72	6	47	31	<0.5	<1	0.67	<0.5	2	34.1	112	75.8	4.02
106773 (9429209)		<0.2	2.31	2	46	51	<0.5	<1	0.66	<0.5	2	28.6	78.4	76.5	4.35
106774 (9429210)		<0.2	3.49	<1	104	82	<0.5	<1	1.04	<0.5	3	40.3	45.3	80.9	9.01
106775 (9429211)		<0.2	2.88	<1	93	45	<0.5	<1	3.81	<0.5	1	50.3	198	152	6.60
106776 (9429212)		<0.2	2.20	<1	48	32	<0.5	2	0.51	<0.5	3	26.7	158	130	4.45
106777 (9429213)		0.3	2.99	23	65	57	<0.5	<1	1.00	<0.5	17	33.9	58.6	48.8	6.00
106778 (9429214)		<0.2	1.48	3	35	28	<0.5	<1	1.20	<0.5	4	27.8	75.3	20.2	3.23
106779 (9429215)		<0.2	2.63	11	70	52	<0.5	<1	5.16	<0.5	7	40.8	44.7	80.1	6.47
106780 (9429216)		<0.2	1.06	51	32	125	<0.5	<1	1.24	<0.5	10	6.9	24.7	47.4	2.70
106781 (9429217)		0.2	2.36	9	51	73	<0.5	<1	1.43	<0.5	37	23.3	49.3	27.9	4.80
106782 (9429218)		<0.2	1.72	5	36	31	<0.5	<1	1.59	<0.5	4	24.3	51.7	52.7	3.10
106783 (9429219)		<0.2	2.33	<1	47	37	<0.5	<1	0.71	<0.5	3	29.9	151	100	4.51
106784 (9429220)		<0.2	1.16	<1	25	33	<0.5	<1	1.35	<0.5	2	10.3	80.4	<0.5	2.32
106962 (9429221)		<0.2	0.82	<1	26	30	<0.5	<1	1.56	<0.5	<1	9.3	64.5	<0.5	2.05
106963 (9429222)		<0.2	1.62	3	55	39	<0.5	<1	0.81	<0.5	1	41.8	20.3	<0.5	3.97
106964 (9429223)		<0.2	2.99	15	109	58	<0.5	<1	0.40	<0.5	1	54.9	29.1	132	7.98
106965 (9429224)		<0.2	1.66	5	52	34	<0.5	<1	2.97	<0.5	3	30.9	37.6	72.5	3.85
106966 (9429225)		<0.2	1.70	<1	42	34	<0.5	<1	1.12	<0.5	19	13.6	35.4	7.2	3.20
106967 (9429226)		<0.2	2.02	<1	50	77	<0.5	<1	2.00	<0.5	19	22.2	28.5	40.9	4.68
168618 (9429227)		0.8	3.22	91	92	57	<0.5	5	2.55	3.6	3	61.2	20.1	155	8.56
168619 (9429228)		<0.2	3.96	114	110	86	<0.5	<1	3.34	4.9	17	48.2	52.5	363	9.84
168620 (9429229)		<0.2	0.56	10	145	87	<0.5	7	0.96	<0.5	4	14.0	15.4	99.2	13.2
168621 (9429230)		<0.2	3.88	<1	112	83	<0.5	4	3.91	<0.5	3	45.6	15.1	104	10.4

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 18B367066

PROJECT:

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
TEL (905)501-9998  
FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

### (201-073) Aqua Regia Digest - Metals Package, ICP-OES finish

DATE SAMPLED: Jul 26, 2018

DATE RECEIVED: Jul 26, 2018

DATE REPORTED: Aug 29, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte: Unit: RDL:	Ag ppm 0.2	Al % 0.01	As ppm 1	B ppm 5	Ba ppm 1	Be ppm 0.5	Bi ppm 1	Ca % 0.01	Cd ppm 0.5	Ce ppm 1	Co ppm 0.5	Cr ppm 0.5	Cu ppm 0.5	Fe % 0.01
168622 (9429231)		1.1	1.13	145	84	81	<0.5	<1	5.07	<0.5	10	32.5	21.1	65.7	7.69
168623 (9429232)		<0.2	2.71	6	107	68	<0.5	1	4.87	<0.5	13	40.6	13.7	101	9.91
168624 (9429233)		<0.2	0.44	29	50	41	<0.5	<1	3.94	<0.5	7	13.9	33.0	18.2	4.26
168625 (9429234)		<0.2	1.04	51	31	124	<0.5	<1	1.22	<0.5	10	6.8	24.6	46.4	2.71
168626 (9429235)		<0.2	1.66	2	36	77	<0.5	<1	3.43	<0.5	31	22.2	142	15.1	3.32
168627 (9429236)		<0.2	0.27	<1	49	348	<0.5	<1	8.85	<0.5	17	12.7	36.9	21.3	3.24
168628 (9429237)		<0.2	2.51	<1	51	46	<0.5	<1	3.39	<0.5	6	32.1	44.8	97.9	4.78
168629 (9429238)		<0.2	1.63	1	36	60	<0.5	<1	3.58	<0.5	32	23.2	154	167	3.41
168630 (9429239)		<0.2	0.20	184	56	65	<0.5	<1	2.88	<0.5	21	16.5	16.6	51.6	5.19
168631 (9429240)		<0.2	0.45	10	77	53	<0.5	4	13.9	<0.5	1	27.2	11.9	33.2	7.20
168632 (9429241)		<0.2	0.83	54	39	34	<0.5	<1	4.78	<0.5	2	22.9	32.9	0.7	3.60
168633 (9429242)		<0.2	2.06	712	87	70	<0.5	<1	4.95	<0.5	5	42.9	39.7	136	7.72
168634 (9429243)		<0.2	0.79	4410	75	55	<0.5	3	6.54	<0.5	3	36.3	19.7	229	6.98
168635 (9429244)		<0.2	2.09	20	47	38	<0.5	<1	3.11	<0.5	1	34.3	167	128	4.54
168636 (9429245)		<0.2	5.55	15	78	172	<0.5	<1	6.29	<0.5	6	81.3	134	112	7.20
168637 (9429246)		<0.2	2.17	<1	43	34	<0.5	<1	0.74	<0.5	2	29.4	145	128	3.92
168638 (9429247)		<0.2	1.26	72	35	36	<0.5	<1	6.44	<0.5	9	16.5	24.8	48.9	3.00
168639 (9429248)		<0.2	2.62	5	93	65	<0.5	3	2.68	<0.5	17	25.4	70.2	200	8.32
168640 (9429249)		<0.2	2.37	<1	50	35	<0.5	<1	0.59	<0.5	2	31.4	149	110	4.81
168641 (9429250)		<0.2	0.58	<1	38	20	<0.5	<1	5.90	<0.5	<1	4.3	21.6	177	1.43
168642 (9429251)		<0.2	2.21	<1	61	47	<0.5	<1	0.52	<0.5	22	15.5	33.8	348	5.74
168643 (9429252)		<0.2	2.86	<1	85	49	<0.5	<1	2.70	<0.5	3	38.3	88.1	104	6.86
168644 (9429253)		0.9	4.84	97	146	88	<0.5	2	1.78	18.2	8	60.1	55.1	436	13.1
188401 (9429254)		0.2	1.96	59	83	51	<0.5	<1	1.99	<0.5	7	49.8	23.5	449	6.14
188402 (9429255)		<0.2	1.55	20	52	38	<0.5	1	3.99	<0.5	2	17.7	15.5	5.3	4.82
188403 (9429256)		<0.2	2.66	33	94	89	<0.5	4	1.97	<0.5	23	41.1	<0.5	54.1	8.91
188404 (9429257)		<0.2	1.37	3	37	79	<0.5	<1	2.90	<0.5	59	19.3	61.1	32.5	3.57
188405 (9429258)		<0.2	2.30	4	47	62	<0.5	<1	0.53	<0.5	13	19.6	57.5	21.0	4.39
188406 (9429259)		<0.2	2.64	<1	59	95	<0.5	<1	0.53	<0.5	22	28.3	90.0	51.9	5.63
188407 (9429260)		<0.2	2.32	7	47	62	<0.5	<1	0.65	<0.5	17	19.4	111	20.6	4.27
188408 (9429261)		<0.2	3.36	4	63	44	<0.5	<1	0.86	<0.5	3	38.8	107	89.8	5.88
188409 (9429262)		<0.2	4.30	5	90	65	<0.5	<1	1.99	<0.5	2	45.6	143	113	8.22

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 18B367066

PROJECT:

5623 McADAM ROAD  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1N9  
 TEL (905)501-9998  
 FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

(201-073) Aqua Regia Digest - Metals Package, ICP-OES finish

DATE SAMPLED: Jul 26, 2018

DATE RECEIVED: Jul 26, 2018

DATE REPORTED: Aug 29, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte: Unit: RDL:	Ag ppm 0.2	Al % 0.01	As ppm 1	B ppm 5	Ba ppm 1	Be ppm 0.5	Bi ppm 1	Ca % 0.01	Cd ppm 0.5	Ce ppm 1	Co ppm 0.5	Cr ppm 0.5	Cu ppm 0.5	Fe % 0.01
188410 (9429263)		<0.2	0.47	986	47	46	<0.5	<1	6.70	<0.5	2	21.3	25.4	2.8	4.43
188411 (9429264)		<0.2	2.87	25	59	45	<0.5	<1	3.41	<0.5	4	32.3	247	79.6	5.39
188412 (9429265)		<0.2	0.50	2	17	11	<0.5	<1	0.22	<0.5	<1	4.6	65.3	8.4	1.33
188413 (9429266)		<0.2	4.79	2	64	99	<0.5	<1	0.50	<0.5	24	34.4	249	17.7	5.99
188414 (9429267)		<0.2	3.34	2	65	40	<0.5	<1	3.89	<0.5	7	37.7	74.3	71.7	5.93
188415 (9429268)		0.2	1.81	<1	34	59	<0.5	<1	0.50	<0.5	8	22.8	533	12.7	3.06

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 18B367066

PROJECT:

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MISSISSAUGA, ONTARIO  
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CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

