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ALTO VENTURES LTD.
MIUD LAKE PROJECT

REPORT ON THE 2018 AND 2019 SUMMER EXPLORATION PROGRAMS

ELMHIRST AND WALTERS TOWNSHIPS
THUNDER BAY MINING DISTRICT
ONTARIO
NTS 42E/13

Sudbury, Ontario
October 31, 2019

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SUMMARY

This report documents the 2018 and 2019 summer field programs completed by Alto Ventures on the Mud Lake project. The programs included surface glacial till sampling and prospecting. The till sampling was undertaken as follow up to results obtained from six glacial till samples that were collected in 2016 and processed in 2017. Because of their significance, these six samples are discussed in this report.

The Mud Lake property includes 182 contiguous single mining cell claims and boundary cell claims that were converted from historically ground staked mining claims. These claims are located in the Elmhirst and Walters townships, in the Thunder Bay Mining District, approximately 25 km northeast from Beardmore. The property is accessible all year by forestry roads.

In total, 40 glacial till samples were collected and processed for gold grain content at Overburden Drilling Management in Ottawa. The gold grains were classified as to their shapes using the nomenclature classification of reshaped, modified and pristine to represent respective distance of transport of the gold grains; with pristine grains representing the shortest distance transported.

Gold grains were recovered from 38 of the 40 samples, ranging in numbers from 2 grains to 429 when normalized to 10 kg Table Feed. Thirty seven of the samples contain one or more grains described as "pristine". Four samples contain over 50 gold grains each including numerous pristine grains; one sample collected in 2019 contains 429 gold grains of which almost 96% of the gold grains are described as pristine.

Samples which contain the higher gold grain counts appear to cluster near the southwest corner of the MLSZ where past exploration was limited only to trenching. The sample with the 429 gold grain counts was collected east from the MLSZ and near the newly discovered shear zone, suggesting there may be a gold bearing source in bedrock up ice from the sample site.

Prospecting northwest of the MLSZ located only one gold anomaly of 0.215 g/t Au in narrow quartz veinlets filling open fractures.

Prospecting to the east of the MLSZ has discovered a wide shear that trends parallel to sub-parallel to the MLSZ. The shear is over 50 m wide in some outcrops and the sheared rocks are strongly magnetic. The shear zone includes narrow bands containing discontinuous quartz micro-veinlets, pockets of silicification and locally contains total 1% sulphides, mainly pyrite and chalcopyrite. Samples from the shear zone returned generally low gold values with one weakly anomalous samples assaying and 0.011 g/t Au. The exposed shear in this area is on a flat outcrop that is easy to wash and should be saw-cut channel sampled.

Observations during the 2019 prospecting program have confirmed that the newly discovered shear zone is strongly magnetic and now it can be correlated to the northeast trending linear magnetic-high anomalies recognized from the modelling of historical airborne magnetic data, although the significance of the magnetite in the shear zone has not been determined yet.

The glacial till results have confirmed that till sampling is a useful exploration tool in this area and have indicated targets for further work up-ice from the anomalies near the southwest end of the MLSZ as well east of the MLSZ along the newly discovered shear zone.

Recommended work includes additional till sampling and detailed prospecting along the MLSZ and the new shear. Power-washing of the flat outcrop exposing the newly discovered shear zone is recommended followed by saw-cut channel sampling.

TABLE OF CONTENTS

SUMMARY

1.0 INTRODUCTION	1
1.1 Property	1
1.2 Location, Access, Infrastructure and Topography	2
2.0 GEOLOGY	3
2.1 Regional Geology	3
2.2 Property Geology and Mineralization	3
3.0 PREVIOUS WORK	4
4.0 ALTO'S SUMMER EXPLORATION PROGRAMS	5
4.1 Work Completed	5
4.2 Logistics and Sampling Procedures	5
4.3 Results	8
5.0 CONCLUSIONS AND RECOMMENDATIONS	12
6.0 REFERENCES	13
7.0 STATEMENT OF QUALIFICATIONS	15

List of Figures:

Figure 1: Mud Lake Property Location Map	1
Figure 2: Mud Lake Claims Map	2
Figure 3: Personnel GPS tracks (prospecting traverses)	6
Figure 4: Sample Locations	7
Figure 5: Till Results	9
Figure 6: Gold in Glacial Tills and Gold Occurrences	10

List of Tables

Table 1: Summary of significant assays from Alto's Mud Lake drilling	4
Table 2: Summary of gold grains in processed till samples, raw count and normalized to 10 kg Table Feed	11

List of Appendices

Appendix A: Mud Lake Claims List	
Appendix B: Glacial till ODM certificates of results, sample locations and descriptions	
Appendix C: ODM standard flow chart for gold grains	
Appendix D: Rock grab sample descriptions and assay certificates	
Appendix E: Geophysical interpretation	

1.0 INTRODUCTION

This report documents the 2018 and 2019 summer field programs completed by Alto Ventures on the Mud Lake project. The programs included surface glacial till sampling and prospecting. The till sampling was undertaken as follow up to results obtained from six glacial till samples that were collected in 2016 and processed in 2017. Because of their significance, these six samples are discussed in this report.

1.1 Property

The Mud Lake property includes 182 contiguous single mining cell claims and boundary cell claims that were converted from historically ground staked mining claims. These claims are located in the Elmhurst and Walters townships, in the Thunder Bay Mining District, and are covered by NTS map sheet 42E/13, UTM NAD83 Zone 16 (see in Figure 1). The property covers approximately 2,600 ha. Figure 2 illustrates the mining cell claims and boundary cell claims and a complete listing of these is provided in Appendix A.