### (201-073) Aqua Regia Digest - Metals Package, ICP-OES finish

DATE SAMPLED: Jul 26, 2018

DATE RECEIVED: Jul 26, 2018

DATE REPORTED: Aug 29, 2018

SAMPLE TYPE: Rock

Analyte:	Ga	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Rb
Unit:	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm
RDL:	5	1	1	0.01	1	1	0.01	1	0.5	0.01	0.5	10	0.5	10
106763 (9429199)	31	<1	<1	0.03	3	21	2.35	971	3.1	0.03	24.1	313	5.7	<10
106764 (9429200)	25	<1	<1	0.04	3	21	1.91	1510	1.7	0.03	59.9	244	5.5	<10
106765 (9429201)	24	<1	<1	0.02	2	19	2.07	2190	3.3	0.03	55.5	246	3.9	<10
106766 (9429202)	28	<1	<1	0.02	5	24	2.40	1590	1.7	0.05	58.3	307	3.9	<10
106767 (9429203)	32	<1	<1	0.03	2	36	2.52	679	3.4	0.06	50.9	270	2.7	<10
106768 (9429204)	28	<1	<1	0.11	18	41	3.05	477	1.9	0.03	141	624	<0.5	<10
106769 (9429205)	20	<1	<1	0.08	12	30	1.24	916	2.1	0.04	24.9	364	2.7	<10
106770 (9429206)	22	<1	<1	0.19	9	24	1.41	1170	4.4	0.04	48.4	448	1.5	<10
106771 (9429207)	23	<1	<1	<0.01	1	25	3.04	920	1.8	0.02	81.3	233	2.6	<10
106772 (9429208)	23	<1	<1	0.02	2	29	2.77	706	1.6	0.02	118	165	3.8	<10
106773 (9429209)	20	<1	<1	<0.01	2	13	1.83	705	2.3	0.02	63.5	435	1.3	<10
106774 (9429210)	29	<1	<1	0.03	3	9	2.12	1330	2.2	0.02	38.2	520	6.0	<10
106775 (9429211)	32	<1	<1	<0.01	2	8	2.14	1050	2.7	0.02	79.6	244	3.3	<10
106776 (9429212)	19	<1	<1	<0.01	1	9	1.71	736	1.3	0.02	42.9	234	3.5	<10
106777 (9429213)	28	<1	<1	0.07	9	27	2.64	624	2.0	0.02	89.0	671	24.9	<10
106778 (9429214)	16	<1	<1	0.02	3	11	0.74	438	3.1	0.06	58.7	429	6.0	<10
106779 (9429215)	28	<1	<1	0.12	5	44	3.23	879	1.2	0.02	51.6	298	0.5	<10
106780 (9429216)	12	<1	<1	0.10	6	10	0.59	394	9.3	0.06	32.7	706	4.4	10
106781 (9429217)	23	<1	<1	0.14	21	61	1.18	841	3.0	0.04	59.7	477	4.1	<10
106782 (9429218)	18	<1	<1	0.01	3	15	1.51	586	2.4	0.03	33.9	242	5.8	<10
106783 (9429219)	22	<1	<1	<0.01	2	13	1.91	755	1.9	0.02	53.1	288	6.2	<10
106784 (9429220)	14	<1	<1	0.02	1	7	0.89	540	2.9	0.07	34.1	189	2.8	<10
106962 (9429221)	24	<1	<1	<0.01	<1	3	1.19	475	1.1	0.04	33.6	200	4.8	24
106963 (9429222)	29	<1	<1	0.01	<1	7	1.42	572	0.7	0.02	55.5	581	6.7	23
106964 (9429223)	37	<1	<1	0.02	3	40	1.93	909	1.9	0.02	62.5	391	9.1	18
106965 (9429224)	25	<1	<1	0.01	2	14	1.19	1180	0.7	0.02	44.4	252	7.9	21
106966 (9429225)	24	<1	<1	0.03	7	51	1.16	579	1.0	0.03	36.1	413	1.2	19
106967 (9429226)	23	<1	<1	0.09	10	65	1.53	687	2.3	0.06	46.4	472	2.8	<10
168618 (9429227)	30	<1	<1	0.01	2	39	1.44	1190	5.9	0.01	54.6	82	28.1	<10
168619 (9429228)	34	2	<1	0.04	10	40	2.37	1460	6.9	0.04	61.9	329	7.1	<10
168620 (9429229)	31	<1	<1	<0.01	3	6	0.70	10000	6.7	<0.01	15.6	38	7.9	<10
168621 (9429230)	31	<1	<1	0.07	3	53	2.36	3160	3.9	0.06	32.8	390	1.6	<10

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 18B367066

PROJECT:

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
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CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

### (201-073) Aqua Regia Digest - Metals Package, ICP-OES finish

DATE SAMPLED: Jul 26, 2018

DATE RECEIVED: Jul 26, 2018

DATE REPORTED: Aug 29, 2018

SAMPLE TYPE: Rock

Analyte:	Ga	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Rb
Unit:	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm
RDL:	5	1	1	0.01	1	1	0.01	1	0.5	0.01	0.5	10	0.5	10
168622 (9429231)	27	<1	<1	0.15	6	14	1.65	1440	7.6	0.03	11.3	681	4.3	<10
168623 (9429232)	37	<1	<1	0.02	6	33	2.22	1680	5.8	0.06	12.3	488	2.1	<10
168624 (9429233)	13	<1	<1	0.10	4	6	0.75	983	7.9	0.03	4.7	690	2.5	<10
168625 (9429234)	12	<1	<1	0.11	5	10	0.59	393	9.5	0.06	32.7	687	4.6	10
168626 (9429235)	23	<1	<1	0.19	16	27	2.58	595	5.7	0.05	120	561	1.7	<10
168627 (9429236)	25	<1	<1	0.07	10	6	3.66	998	6.5	0.02	31.4	491	6.4	<10
168628 (9429237)	27	1	<1	0.01	4	20	2.36	889	2.4	0.03	40.8	265	5.5	<10
168629 (9429238)	22	<1	<1	0.12	18	28	2.73	591	3.1	0.03	128	562	4.5	<10
168630 (9429239)	16	<1	<1	0.10	12	1	1.45	999	4.5	0.03	32.2	467	10.2	<10
168631 (9429240)	27	<1	<1	0.05	3	6	3.87	2780	4.4	<0.01	26.2	136	0.6	<10
168632 (9429241)	21	<1	<1	0.06	1	12	1.91	1140	6.6	<0.01	49.5	19	<0.5	<10
168633 (9429242)	29	<1	<1	0.10	4	18	1.93	2130	3.6	0.03	48.6	363	2.8	<10
168634 (9429243)	23	<1	<1	0.12	1	8	1.63	1910	4.4	0.03	41.4	477	2.9	<10
168635 (9429244)	20	<1	<1	0.01	<1	10	1.57	927	1.8	0.04	69.7	215	2.1	<10
168636 (9429245)	34	1	<1	0.69	4	59	3.36	1690	3.9	0.16	163	390	2.4	14
168637 (9429246)	20	<1	<1	0.02	1	14	1.84	678	2.3	0.02	73.7	215	2.5	<10
168638 (9429247)	20	<1	<1	0.08	6	12	1.46	1210	2.7	0.01	36.0	436	10.0	<10
168639 (9429248)	25	<1	<1	0.04	9	15	1.20	2050	3.9	0.03	65.1	600	4.5	<10
168640 (9429249)	20	<1	<1	<0.01	<1	12	1.84	741	1.9	0.03	78.6	186	2.9	<10
168641 (9429250)	7	<1	<1	0.05	<1	6	0.37	715	3.9	<0.01	3.7	<10	<0.5	<10
168642 (9429251)	22	<1	<1	0.02	11	9	1.49	713	6.6	0.06	19.2	609	4.5	<10
168643 (9429252)	21	<1	<1	<0.01	2	10	1.77	1130	2.9	0.02	54.0	294	5.3	<10
168644 (9429253)	39	2	<1	<0.01	5	59	1.95	1060	4.0	<0.01	75.5	245	112	<10
188401 (9429254)	23	<1	<1	0.01	4	30	1.24	2220	5.8	0.01	51.6	251	75.9	<10
188402 (9429255)	22	<1	<1	0.02	1	23	1.28	1420	3.6	0.01	27.0	162	2.6	<10
188403 (9429256)	28	<1	<1	0.04	13	23	1.22	1570	2.0	0.03	15.5	668	1.4	<10
188404 (9429257)	24	<1	<1	0.13	29	20	2.02	785	2.1	0.03	90.3	884	2.1	<10
188405 (9429258)	21	<1	<1	0.08	7	23	1.54	817	3.1	0.04	50.5	380	1.3	<10
188406 (9429259)	25	<1	<1	0.09	12	51	1.35	779	2.7	0.08	76.0	523	0.8	<10
188407 (9429260)	27	<1	<1	0.06	9	19	1.77	812	3.4	0.10	71.3	252	5.1	<10
188408 (9429261)	27	<1	<1	<0.01	3	13	3.21	1050	1.3	0.03	87.6	296	1.5	<10
188409 (9429262)	32	<1	<1	<0.01	3	18	3.48	1640	1.1	0.02	93.8	370	2.2	<10

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 18B367066

PROJECT:

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
TEL (905)501-9998  
FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

(201-073) Aqua Regia Digest - Metals Package, ICP-OES finish

DATE SAMPLED: Jul 26, 2018

DATE RECEIVED: Jul 26, 2018

DATE REPORTED: Aug 29, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte: Unit: RDL:	Ga ppm	Hg ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Rb ppm
		5	1	1	0.01	1	1	0.01	1	0.5	0.01	0.5	10	0.5	10
188410 (9429263)		19	<1	<1	0.13	2	6	1.86	1320	2.8	0.04	47.6	46	<0.5	<10
188411 (9429264)		24	<1	<1	0.06	3	20	2.32	928	1.3	0.04	91.6	362	1.3	<10
188412 (9429265)		10	<1	<1	<0.01	<1	2	0.44	156	13.1	0.02	67.3	48	<0.5	<10
188413 (9429266)		34	<1	<1	0.11	12	30	3.87	1270	4.9	0.07	187	718	<0.5	<10
188414 (9429267)		35	<1	<1	<0.01	5	41	2.93	1150	1.3	0.04	54.8	234	3.7	<10
188415 (9429268)		24	<1	<1	0.05	4	16	1.97	549	1.7	0.09	158	310	3.0	<10

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### (201-073) Aqua Regia Digest - Metals Package, ICP-OES finish