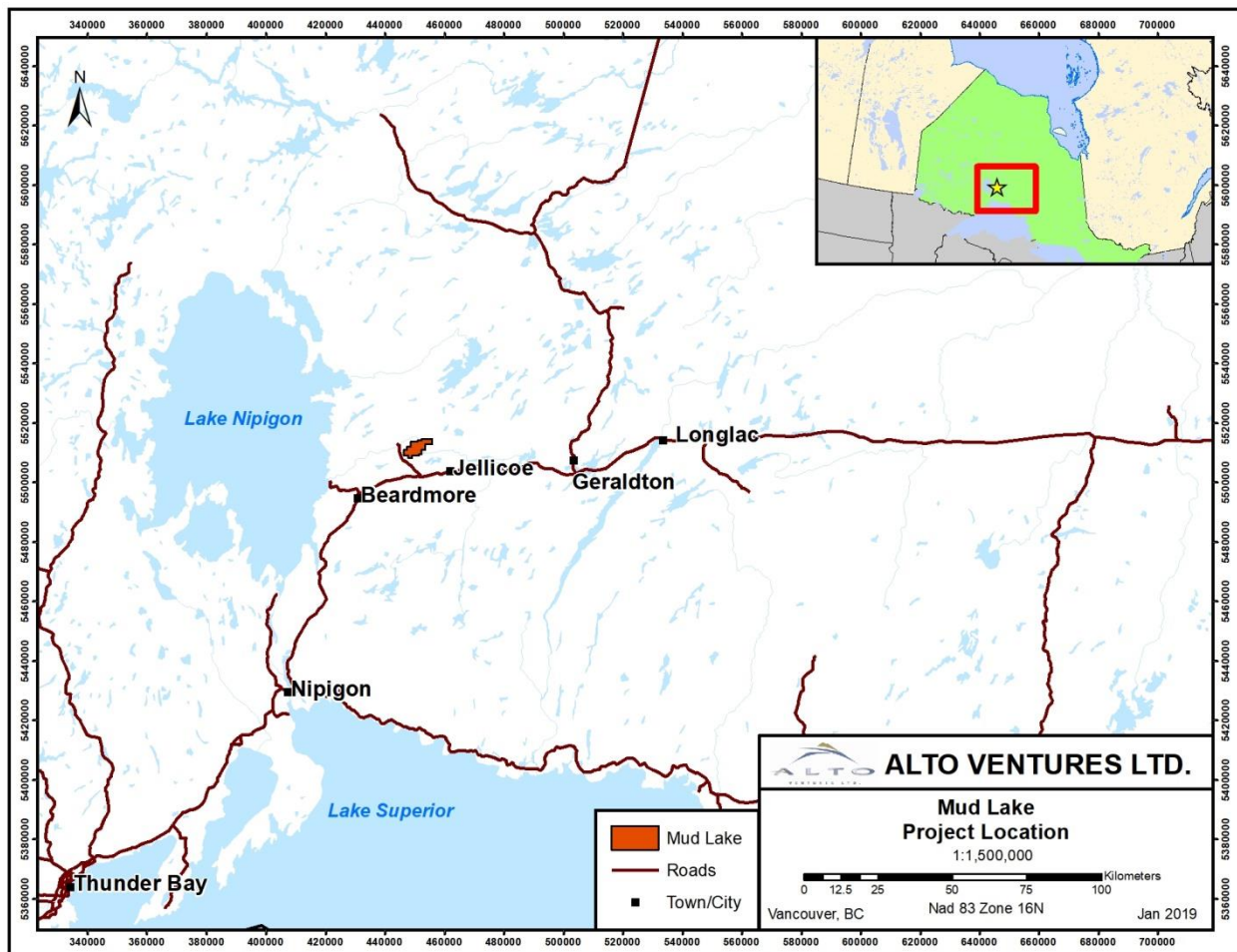


Figure 1 Mud Lake Property Location Map

The work described in this report was completed on claims 101913, 101971, 102054, 102057, 128892, 104710, 158179, 164174, 164205, 204037, 206998, 209486, 210204, 212132, 212133, 212135, 223625,

223661, 228316, 230897, 230936, 258214, 259590, 268239, 278153, 278154, 279628, 280280, 288822, 288823, 288824, 294439, 296959, 296960, 296961, 312730, 313323, and 326211.

1.2 Location, Access, Infrastructure and Topography

The property is located roughly 25 km northeast from the town of Beardmore. The Mud Lake claims can be reached by driving along the Trans-Canada highway (No. 11) for approximately 22 km east from Beardmore and turning onto 801 Road (formerly Ontario Tertiary Highway 801). The property is easily accessed by following the 801 road for approximately 10 kilometres northwest, then turning east onto a main logging access road. The main logging road runs northeast and traverses the entire property ending at the Namekaminikan (Sturgeon) River. From the main logging road, forestry roads provide access to a good portion of the property and several are still accessible by 4x4 truck.

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 more distant communities of Thunder Bay, Timmins and Sault Ste. Marie.

The topography on the property is characterized by a series of east to northeast trending bedrock ridges up to 25 m high that are separated by small lakes and creeks, swamps, ponds and muskeg filled valleys. Generally good bedrock exposures were created by clear-cut logging over large portions of the property and the logging also exposed a sandy basal till that is suitable for sampling for gold grain counts. On the ridge areas, this till is generally less than two metres in thickness.

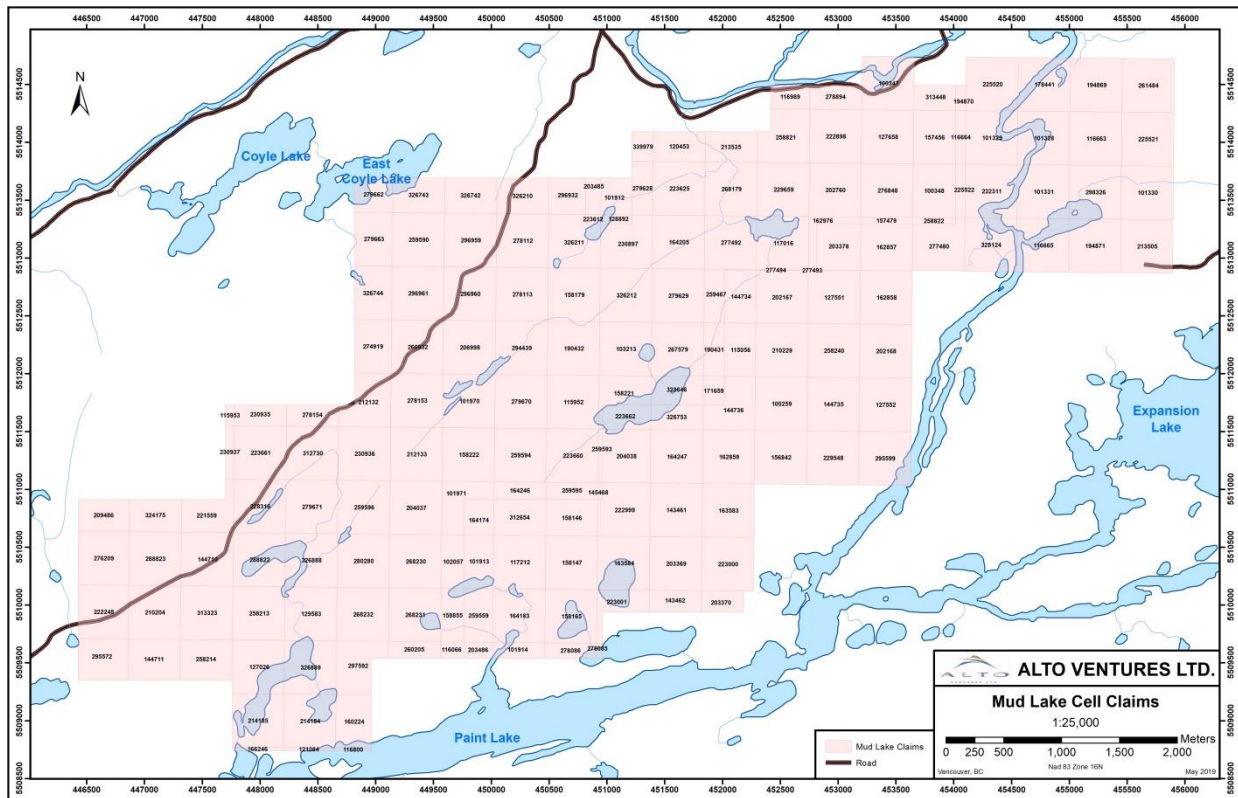


Figure 2 Mud Lake Claims Map

2.0 GEOLOGY

2.1 Regional Geology

The Mud Lake Property lies within the southern Wabigoon Subprovince of the Superior Province, specifically within the Onaman-Tashota greenstone belt (OTGB). The OTGB comprises several Mesoproterozoic to Neoproterozoic supracrustal assemblages dominated by mafic to felsic metavolcanic rocks with tholeiitic and calc-alkalic geochemical affinity (Stott et al., 2002). The property lies in the southern part of the OTGB which is dominated by calc-alkalic mafic to felsic igneous rocks of the Elmhirst–Rickaby assemblage (2735–2740 Ma) and it comprises one of the largest calc-alkaline volcanic packages currently recognized in the Archean (Stongman et al., 2018). The Elmhirst-Rickaby assemblage has been interpreted to have been emplaced in a continental margin–arc environment and is in fault contact with the Beardmore–Geraldton belt to the south (Stott et al. 2002).

The Beardmore–Geraldton belt is a greenstone belt that marks the transition between the dominantly igneous eastern Wabigoon Subprovince to the north and the dominantly metasedimentary Quetico Subprovince to the south. It consists of interleaved metavolcanic panels similar to the Onaman–Tashota greenstone belt, and metasedimentary rock panels similar to the metasedimentary rocks in the Quetico Subprovince (Devaney and Williams 1989). Its boundary with the OTGB to the north is the Paint Lake deformation zone and to the south the Bankfield–Tombill deformation zone. Both deformation zones are high-strain corridors several hundred metres wide, which were initiated as thrusts during D1 accretion and were reactivated during D2 sinistral and D3 dextral transpression (Lafrance et al., 2004; Tóth 2018).

2.2 Property Geology and Mineralization

The Mud Lake property lies mainly in the Elmhirst and Walters townships. Geological mapping of these townships was completed by Mackasey (1976) and Mackasey and Wallace (1978) for the Ontario Geological Survey. The property is underlain by the Coyle Lake Stock (CLS; Mackasey, 1976), occupying approximately 70% of the claim area, with the remaining geology dominantly composed of intermediate to felsic volcanic rocks, near the south and southeastern portions. The CLS is dominantly granodiorite to tonalite, medium grained and massive to porphyritic in places. At the contact with the surrounding volcanic rocks, the stock becomes more dioritic in composition, creating a boundary several metres in width. Structural patterns within the CLS show a dominant ENE to NE trend, with local displacement of E-W regional faults and lithology contacts.

The main gold bearing structure on the property is the northeast trending Mud Lake Shear Zone (MLSZ; Tremblay, 2005 and Tremblay et al., 2008) which transects the CLS. To date, there are 12 known surface gold occurrences associated with the northeast striking Mud Lake Shear Zone (MLSZ) which has been traced for six km on the property including showings No. 1, 2, 3, 4, 5 and Oliver Severn (Figure 2). The orientation of the shear changes near showing No. 6, becoming more WSW, and hosting the Clarke and South Trench showings. Gold is concentrated into quartz veins associated with the shearing.