DATE SAMPLED: Jul 26, 2018

DATE RECEIVED: Jul 26, 2018

DATE REPORTED: Aug 29, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte: Unit: RDL:	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm
106763 (9429199)		0.08	<1	3.1	<10	<5	<0.5	<10	<10	<5	0.39	<5	11	188	<1
106764 (9429200)		<0.01	1	5.2	<10	<5	<0.5	<10	<10	<5	0.34	<5	9	122	<1
106765 (9429201)		0.02	1	7.5	<10	<5	<0.5	<10	<10	<5	0.28	<5	7	109	<1
106766 (9429202)		0.03	2	14.8	<10	<5	<0.5	<10	<10	<5	0.24	<5	6	176	<1
106767 (9429203)		0.01	<1	14.7	<10	<5	<0.5	<10	<10	<5	0.19	<5	14	164	<1
106768 (9429204)		0.01	3	5.1	<10	<5	72.5	<10	<10	<5	<0.01	<5	<5	40.7	<1
106769 (9429205)		0.02	<1	4.0	<10	<5	39.7	<10	<10	<5	<0.01	<5	<5	46.3	<1
106770 (9429206)		0.03	<1	4.2	<10	<5	11.4	<10	<10	<5	<0.01	<5	<5	45.2	<1
106771 (9429207)		0.01	<1	3.4	<10	<5	<0.5	<10	<10	<5	0.27	<5	8	86.7	<1
106772 (9429208)		0.07	<1	1.6	<10	<5	<0.5	<10	<10	<5	0.18	<5	<5	60.7	<1
106773 (9429209)		0.05	1	2.9	<10	<5	<0.5	<10	<10	<5	0.24	<5	8	72.7	<1
106774 (9429210)		0.02	<1	4.6	<10	<5	<0.5	<10	<10	<5	0.45	<5	17	182	<1
106775 (9429211)		0.09	<1	18.1	<10	<5	<0.5	<10	<10	<5	0.29	<5	8	194	<1
106776 (9429212)		0.01	<1	2.6	<10	<5	13.2	<10	<10	<5	0.23	<5	8	76.1	<1
106777 (9429213)		2.06	3	4.3	<10	<5	<0.5	<10	<10	<5	<0.01	<5	7	63.3	4
106778 (9429214)		0.05	<1	5.5	<10	<5	41.3	<10	<10	<5	0.45	<5	<5	99.8	<1
106779 (9429215)		0.10	1	11.9	<10	<5	15.4	<10	<10	<5	<0.01	<5	7	85.0	<1
106780 (9429216)		0.11	<1	3.9	<10	<5	3.8	<10	<10	<5	0.09	<5	<5	48.3	<1
106781 (9429217)		0.07	<1	4.2	<10	<5	33.8	<10	<10	<5	<0.01	<5	<5	48.5	<1
106782 (9429218)		0.03	<1	2.8	<10	<5	24.0	<10	<10	<5	0.28	<5	<5	76.0	<1
106783 (9429219)		0.12	<1	4.0	<10	<5	<0.5	<10	<10	<5	0.32	<5	10	89.9	<1
106784 (9429220)		0.01	<1	5.4	<10	<5	13.4	<10	<10	<5	0.23	<5	<5	82.0	<1
106962 (9429221)		0.01	2	3.1	<10	<5	17.9	<10	<10	<5	0.12	<5	9	54.3	<1
106963 (9429222)		0.02	<1	7.6	<10	<5	29.6	<10	<10	<5	0.31	6	20	74.0	<1
106964 (9429223)		0.47	<1	10.2	<10	<5	14.9	<10	<10	<5	0.16	<5	42	157	<1
106965 (9429224)		0.01	3	2.1	<10	<5	13.7	<10	<10	<5	0.07	<5	10	83.2	<1
106966 (9429225)		<0.01	<1	5.3	<10	<5	24.0	<10	<10	<5	<0.01	7	6	54.8	<1
106967 (9429226)		0.04	2	5.6	<10	<5	34.6	<10	<10	<5	<0.01	<5	<5	41.3	<1
168618 (9429227)		1.31	2	10.8	<10	<5	<0.5	<10	<10	<5	<0.01	<5	11	102	3
168619 (9429228)		0.61	2	17.6	<10	<5	2.4	<10	<10	<5	<0.01	<5	13	114	6
168620 (9429229)		0.27	2	3.0	<10	<5	<0.5	<10	<10	<5	<0.01	<5	<5	19.5	<1
168621 (9429230)		0.19	2	27.0	<10	<5	<0.5	<10	<10	<5	<0.01	<5	12	178	<1

Certified By:





## Certificate of Analysis

AGAT WORK ORDER: 18B367066

PROJECT:

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FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

### (201-073) Aqua Regia Digest - Metals Package, ICP-OES finish

DATE SAMPLED: Jul 26, 2018

DATE RECEIVED: Jul 26, 2018

DATE REPORTED: Aug 29, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte: Unit: RDL:	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm
168622 (9429231)		2.18	1	10.2	<10	<5	50.7	<10	<10	<5	<0.01	<5	<5	49.3	<1
168623 (9429232)		0.29	1	25.5	<10	<5	35.7	<10	<10	<5	<0.01	<5	16	224	1
168624 (9429233)		0.29	<1	4.8	<10	<5	18.4	<10	<10	<5	<0.01	<5	<5	22.6	<1
168625 (9429234)		0.11	<1	4.0	<10	<5	3.1	<10	<10	<5	0.10	<5	<5	48.3	<1
168626 (9429235)		0.03	<1	4.7	<10	<5	70.0	<10	<10	<5	<0.01	<5	<5	27.1	<1
168627 (9429236)		0.05	<1	2.6	<10	<5	332	<10	<10	<5	<0.01	<5	<5	13.3	<1
168628 (9429237)		0.09	<1	6.4	<10	<5	18.6	<10	<10	<5	0.17	<5	<5	87.5	<1
168629 (9429238)		0.03	2	5.1	<10	<5	102	<10	<10	<5	<0.01	<5	<5	25.6	<1
168630 (9429239)		0.55	29	7.2	<10	<5	167	<10	<10	<5	<0.01	<5	<5	8.2	<1
168631 (9429240)		0.07	<1	4.4	<10	<5	100	<10	<10	<5	<0.01	<5	<5	62.4	<1
168632 (9429241)		0.02	1	5.8	<10	<5	22.1	<10	<10	<5	<0.01	<5	<5	26.4	<1
168633 (9429242)		0.62	<1	18.2	<10	<5	35.4	<10	<10	<5	<0.01	<5	7	122	<1
168634 (9429243)		1.68	3	12.0	<10	<5	32.8	<10	<10	<5	<0.01	<5	<5	46.2	<1
168635 (9429244)		0.13	<1	3.8	<10	<5	<0.5	<10	<10	<5	0.22	<5	<5	102	<1
168636 (9429245)		1.70	3	16.0	<10	<5	54.6	<10	<10	<5	0.11	<5	9	184	11
168637 (9429246)		0.04	1	3.0	<10	<5	<0.5	<10	<10	<5	0.24	<5	6	57.5	<1
168638 (9429247)		1.04	2	2.4	<10	<5	172	<10	<10	<5	<0.01	<5	<5	20.6	<1
168639 (9429248)		1.70	<1	10.3	<10	<5	12.3	<10	<10	<5	0.20	<5	7	86.0	<1
168640 (9429249)		0.11	<1	2.4	<10	<5	<0.5	<10	<10	<5	0.27	<5	7	61.4	<1
168641 (9429250)		0.06	<1	1.6	<10	<5	39.2	<10	<10	<5	0.01	<5	<5	29.8	<1
168642 (9429251)		0.18	1	4.8	<10	<5	<0.5	<10	<10	<5	0.24	<5	10	48.9	<1
168643 (9429252)		0.13	<1	4.2	<10	<5	<0.5	<10	<10	<5	0.39	<5	7	137	<1
168644 (9429253)		3.05	5	11.4	<10	<5	<0.5	<10	<10	<5	<0.01	<5	22	78.3	16
188401 (9429254)		1.03	<1	6.7	<10	<5	<0.5	<10	<10	<5	<0.01	<5	<5	43.8	<1
188402 (9429255)		0.03	<1	6.8	<10	<5	<0.5	<10	<10	<5	<0.01	<5	<5	55.0	<1
188403 (9429256)		0.06	<1	19.4	<10	<5	<0.5	<10	<10	<5	<0.01	<5	8	193	<1
188404 (9429257)		0.02	2	4.2	<10	<5	64.4	<10	<10	<5	<0.01	<5	<5	23.2	<1
188405 (9429258)		0.04	<1	6.5	<10	<5	<0.5	<10	<10	<5	0.03	<5	8	90.1	<1
188406 (9429259)		0.08	<1	9.7	<10	<5	<0.5	<10	<10	<5	<0.01	<5	9	87.5	<1
188407 (9429260)		0.03	1	8.2	<10	<5	21.4	<10	<10	<5	0.17	<5	5	96.2	<1
188408 (9429261)		0.05	<1	3.4	<10	<5	<0.5	<10	<10	<5	0.22	<5	10	86.9	<1
188409 (9429262)		0.03	3	8.4	<10	<5	<0.5	<10	<10	<5	0.24	<5	15	163	<1

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 18B367066

PROJECT:

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
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CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

(201-073) Aqua Regia Digest - Metals Package, ICP-OES finish

DATE SAMPLED: Jul 26, 2018

DATE RECEIVED: Jul 26, 2018

DATE REPORTED: Aug 29, 2018

SAMPLE TYPE: Rock

Analyte:	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	
Unit:	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	
Sample ID (AGAT ID)	RDL:	0.01	1	0.5	10	5	0.5	10	10	5	0.01	5	5	0.5	1
188410 (9429263)		0.10	<1	10.7	<10	<5	45.4	<10	<10	<5	<0.01	<5	<5	18.4	<1
188411 (9429264)		0.04	<1	9.0	<10	<5	1.7	<10	<10	<5	0.18	<5	<5	115	<1
188412 (9429265)		<0.01	<1	1.5	<10	<5	<0.5	<10	<10	<5	0.02	<5	<5	37.7	<1
188413 (9429266)		<0.01	1	8.7	<10	<5	19.3	<10	<10	<5	<0.01	<5	<5	79.2	<1
188414 (9429267)		0.03	<1	22.6	<10	<5	<0.5	<10	<10	<5	0.29	<5	9	216	<1
188415 (9429268)		<0.01	2	2.4	<10	<5	<0.5	<10	<10	<5	0.20	<5	6	64.9	<1

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### (201-073) Aqua Regia Digest - Metals Package, ICP-OES finish

DATE SAMPLED: Jul 26, 2018

DATE RECEIVED: Jul 26, 2018

DATE REPORTED: Aug 29, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte: Unit: RDL:	Y ppm 1	Zn ppm 0.5	Zr ppm 5
106763 (9429199)		8	71.2	6
106764 (9429200)		4	59.8	6
106765 (9429201)		5	82.2	6
106766 (9429202)		7	75.4	7
106767 (9429203)		6	31.1	9
106768 (9429204)		5	92.0	26
106769 (9429205)		2	44.7	7
106770 (9429206)		3	58.1	7
106771 (9429207)		4	62.1	<5
106772 (9429208)		4	51.4	<5
106773 (9429209)		5	58.3	<5
106774 (9429210)		6	131	<5
106775 (9429211)		5	85.1	<5
106776 (9429212)		5	56.2	<5
106777 (9429213)		3	126	8
106778 (9429214)		7	191	13
106779 (9429215)		3	87.0	5
106780 (9429216)		8	56.1	8
106781 (9429217)		4	75.6	13
106782 (9429218)		6	43.5	9
106783 (9429219)		6	48.6	<5
106784 (9429220)		4	26.9	<5
106962 (9429221)		2	27.9	8
106963 (9429222)		5	33.4	<5
106964 (9429223)		3	41.8	<5
106965 (9429224)		2	82.1	9
106966 (9429225)		2	47.5	9
106967 (9429226)		4	68.8	21
168618 (9429227)		2	764	<5
168619 (9429228)		4	1740	14
168620 (9429229)		2	270	<5
168621 (9429230)		4	114	<5

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CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

### (201-073) Aqua Regia Digest - Metals Package, ICP-OES finish

DATE SAMPLED: Jul 26, 2018

DATE RECEIVED: Jul 26, 2018

DATE REPORTED: Aug 29, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte: Unit: RDL:	Y ppm 1	Zn ppm 0.5	Zr ppm 5
168622 (9429231)		5	69.4	10
168623 (9429232)		3	108	12
168624 (9429233)		4	38.1	6
168625 (9429234)		8	55.4	8
168626 (9429235)		6	59.7	29
168627 (9429236)		6	35.5	9
168628 (9429237)		5	56.3	8
168629 (9429238)		6	67.1	32
168630 (9429239)		6	59.3	21
168631 (9429240)		7	59.2	<5
168632 (9429241)		4	27.9	<5
168633 (9429242)		3	90.1	<5
168634 (9429243)		4	33.9	<5
168635 (9429244)		3	56.3	<5
168636 (9429245)		7	47.5	<5
168637 (9429246)		4	50.7	<5
168638 (9429247)		4	135	8
168639 (9429248)		8	77.1	7
168640 (9429249)		2	66.8	<5
168641 (9429250)		1	25.4	<5
168642 (9429251)		7	79.8	15
168643 (9429252)		4	94.8	<5
168644 (9429253)		3	4450	9
188401 (9429254)		3	395	9
188402 (9429255)		3	101	<5
188403 (9429256)		5	137	13
188404 (9429257)		7	72.5	33
188405 (9429258)		4	59.6	9
188406 (9429259)		4	86.9	16
188407 (9429260)		6	61.4	16
188408 (9429261)		5	78.4	<5
188409 (9429262)		5	122	<5

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 18B367066

PROJECT:

5623 McADAM ROAD  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1N9  
 TEL (905)501-9998  
 FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

(201-073) Aqua Regia Digest - Metals Package, ICP-OES finish

DATE SAMPLED: Jul 26, 2018

DATE RECEIVED: Jul 26, 2018

DATE REPORTED: Aug 29, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte:	Y	Zn	Zr
	Unit:	ppm	ppm	ppm
	RDL:	1	0.5	5
188410 (9429263)		6	18.0	<5
188411 (9429264)		6	62.2	<5
188412 (9429265)		<1	13.4	<5
188413 (9429266)		3	76.3	13
188414 (9429267)		9	82.7	9
188415 (9429268)		5	49.8	13

Comments: RDL - Reported Detection Limit  
 Possible contamination on sample 9429245-168636

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 18B367066

PROJECT:

5623 McADAM ROAD  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1N9  
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CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

(202-051) Fire Assay - Trace Au, AAS finish

DATE SAMPLED: Jul 26, 2018

DATE RECEIVED: Jul 26, 2018

DATE REPORTED: Aug 29, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte: Au Unit: ppm RDL: 0.002
106763 (9429199)	<0.002
106764 (9429200)	<0.002
106765 (9429201)	<0.002
106766 (9429202)	<0.002
106767 (9429203)	<0.002
106768 (9429204)	0.025
106769 (9429205)	<0.002
106770 (9429206)	<0.002
106771 (9429207)	<0.002
106772 (9429208)	<0.002
106773 (9429209)	<0.002
106774 (9429210)	<0.002
106775 (9429211)	<0.002
106776 (9429212)	<0.002
106777 (9429213)	<0.002
106778 (9429214)	<0.002
106779 (9429215)	<0.002
106780 (9429216)	0.376
106781 (9429217)	<0.002
106782 (9429218)	0.518
106783 (9429219)	<0.002
106784 (9429220)	<0.002
106962 (9429221)	<0.002
106963 (9429222)	<0.002
106964 (9429223)	<0.002
106965 (9429224)	<0.002
106966 (9429225)	<0.002
106967 (9429226)	<0.002
168618 (9429227)	0.074
168619 (9429228)	<0.002
168620 (9429229)	0.010
168621 (9429230)	<0.002

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 18B367066

PROJECT:

5623 McADAM ROAD  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1N9  
 TEL (905)501-9998  
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<http://www.agatlabs.com>

CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

### (202-051) Fire Assay - Trace Au, AAS finish

DATE SAMPLED: Jul 26, 2018

DATE RECEIVED: Jul 26, 2018

DATE REPORTED: Aug 29, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte:	Unit:	RDL:	Value
	Au	ppm	0.002	
168622 (9429231)				8.04
168623 (9429232)				0.197
168624 (9429233)				0.067
168625 (9429234)				0.423
168626 (9429235)				0.002
168627 (9429236)				<0.002
168628 (9429237)				<0.002
168629 (9429238)				<0.002
168630 (9429239)				0.020
168631 (9429240)				0.015
168632 (9429241)				<0.002
168633 (9429242)				0.003
168634 (9429243)				0.018
168635 (9429244)				<0.002
168636 (9429245)				0.211
168637 (9429246)				<0.002
168638 (9429247)				<0.002
168639 (9429248)				<0.002
168640 (9429249)				<0.002
168641 (9429250)				<0.002
168642 (9429251)				<0.002
168643 (9429252)				<0.002
168644 (9429253)				0.085
188401 (9429254)				0.033
188402 (9429255)				<0.002
188403 (9429256)				<0.002
188404 (9429257)				<0.002
188405 (9429258)				<0.002
188406 (9429259)				<0.002
188407 (9429260)				<0.002
188408 (9429261)				<0.002
188409 (9429262)				<0.002

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 18B367066

PROJECT:

5623 McADAM ROAD  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1N9  
 TEL (905)501-9998  
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CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

### (202-051) Fire Assay - Trace Au, AAS finish

DATE SAMPLED: Jul 26, 2018

DATE RECEIVED: Jul 26, 2018

DATE REPORTED: Aug 29, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte:	Unit:	RDL:
	Au	ppm	0.002
188410 (9429263)			<0.002
188411 (9429264)			<0.002
188412 (9429265)			<0.002
188413 (9429266)			<0.002
188414 (9429267)			<0.002
188415 (9429268)			<0.002

Comments: RDL - Reported Detection Limit  
 Possible contamination on sample 9429245-168636

Certified By:





## Certificate of Analysis

AGAT WORK ORDER: 18B367066

PROJECT:

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
TEL (905)501-9998  
FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

### Sieving - % Passing (Crushing)

DATE SAMPLED: Jul 26, 2018

DATE RECEIVED: Jul 26, 2018

DATE REPORTED: Aug 29, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte: Unit: RDL:	Pass % % 0.01
106764 (9429200)		93
106774 (9429210)		87
106784 (9429220)		96
168619 (9429228)		83
168626 (9429235)		88
168635 (9429244)		86.5
168644 (9429253)		85
188407 (9429260)		89

Comments: RDL - Reported Detection Limit  
Possible contamination on sample 9429245-168636

Certified By:



## Certificate of Analysis

AGAT WORK ORDER: 18B367066

PROJECT:

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
TEL (905)501-9998  
FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

### Sieving - % Passing (Pulverizing)

DATE SAMPLED: Jul 26, 2018

DATE RECEIVED: Jul 26, 2018

DATE REPORTED: Aug 29, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte:	Pass %
	Unit:	%
	RDL:	0.01
106763 (9429199)		92
168619 (9429228)		98.9

Comments: RDL - Reported Detection Limit  
Possible contamination on sample 9429245-168636

Certified By:



CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

(201-073) Aqua Regia Digest - Metals Package, ICP-OES finish

Parameter	REPLICATE #1				REPLICATE #2				REPLICATE #3				REPLICATE #4			
	Sample ID	Original	Replicate	RPD	Sample ID	Original	Replicate	RPD	Sample ID	Original	Replicate	RPD	Sample ID	Original	Replicate	RPD
Ag	9429210	< 0.2	< 0.2	0.0%	9429223	< 0.2	< 0.2	0.0%	9429235	< 0.2	< 0.2	0.0%	9429250	< 0.2	< 0.2	0.0%
Al	9429210	3.49	3.56	2.0%	9429223	2.99	3.01	0.7%	9429235	1.66	1.64	1.2%	9429250	0.581	0.554	4.8%
As	9429210	< 1	< 1	0.0%	9429223	15	16.5	9.5%	9429235	2	< 1		9429250	< 1	3	
B	9429210	104	105	1.0%	9429223	109	106	2.8%	9429235	36	35	2.8%	9429250	38	44	14.6%
Ba	9429210	82	83	1.2%	9429223	58	58	0.0%	9429235	77	75	2.6%	9429250	20	22	9.5%
Be	9429210	< 0.5	< 0.5	0.0%	9429223	< 0.5	< 0.5	0.0%	9429235	< 0.5	< 0.5	0.0%	9429250	< 0.5	< 0.5	0.0%
Bi	9429210	< 1	< 1	0.0%	9429223	< 1	< 1	0.0%	9429235	< 1	< 1	0.0%	9429250	< 1	< 1	0.0%
Ca	9429210	1.04	1.07	2.8%	9429223	0.40	0.31	25.4%	9429235	3.43	3.36	2.1%	9429250	5.90	5.88	0.3%
Cd	9429210	< 0.5	< 0.5	0.0%	9429223	< 0.5	< 0.5	0.0%	9429235	< 0.5	< 0.5	0.0%	9429250	< 0.5	< 0.5	0.0%
Ce	9429210	3	3	0.0%	9429223	1	1.5	40.0%	9429235	31	31	0.0%	9429250	< 1	< 1	0.0%
Co	9429210	40.3	40.9	1.5%	9429223	54.9	53	3.5%	9429235	22.2	22.2	0.0%	9429250	4.27	4.00	6.5%
Cr	9429210	45.3	46.5	2.6%	9429223	29.1	26	11.3%	9429235	142	141	0.7%	9429250	21.6	26.6	20.7%
Cu	9429210	80.9	83.4	3.0%	9429223	132	131	0.8%	9429235	15.1	14.2	6.1%	9429250	177	182	2.8%
Fe	9429210	9.01	9.08	0.8%	9429223	7.98	8.0	0.3%	9429235	3.32	3.31	0.3%	9429250	1.43	1.43	0.0%
Ga	9429210	29	32	9.8%	9429223	37	41	10.3%	9429235	23	26	12.2%	9429250	7	10	
Hg	9429210	< 1	< 1	0.0%	9429223	< 1	< 1	0.0%	9429235	< 1	< 1	0.0%	9429250	< 1	< 1	0.0%
In	9429210	< 1	< 1	0.0%	9429223	< 1	< 1	0.0%	9429235	< 1	< 1	0.0%	9429250	< 1	< 1	0.0%
K	9429210	0.03	0.03	0.0%	9429223	0.02	0.01	66.7%	9429235	0.186	0.183	1.6%	9429250	0.055	0.065	16.7%
La	9429210	3	3	0.0%	9429223	3	2	40.0%	9429235	16	15	6.5%	9429250	< 1	< 1	0.0%
Li	9429210	9	9	0.0%	9429223	40	46	14.0%	9429235	27	25	7.7%	9429250	6	5	18.2%
Mg	9429210	2.12	2.15	1.4%	9429223	1.93	1.9	1.6%	9429235	2.58	2.54	1.6%	9429250	0.366	0.342	6.8%
Mn	9429210	1330	1360	2.2%	9429223	909	924	1.6%	9429235	595	593	0.3%	9429250	715	734	2.6%
Mo	9429210	2.17	1.79	19.2%	9429223	1.9	2.3	19.0%	9429235	5.68	5.96	4.8%	9429250	3.94	5.22	27.9%
Na	9429210	0.02	0.02	0.0%	9429223	0.02	0.01	66.7%	9429235	0.05	0.05	0.0%	9429250	< 0.01	< 0.01	0.0%
Ni	9429210	38.2	39.2	2.6%	9429223	62.5	59	5.8%	9429235	120	119	0.8%	9429250	3.7	3.3	11.4%
P	9429210	520	528	1.5%	9429223	391	381	2.6%	9429235	561	560	0.2%	9429250	< 10	14	
Pb	9429210	6.0	6.7	11.0%	9429223	9.1	8.5	6.8%	9429235	1.7	2.1	21.1%	9429250	< 0.5	1.2	
Rb	9429210	< 10	< 10	0.0%	9429223	18	22	20.0%	9429235	< 10	< 10	0.0%	9429250	< 10	< 10	0.0%
S	9429210	0.02	0.02	0.0%	9429223	0.47	0.47	0.0%	9429235	0.03	0.03	0.0%	9429250	0.06	0.06	0.0%
Sb	9429210	< 1	< 1	0.0%	9429223	< 1	1		9429235	< 1	1		9429250	< 1	< 1	0.0%
Sc	9429210	4.6	4.8	4.3%	9429223	10.2	9.6	6.1%	9429235	4.7	4.7	0.0%	9429250	1.6	1.5	6.5%



CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

Se	9429210	< 10	< 10	0.0%	9429223	< 10	<10	0.0%	9429235	< 10	< 10	0.0%	9429250	< 10	< 10	0.0%
Sn	9429210	< 5	< 5	0.0%	9429223	< 5	<5	0.0%	9429235	< 5	< 5	0.0%	9429250	< 5	< 5	0.0%
Sr	9429210	< 0.5	< 0.5	0.0%	9429223	14.9	11.9	22.4%	9429235	70.0	86.5	21.1%	9429250	39.2	40.3	2.8%
Ta	9429210	< 10	< 10	0.0%	9429223	< 10	<10	0.0%	9429235	< 10	< 10	0.0%	9429250	< 10	< 10	0.0%
Te	9429210	< 10	< 10	0.0%	9429223	< 10	< 10	0.0%	9429235	< 10	< 10	0.0%	9429250	< 10	< 10	0.0%
Th	9429210	< 5	< 5	0.0%	9429223	< 5	<5	0.0%	9429235	< 5	< 5	0.0%	9429250	< 5	< 5	0.0%
Ti	9429210	0.45	0.48	6.5%	9429223	0.16	0.126	23.8%	9429235	< 0.01	< 0.01	0.0%	9429250	0.01	< 0.01	
Tl	9429210	< 5	< 5	0.0%	9429223	< 5	<5	0.0%	9429235	< 5	< 5	0.0%	9429250	< 5	< 5	0.0%
U	9429210	17	16	6.1%	9429223	42	35	18.2%	9429235	< 5	< 5	0.0%	9429250	< 5	< 5	0.0%
V	9429210	182	187	2.7%	9429223	157	154	1.9%	9429235	27.1	26.4	2.6%	9429250	29.8	29.2	2.0%
W	9429210	< 1	< 1	0.0%	9429223	< 1	< 1	0.0%	9429235	< 1	< 1	0.0%	9429250	< 1	< 1	0.0%
Y	9429210	6	6	0.0%	9429223	3	2.5	18.2%	9429235	6	6	0.0%	9429250	1	1	0.0%
Zn	9429210	131	133	1.5%	9429223	41.8	44	5.1%	9429235	59.7	58.4	2.2%	9429250	25.4	24.2	4.8%
Zr	9429210	< 5	< 5	0.0%	9429223	< 5	<5		9429235	29	28	3.5%	9429250	< 5	< 5	0.0%

REPLICATE #5

Parameter	Sample ID	Original	Replicate	RPD												
Ag	9429263	< 0.2	< 0.2	0.0%												
Al	9429263	0.47	0.49	4.2%												
As	9429263	986	1010	2.4%												
B	9429263	47	48	2.1%												
Ba	9429263	46	49	6.3%												
Be	9429263	< 0.5	< 0.5	0.0%												
Bi	9429263	< 1	< 1	0.0%												
Ca	9429263	6.70	6.86	2.4%												
Cd	9429263	< 0.5	< 0.5	0.0%												
Ce	9429263	2	3													
Co	9429263	21.3	22.0	3.2%												
Cr	9429263	25.4	25.7	1.2%												
Cu	9429263	2.75	2.31	17.4%												
Fe	9429263	4.43	4.54	2.5%												
Ga	9429263	19	17	11.1%												
Hg	9429263	< 1	< 1	0.0%												
In	9429263	< 1	< 1	0.0%												
K	9429263	0.13	0.13	0.0%												



CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

La	9429263	2	2	0.0%												
Li	9429263	6	5	18.2%												
Mg	9429263	1.86	1.90	2.1%												
Mn	9429263	1320	1350	2.2%												
Mo	9429263	2.80	3.19	13.0%												
Na	9429263	0.04	0.04	0.0%												
Ni	9429263	47.6	48.8	2.5%												
P	9429263	46	47	2.2%												
Pb	9429263	< 0.5	0.7													
Rb	9429263	< 10	< 10	0.0%												
S	9429263	0.103	0.110	6.6%												
Sb	9429263	< 1	< 1	0.0%												
Sc	9429263	10.7	11.0	2.8%												
Se	9429263	< 10	< 10	0.0%												
Sn	9429263	< 5	< 5	0.0%												
Sr	9429263	45.4	54.4	18.0%												
Ta	9429263	< 10	< 10	0.0%												
Te	9429263	< 10	< 10	0.0%												
Th	9429263	< 5	< 5	0.0%												
Ti	9429263	< 0.01	< 0.01	0.0%												
Tl	9429263	< 5	< 5	0.0%												
U	9429263	< 5	< 5	0.0%												
V	9429263	18.4	18.8	2.2%												
W	9429263	< 1	< 1	0.0%												
Y	9429263	6	6	0.0%												
Zn	9429263	18.0	19.6	8.5%												
Zr	9429263	< 5	< 5	0.0%												

(202-051) Fire Assay - Trace Au, AAS finish

Parameter	REPLICATE #1				REPLICATE #2				REPLICATE #3				REPLICATE #4			
	Sample ID	Original	Replicate	RPD	Sample ID	Original	Replicate	RPD	Sample ID	Original	Replicate	RPD	Sample ID	Original	Replicate	RPD
Au	9429199	< 0.002	< 0.002	0.0%	9429210	< 0.002	< 0.002	0.0%	9429223	< 0.002	< 0.002	0.0%	9429235	0.002	< 0.002	
Parameter	REPLICATE #5				REPLICATE #6											
	Sample ID	Original	Replicate	RPD	Sample ID	Original	Replicate	RPD								
Au	9429250	< 0.002	< 0.002	0.0%	9429263	< 0.002	< 0.002	0.0%								



CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

**(201-073) Aqua Regia Digest - Metals Package, ICP-OES finish**

Parameter	CRM #1 (ref.CDN-ME-1303)				CRM #2 (ref.CDN-ME-1206)				CRM #3 (ref.CDN-ME-1303)				CRM #4 (ref.WW07)			
	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits
Ag	152	151	99%	90% - 110%	274	275	100%	90% - 110%	152	148	97%	90% - 110%				
Cu	3440	3370	98%	90% - 110%	7900	8200	104%	90% - 110%	3440	3390	98%	90% - 110%				
Pb	12200	12188	100%	90% - 110%	8010	7879	98%	90% - 110%	12200	12448	102%	90% - 110%				
Zn	9310	9171	99%	90% - 110%	23800	23709	100%	90% - 110%	9310	9131	98%	90% - 110%				

**(202-051) Fire Assay - Trace Au, AAS finish**

Parameter	CRM #1 (ref.WW03)				CRM #2 (ref.WW03)				CRM #3 (ref.WW07)				CRM #4 (ref.WW07)			
	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits
Au	2.01	1.89	94%	90% - 110%	2.01	1.87	93%	90% - 110%	6.56	6.3	96%	90% - 110%	6.56	6.76	103%	90% - 110%