Folding and brecciation locally thicken these veins, particularly at the Oliver Severn, No. 6 and Clarke showings. Mineralization is generally localized to the Mud Lake Shear zone, ranging from 1% to 5% disseminated pyrite and trace amounts of chalcopyrite. Locally, stronger sulphide concentrations ranges from 5% to 25%, occurring in millimeter to centimetre-thick siliceous bands usually occurring along the margins of the shearing, or in pods within the folded sections of the MLSZ. A later, N-NE trending fault system has been observed, striking dominantly north to 020°, which transects and locally displaces the MLSZ and related quartz veins in a sinistral direction.

3.0 PREVIOUS WORK

Early exploration on the property dates back to the 1930's, consisting of mainly prospecting, geological mapping, trenching, ground geophysics, soil and rock geochemistry and very limited diamond drilling. In particular to note are the two soil geochemical surveys carried out by Matagami Lake Mines Ltd (1980), and Noranda Exploration (1990) which resulted in a number of anomalous gold values, including 0.25 g/t reported by Noranda, and 0.20 g/t reported by Matagami.

In 2005, Alto Ventures completed a resistivity/induced polarization survey (Rivest, 2005) and a program of geological mapping and sampling in 2005 (Tremblay, 2005). A two phase drilling program that ran from 2007 into 2008 was completed by Alto Ventures, totaling 2,036 m in 30 holes (Tremblay et al., 2008). During the summer and fall of 2008 Alto Ventures drilled an additional 12 holes totalling 1009 m and completed mechanical stripping and sampling in seven areas of shearing (Koziol, 2010). The table below is a summary of significant assays from the Alto Ventures drilling programs.

Table 1 Summary of significant assays from Alto's Mud Lake drilling

Hole #	From (m)	To (m)	Width (m)	Au (g/t)	Zone
MUD07-01	15.1	16.1	1.0	0.99	Showing #6
MUD07-03	15.3	16.0	0.7	3.2	Showing #6
MUD07-06 includes	12.3	18.4	6.1	3.39	Oliver-Severn Zone 1
	14.9	15.4	0.5	9.64	
	17.4	18.4	1.0	13.97	
	28.6	29.6	1.0	5.56	Oliver-Severn Zone 2
MUD07-11	26.5	28.5	2.0	2.11	Clarke Zone 1
	51.5	53.2	1.7	2.35	Clarke Zone 2
MUD07-12 includes	80.0	88.8	8.0	0.94	Clarke
	82.8	84.8	2.0	2.16	
MUD07-14	19.0	21.0	2.0	2.12	Showing #3
MUD07-16	21.1	21.6	0.5	6.34	Showing #4
MUD07-17	23.7	24.7	1.0	3.77	Showing #4
MUD07-19	61.3	62.3	1.0	1.44	Showing #5
MUD08-22	36.6	37.6	1.0	7.25	Oliver Severn
MUD08-23	23.8	24.7	0.9	2.0	Oliver Severn
MUD08-24	19.0	21.0	2.0	1.21	Clarke Showing
MUD08-25	43.5	43.5	1.0	3.2	Clarke Showing

During the summer of 2009, Alto Ventures Ltd. completed additional work including geological mapping, prospecting and saw-cut channel sampling (Desjardins 2010).

4.0 ALTO'S SUMMER EXPLORATION PROGRAMS

4.1 Work Completed

2016 Work

Sampling of surface glacial tills was completed on July 27 and 28, 2016. Six till samples were collected and processed as an orientation survey to determine if the glacial tills are a useful exploration tool for detecting gold mineralization under the shallow overburden cover.

2018 Work

Sampling of surface glacial tills was completed at various times between July 23, 2018 and September 24, 2018 as follow up the 2016 program. Twenty four till samples were collected and processed from the 2018 sampling. The 2018 sampling was combined with a prospecting program

Prospecting was carried out in newly logged areas from July 17, 2018 to July 25, 2018. Forty two grab rock samples were collected and assayed for gold and analysed for 30 other elements. Approximately 28 line km were prospected. The bedrock geology that was newly exposed by logging was also mapped during the prospecting program to update the current map of the property.

2019 Work

Additional surface glacial till sampling was completed at various times between May 30, 2019 and June 22, 2019 to test new areas opened by recent logging activities east of the MLSZ. Ten till samples were collected and processed.

Prospecting was also carried out in the newly logged areas on May 31, 2019 and June 1, 2019. Ten grab bedrock samples were collected and assayed for gold and analysed for 30 other elements.

Reprocessing of Airborne Geophysical Data

Reprocessing of historical government and company airborne magnetometer data was completed in January 2018 by Alan King, P.Geo., of Geoscience North. Modelling of the data clearly identifies the northeast magnetic lineaments that are interpreted to be associated with the Mud lake Shear Zone. The geophysical interpretation of the modelling is presented in Appendix E.

4.2 Logistics and Sampling Procedures

Glacial till sampling in 2016 was completed by Mike Koziol on July 26 and July 27. This was an orientation survey to determine if there are areas of glacial till cover suitable for testing for glacial dispersion of gold grains. Access to the property was by four-wheel truck. The six samples collected in 2016 were processed at Overburden Drilling Management (ODM) in Ottawa in March, 2017.

The work in 2018 was completed to follow-up on the significant till anomaly that was obtained from the 2016 work in sample MUDT-006. The work included the collection and processing of 24 glacial till samples at various times from July 23, 2018 to September 24, 2018 by Mike Koziol and Richard Cote. The till samples collected in 2018 were processed at ODM in Ottawa. Alto also completed a prospecting program from July 17, 2018 to July 25, in areas that were recently opened by logging to the west of the MLSZ. During the course of prospecting, the crew also recorded geological information of the outcrops visited and sampled.