## Method Summary

CLIENT NAME: ALTO VENTURES LTD

AGAT WORK ORDER: 18B367066

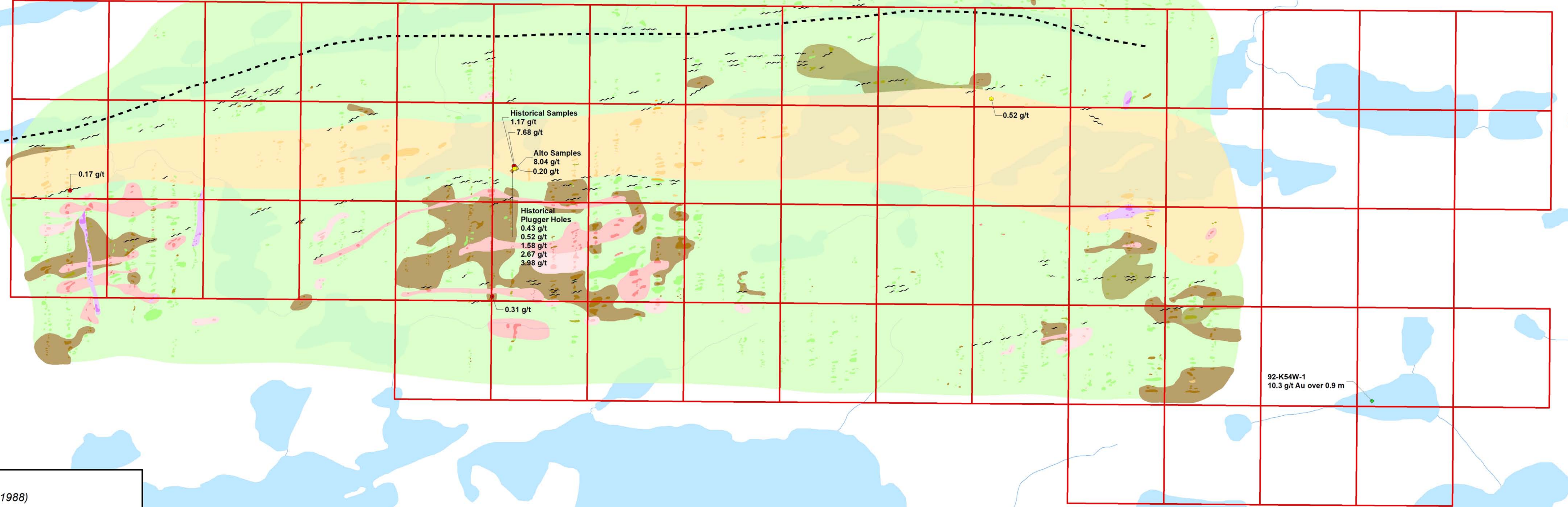
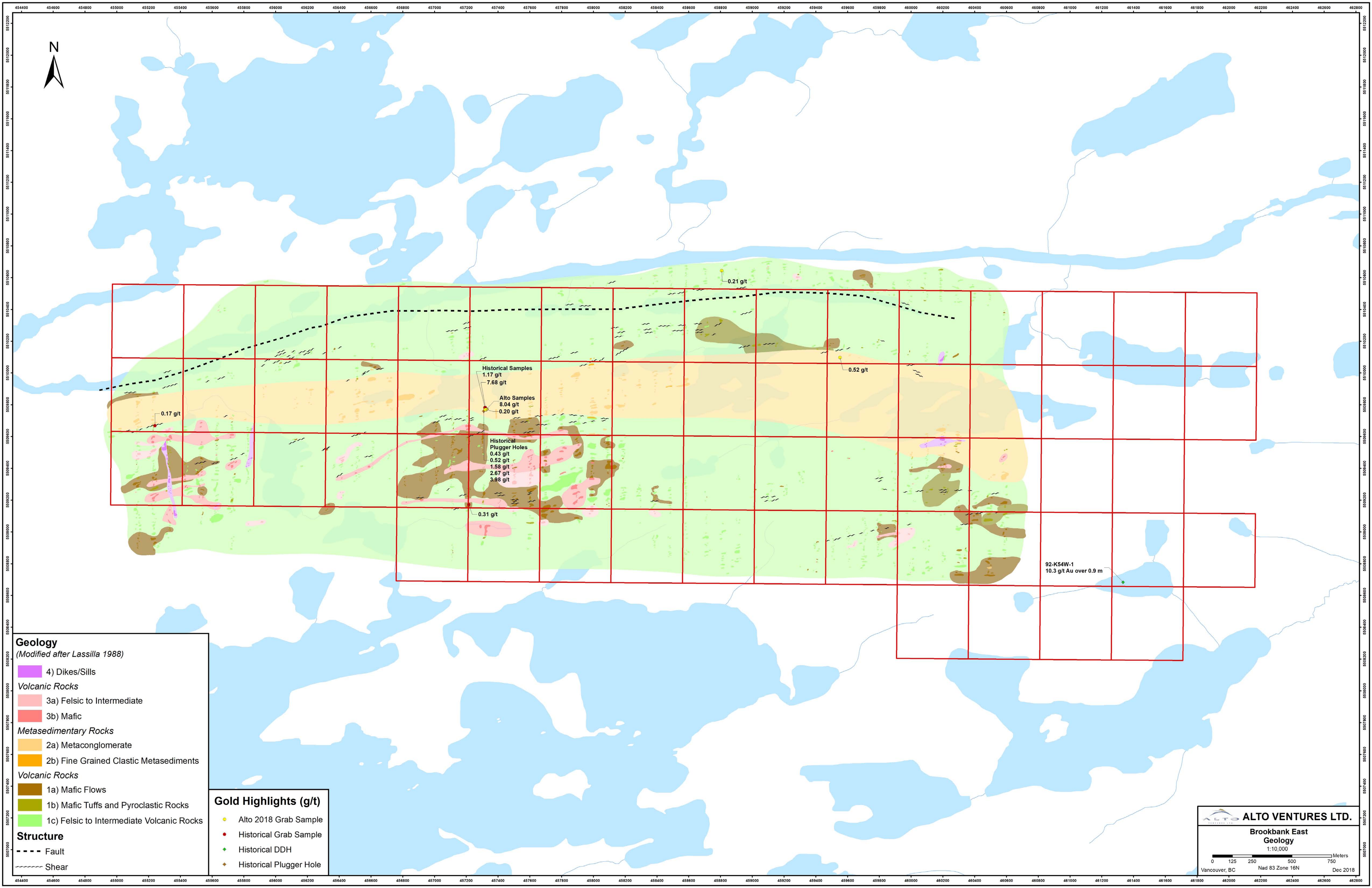
PROJECT:

ATTENTION TO: MIKE KOZIOL

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Solid Analysis			
Sample Login Weight	MIN-12009		BALANCE
Ag	MIN-200-12020		ICP/OES
Al	MIN-200-12020		ICP/OES
As	MIN-200-12020		ICP/OES
B	MIN-200-12020		ICP/OES
Ba	MIN-200-12020		ICP/OES
Be	MIN-200-12020		ICP/OES
Bi	MIN-200-12020		ICP/OES
Ca	MIN-200-12020		ICP/OES
Cd	MIN-200-12020		ICP/OES
Ce	MIN-200-12020		ICP/OES
Co	MIN-200-12020		ICP/OES
Cr	MIN-200-12020		ICP/OES
Cu	MIN-200-12020		ICP/OES
Fe	MIN-200-12020		ICP/OES
Ga	MIN-200-12020		ICP/OES
Hg	MIN-200-12020		ICP/OES
In	MIN-200-12020		ICP/OES
K	MIN-200-12020		ICP/OES
La	MIN-200-12020		ICP/OES
Li	MIN-200-12020		ICP/OES
Mg	MIN-200-12020		ICP/OES
Mn	MIN-200-12020		ICP/OES
Mo	MIN-200-12020		ICP/OES
Na	MIN-200-12020		ICP/OES
Ni	MIN-200-12020		ICP/OES
P	MIN-200-12020		ICP/OES
Pb	MIN-200-12020		ICP/OES
Rb	MIN-200-12020		ICP/OES
S	MIN-200-12020		ICP/OES
Sb	MIN-200-12020		ICP/OES
Sc	MIN-200-12020		ICP/OES
Se	MIN-200-12020		ICP/OES
Sn	MIN-200-12020		ICP/OES
Sr	MIN-200-12020		ICP/OES
Ta	MIN-200-12020		ICP/OES
Te	MIN-200-12020		ICP/OES
Th	MIN-200-12020		ICP/OES
Ti	MIN-200-12020		ICP/OES
Tl	MIN-200-12020		ICP/OES
U	MIN-200-12020		ICP/OES
V	MIN-200-12020		ICP/OES
W	MIN-200-12020		ICP/OES
Y	MIN-200-12020		ICP/OES
Zn	MIN-200-12020		ICP/OES
Zr	MIN-200-12020		ICP/OES
Au	MIN-12004 MIN-12019	BUGBEE, E: A Textbook of Fire Assaying	AA
Pass %			BALANCE



**Geology**  
(Modified after Lassilla 1988)

- 4) Dikes/Sills
- Volcanic Rocks**
- 3a) Felsic to Intermediate
- 3b) Mafic
- Metasedimentary Rocks**
- 2a) Metaconglomerate
- 2b) Fine Grained Clastic Metasediments
- Volcanic Rocks**
- 1a) Mafic Flows
- 1b) Mafic Tuffs and Pyroclastic Rocks
- 1c) Felsic to Intermediate Volcanic Rocks

**Structure**

- Fault
- Shear

**Gold Highlights (g/t)**

- Alto 2018 Grab Sample
- Historical Grab Sample
- Historical DDH
- Historical Plugger Hole