The prospecting was completed by Mike Koziol P. Geo., Richard Cote, Marko Bogdanovic and Nikolay Bashaev P. Geo. Approximately 28 total line km were prospecting during this period (Figure 3).

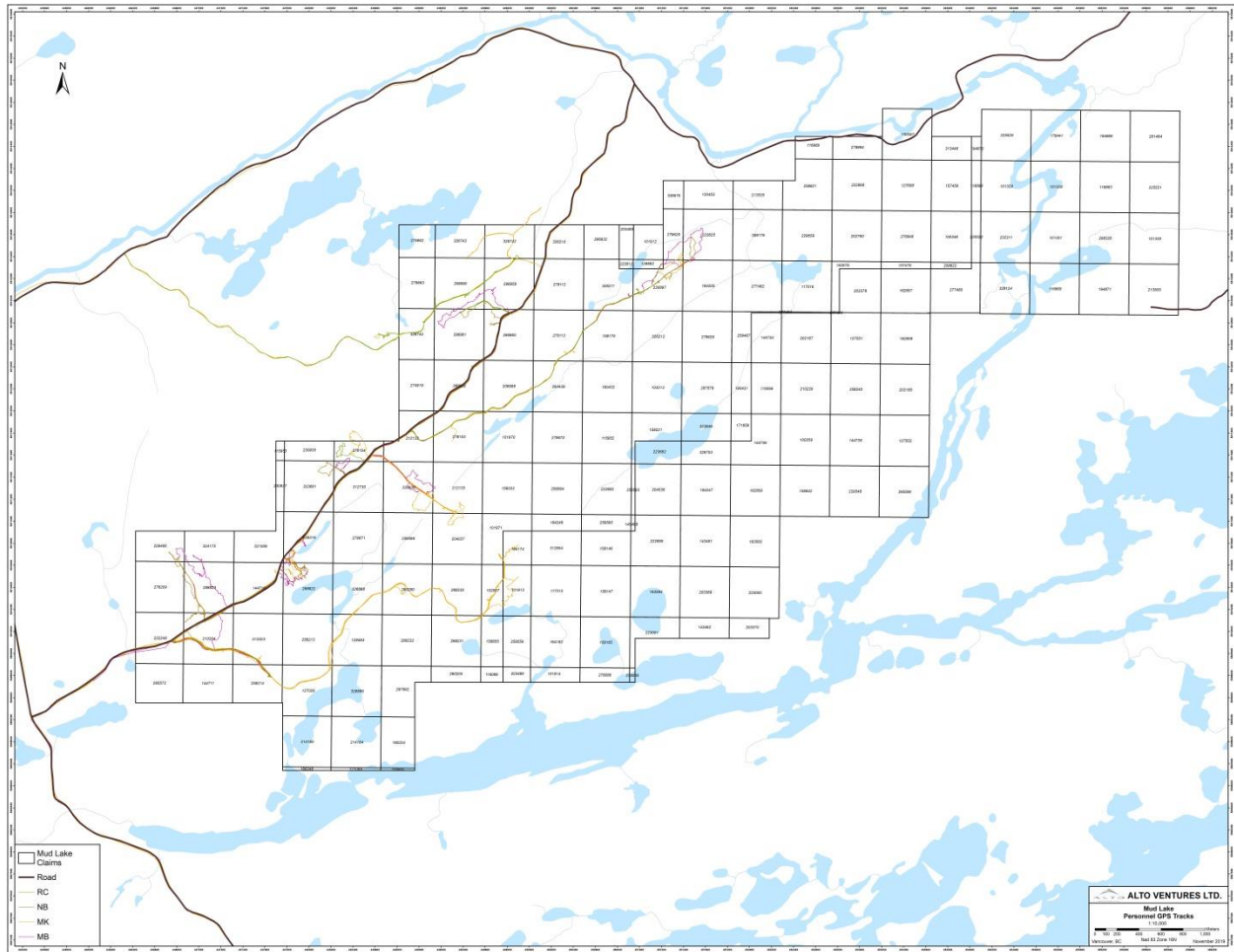


Figure 3 Personnel GPS tracks (prospecting traverse lines)

The 2019 work was completed to follow-up some results from the previous year’s work and to sample the eastern part of the property that was made easily accessible by logging that was completed in 2018. The work was completed intermittently from May 30, 2019 to June 22, 2019 by Mike Koziol and Richard Cote and included the collection and processing of 10 glacial till samples, four line km of prospecting and assaying of ten rock samples.

Till sampling and prospecting programs were carried out using four-wheel drive pickup trucks to access the property from Beardmore and to travel on the property. Accommodations for the crews for all of the programs were in Beardmore at the Roxy Place Motel.

The surficial geology in the general area of Mud Lake was mapped by Kristjansson et al., (1990) as a bedrock-drift complex with minor to moderate bedrock exposures occurring as bedrock knobs. The dominant ice flow direction in this area is 240° to 260° and the most abundant glacial deposits are thin till layers and other discontinuous glacial drift. Till is present at Mud Lake but is localized to proximity to outcrop areas and the till cover is generally thin except in areas filling topographic lows. In many locations the till is covered by thin layers of sand.

Till sampling sites were selected to provide cross sections across the Mud Lake Shear Zone down-ice from the currently known gold showings on the property. Till sample locations are plotted in Figure 4 and the UTM coordinates with corresponding sample numbers and sample descriptions are included in Appendix B. The sampling in most cases was completed by a two person crew that consisted of a geologist and a helper.

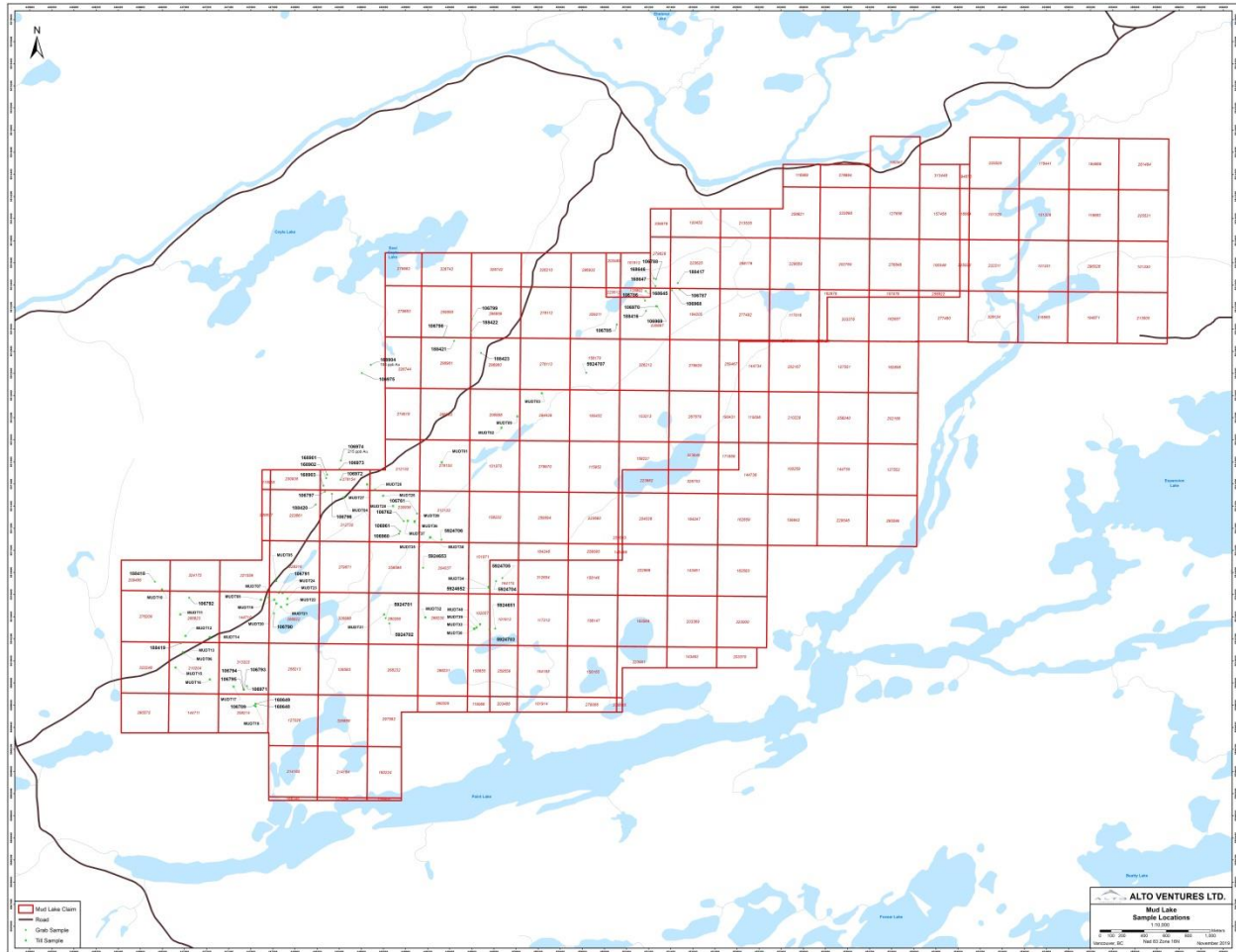


Figure 4 Sample Locations

Once a site with suitable till was found, the crew removed the organic layer and dug out material by hand shovel. The till was then shaken through a 6 mm square mesh screen at each site into a 5 gallon bucket to remove coarse pebbles and organic debris. The objective was to collect a nominal 10 kg field sample from each site but individual samples weights ranged from minimum 9.6 kg to maximum 16.7 kg when dry. During the June 2019 program some of the samples were quite wet and not practical to screen so heavier samples were taken including one that weight 28.4 kg unscreened to eventually produce 9.6 kg of Table feed. The field samples were then transferred into numbered plastic sample bags. Depths of sample pits ranged from 0.15 m to 1.5 m (along road cut).

A flag with the sample number was left tied to a nearby bush to mark the sample location as the deeper pits were backfilled. The sample was described on a paper sheet with a GPS waypoint recorded for each site.

The screened till samples were shipped for processing to (ODM) in Ottawa by Manitoulin Transport. The samples were processed as described in the flow chart included in Appendix C to determine the number of gold grains in each till sample and classify the grains (pristine, modified, reshaped) as to their relative distance of transport.

A total of 52 grab bedrock samples were collected during the 2018 and 2019 programs and analysed for gold and 30 other elements. The grab samples were delivered to AGAT laboratories in Thunder Bay. AGAT's Mining Geochemistry Laboratory is accredited to ISO 17025 by the Standards Council of Canada (SCC).

All samples are dried and crushed to 75% passing 10 mesh (2mm), split to 250g and pulverized to 85% passing 200 mesh (75 μ m), (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. The assay certificates, and sample locations and descriptions are included in Appendix D.

4.3 Results

Gold grains were recovered from 38 of the 40 samples processed ranging in numbers from 2 grains to 429 when normalized to 10 kg Table Feed (Table 2). Thirty seven of the samples contain one or more grains described as "pristine". Pristine grains are delicate pieces of free gold that are generally interpreted to have been derived from sources close to the sampling sites. Four samples contain over 50 gold grains each including numerous pristine grains; one sample collected in 2019 contains 429 gold grains of which almost 96% of the gold grains are described as pristine.