Historical Samples  
1.17 g/t  
7.68 g/t

Alto Samples  
8.04 g/t  
0.20 g/t

Historical Plugger Holes  
0.43 g/t  
0.52 g/t  
1.58 g/t  
2.67 g/t  
3.98 g/t

0.17 g/t

0.21 g/t

0.52 g/t

0.31 g/t

92-K54W-1  
10.3 g/t Au over 0.9 m

**ALTO VENTURES LTD.**

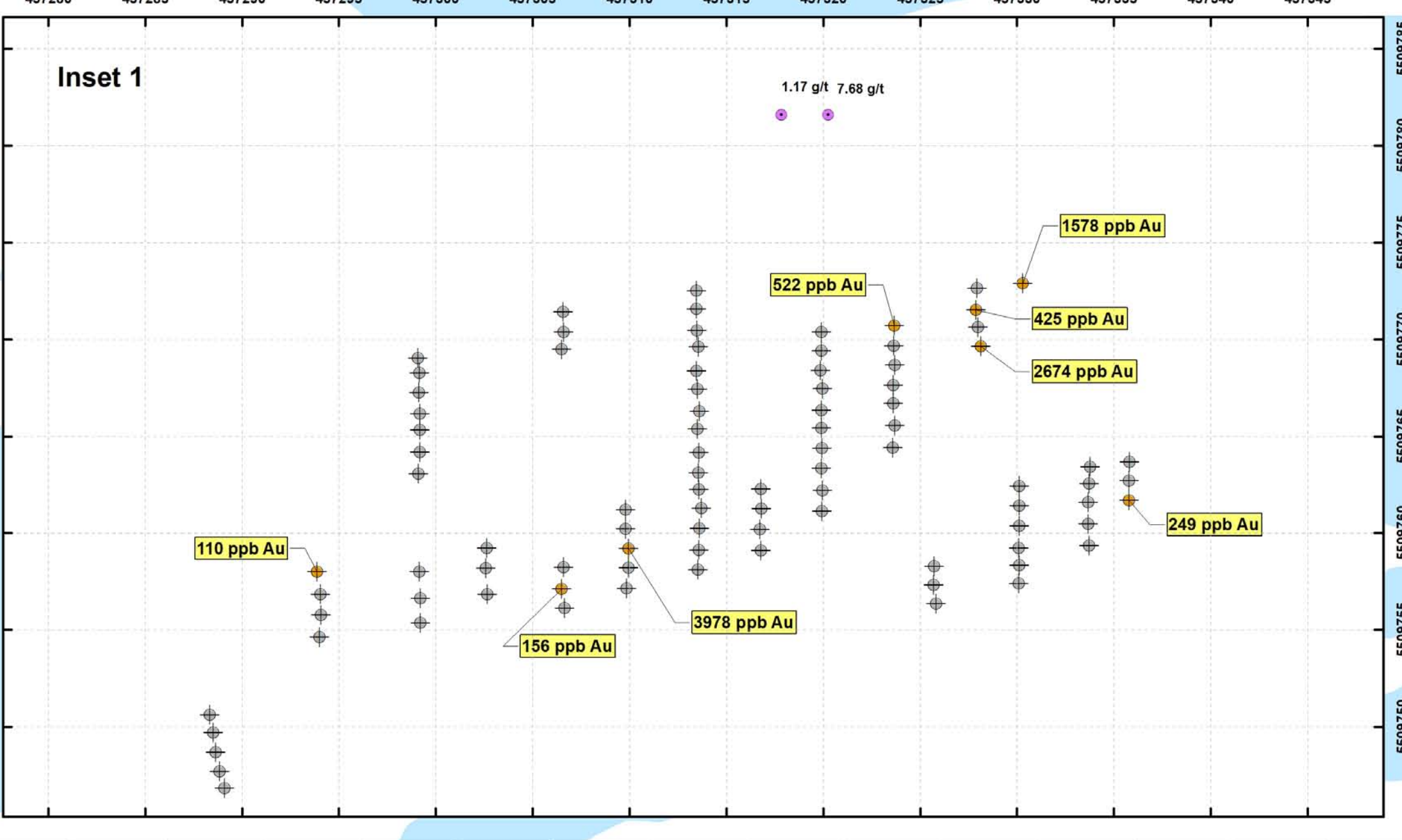
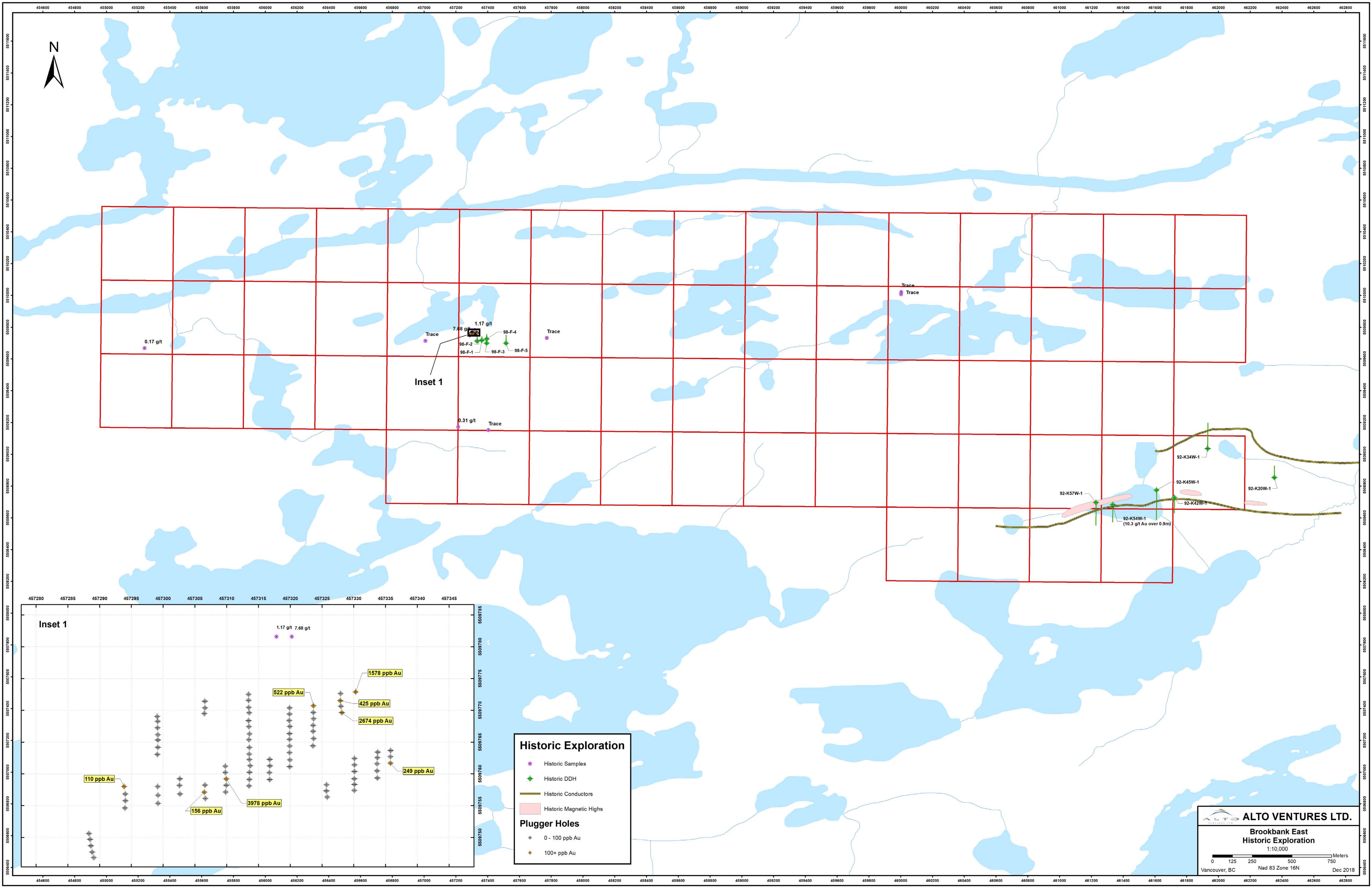
**Brookbank East  
Geology**

1:10,000

0 125 250 500 750 Meters

Vancouver, BC Nad 83 Zone 16N Dec 2018





**Historic Exploration**

- Historic Samples
- ◆ Historic DDH
- Historic Conductors
- Historic Magnetic Highs

**Plugger Holes**

- ◆ 0 - 100 ppb Au
- ◆ 100+ ppb Au

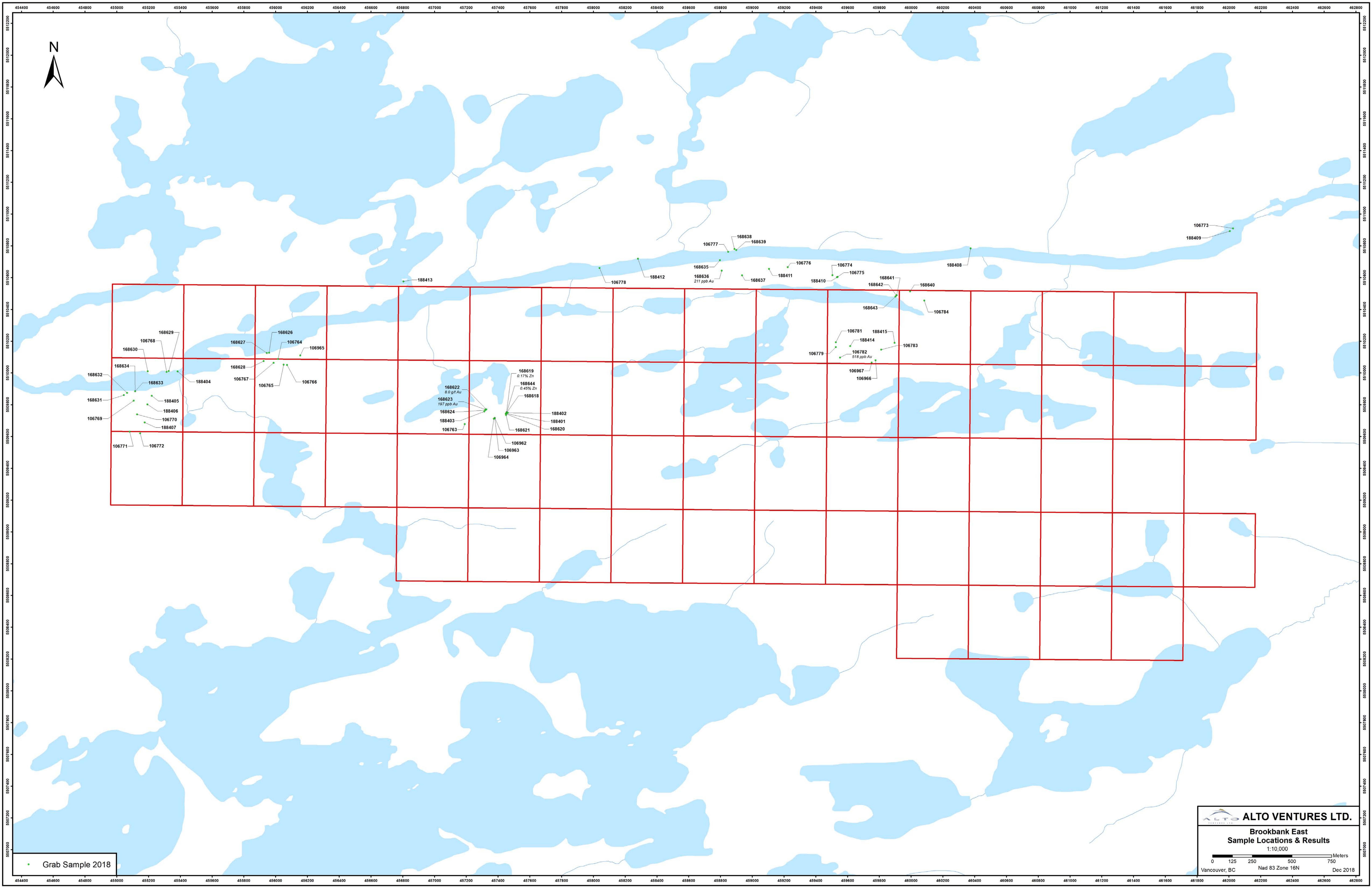
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**Brookbank East  
Historic Exploration**