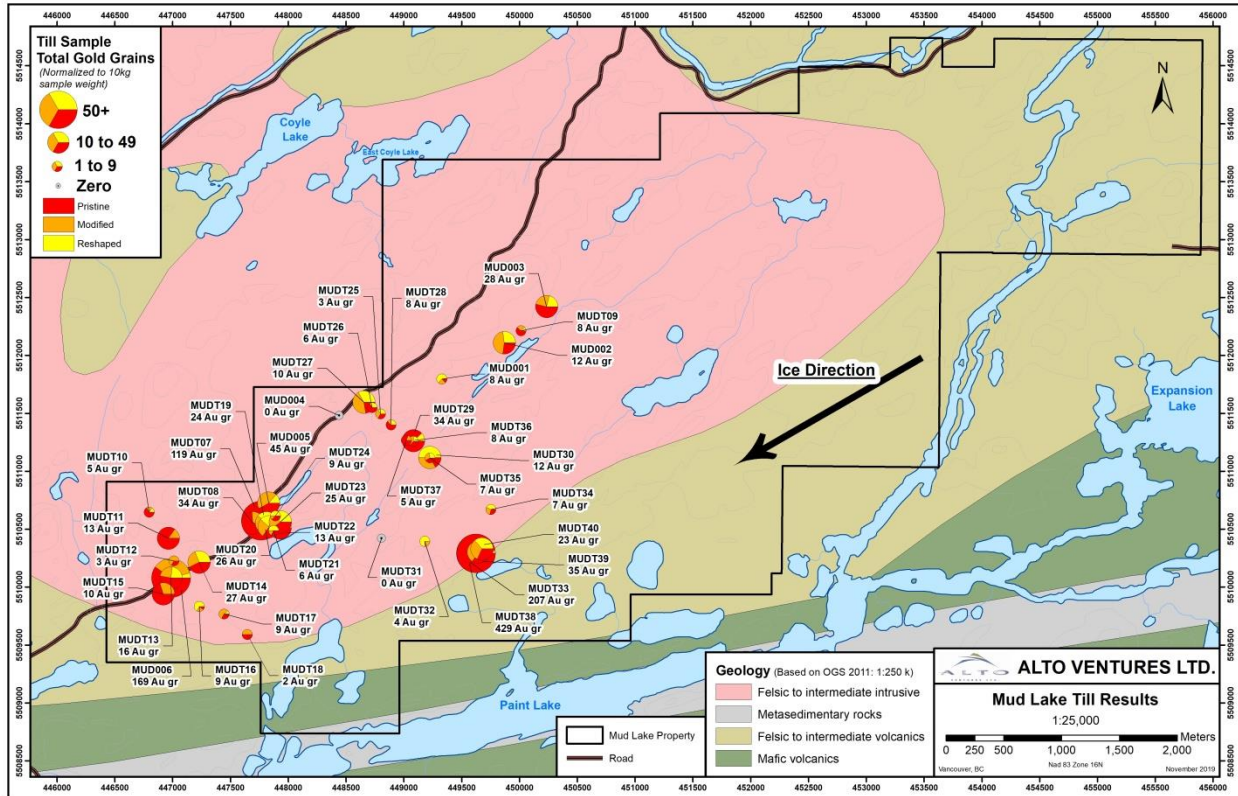


Figure 5 Till results

Till samples which contain the higher gold grain counts appear to cluster near the southwest corner of the property and bring focus to the southwest end of MLSZ where past exploration was limited only to trenching. The 2019 sample with the 429 gold grain counts was collected east from the MLSZ and near the newly discovered shear zone, suggesting there may be a gold bearing source in bedrock up ice from the sample site (Figure 5).

Prospecting in 2018 concentrated in a newly logged area to the west-northwest of the MLSZ (Figure 3). In total, 45 bedrock samples were collected and all returned relative low gold assays, generally less than 0.01g/t Au except one sample that assayed 0.215 g/t Au (sample 106974). This sample is from massive, medium grained, jointed granodiorite with white and rose quartz veins filling three of the joints within a 5m wide area. The veins strike at 270°/80N and are from 5cm to 15cm wide and locally contain 2% chalcopyrite in vugs.

Prospecting in 2019 discovered a major shear zone straddling the southeastern contact between the felsic Coyle Lake Intrusive and the intermediate metavolcanic rocks and trending parallel to sub-parallel to the MLSZ (Figure 6). Very little exploration work has been completed to explore this newly discovered shear zone, but it was observed in some outcrop areas that the shear zone is over 50 m wide.