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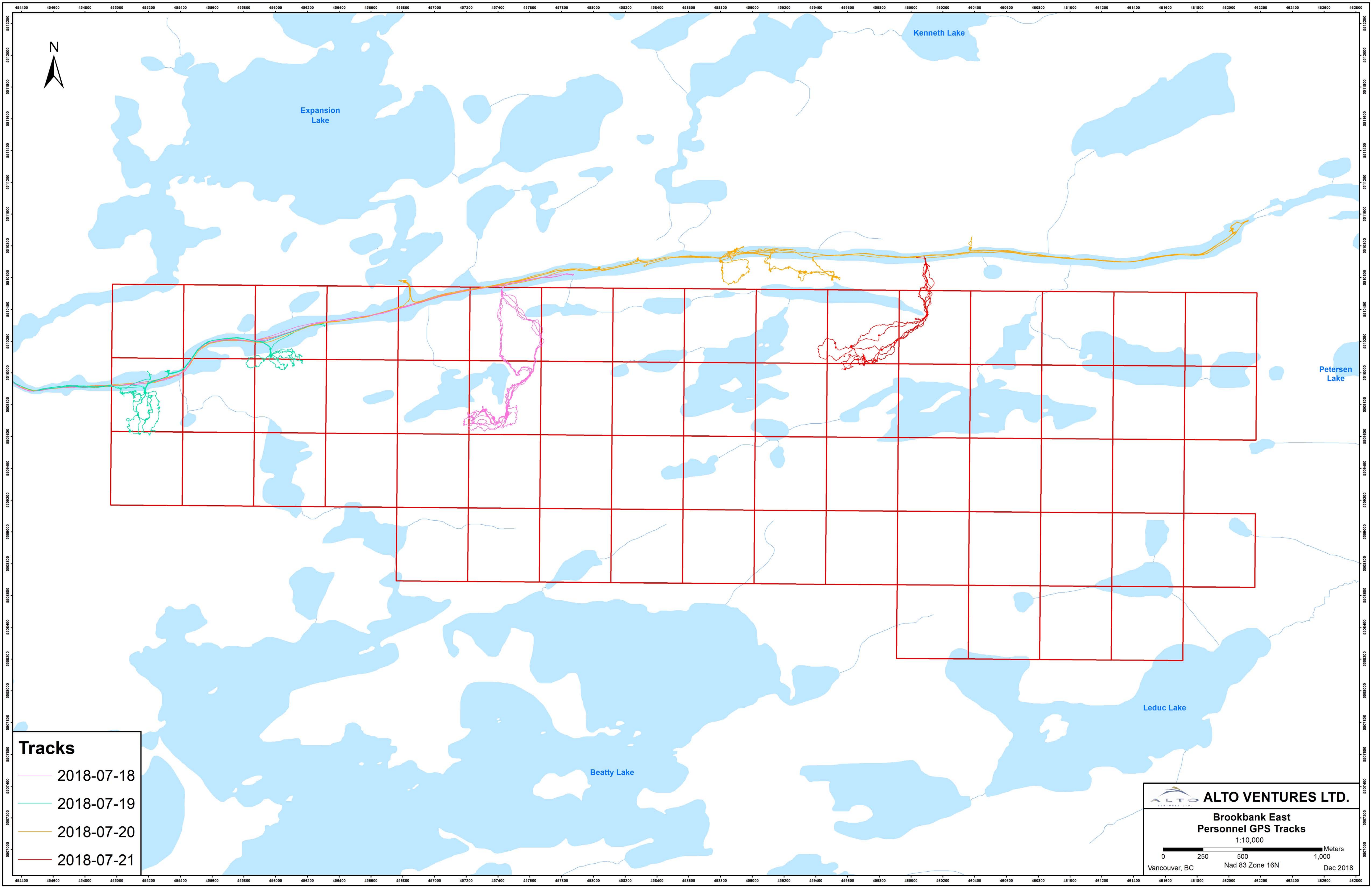
0 125 250 500 750 Meters

Vancouver, BC Nad 83 Zone 16N Dec 2018



• Grab Sample 2018

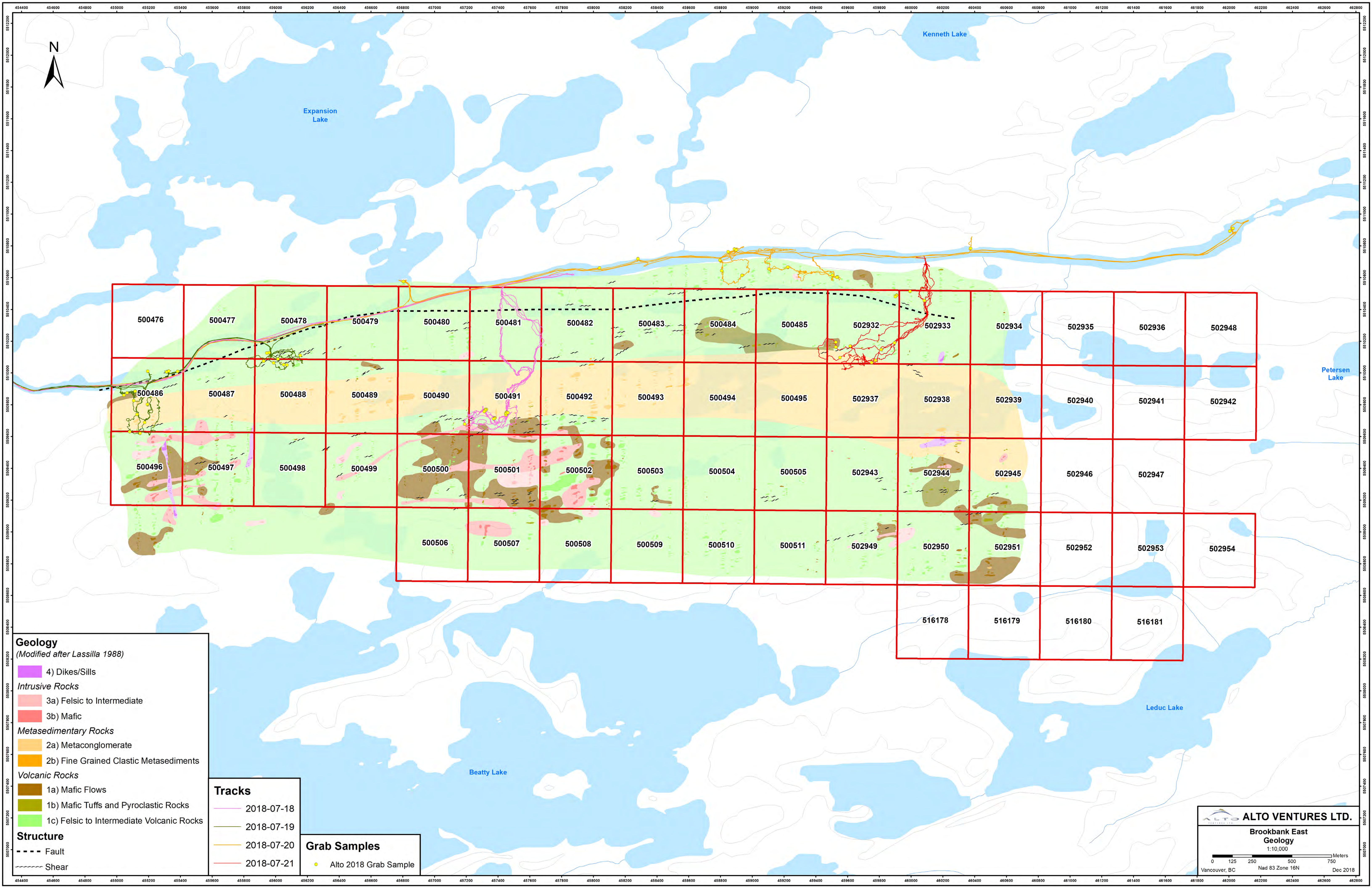
**ALTO** **VENTURES LTD.**  
Brookbank East  
Sample Locations & Results  
1:10,000  
0 125 250 500 750 Meters  
Vancouver, BC Nad 83 Zone 16N Dec 2018



**Tracks**

- 2018-07-18
- 2018-07-19
- 2018-07-20
- 2018-07-21

**ALTO VENTURES LTD.**  
ALTO VENTURES LTD.  
**Brookbank East  
Personnel GPS Tracks**  
1:10,000  
0 250 500 1,000 Meters  
Vancouver, BC Nad 83 Zone 16N Dec 2018



**Geology**  
(Modified after Lassilla 1988)

- 4) Dikes/Sills
- Intrusive Rocks**
- 3a) Felsic to Intermediate
- 3b) Mafic
- Metasedimentary Rocks**
- 2a) Metaconglomerate
- 2b) Fine Grained Clastic Metasediments
- Volcanic Rocks**
- 1a) Mafic Flows
- 1b) Mafic Tuffs and Pyroclastic Rocks
- 1c) Felsic to Intermediate Volcanic Rocks

**Tracks**

- 2018-07-18
- 2018-07-19
- 2018-07-20
- 2018-07-21

**Grab Samples**

- Alto 2018 Grab Sample

- Structure**
- Fault
  - Shear

**ALTO VENTURES LTD.**

**Brookbank East  
Geology**

1:10,000

0 125 250 500 750 Meters

Vancouver, BC Nad 83 Zone 16N Dec 2018