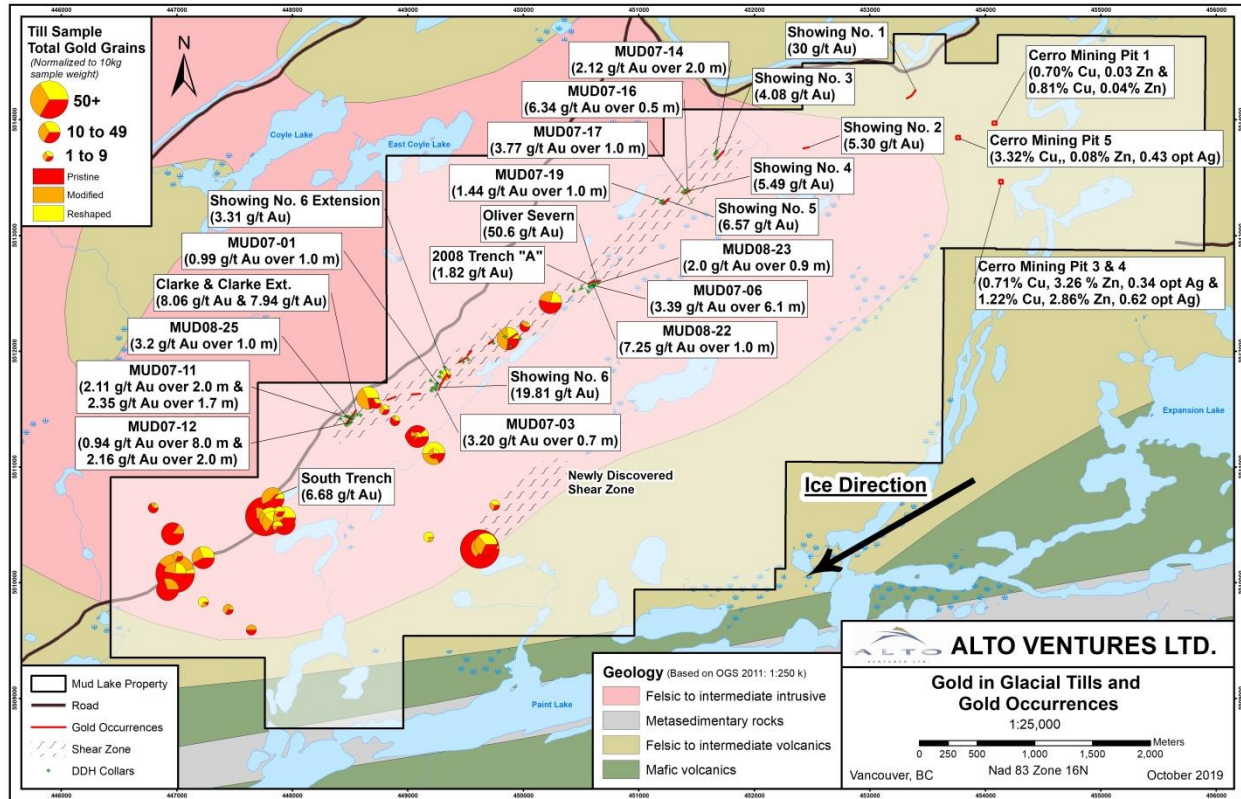


Figure 6 Gold in Glacial Tills and Gold Occurrences

Three grab samples were collected in the area of the newly discovered shear zone. They returned generally low gold values with one weakly anomalous samples assaying 0.011 g/t Au (sample 5924705). The samples are from the shear zone which strikes at 220° and dips close to vertical to 80°W. The sheared rocks are strongly magnetic and the shear zone includes narrow bands containing discontinuous quartz micro-veinlets and pockets of silicification. The shear locally contains total 1% sulphides, mainly pyrite and chalcopyrite. This outcrop is flat and easy to wash and should be saw-cut channel sampled.

Sample 5924651 was collected from east of the newly discovered shear zone. The sample is of sheared intermediate fragmental volcanic rock containing few micro-veinlets of quartz-carbonate. It assayed 0.028 g/t Au. The sheared rock strikes at 240°/80° SE, subparallel to the newly discovered shear zone.

One grab sample (4924707) was taken from the historical Oliver Severn Showing. The sample was of quartz vein containing 10% chalcopyrite and 10% coarse pyrite. However, the gold assay returned only 0.080 g/t Au.

Table 2 Summary of Gold Grains in Processed Till Samples, Raw Count and Normalized to 10 kg Table Feed

Sample #	Easting	Northing	Table Feed (kg)	Gold Grains (Raw count)	Gold Grains (Normalized to 10 kg)	% Pristine Gold Grains
MUD001	449328	5511795	8.8	7	8	14
MUD002	449868	5512109	14.7	17	12	29
MUD003	450234	5512421	12.4	35	28	51
MUD004	448441	5511480	12.7	0	0	0
MUD005	447830	5510724	13.7	61	45	43
MUD006	446985	5510078	13.7	231	169	60
MUD-07-18	447763	5510573	13.9	166	119	92
MUD-08-18	447693	5510553	14.2	48	34	75
MUD-09-18	450011	5512214	9.9	8	8	62
MUD-10-18	446796	5510646	13.2	7	5	71
MUD-11-18	446962	5510421	11.7	15	13	87
MUD-12-18	447009	5510226	12.1	4	3	25
MUD-13-18	446985	5510078	13.7	22	16	54
MUD-14-18	447227	5510215	13.1	35	27	43
MUD-15-18	446920	5509940	10.4	10	10	70
MUD-16-18	447230	5509832	11.6	10	9	10
MUD-17-18	447444	5509767	9.8	9	9	33
MUD-18-18	447644	5509591	11.2	2	2	50
MUDT-19	447812	5510554	9.7	23	23	35
MUDT-20	447832	5510520	8.9	23	26	35
MUDT021	447873	5510488	9.6	6	6	33
MUDT-22	447928	5510511	8.5	11	13	36
MUDT-23	447931	5510562	9.9	25	25	40
MUDT-24	447888	5510614	9.0	8	9	37
MUDT-25	448797	5511494	10.3	3	3	33
MUDT-26	448724	5511549	10.0	6	6	67
MUDT-27	448653	5511597	9.4	9	9	22
MUDT-28	448888	5411400	8.4	7	8	57
MUDT-29	449082	5511263	5.0	17	34	88
MUDT-30	449223	5511118	10.3	12	12	16
MUDT-31	448806	5510420	16.2	0	0	0
MUDT-32	449180	5510394	13.7	6	4	0
MUDT-33	449622	5510291	114.5	300	207	95
MUDT-34	449752	5510669	12.4	9	7	33
MUDT-35	449225	5511115	12.1	9	7	44
MUDT-36	449081	5511258	10.6	8	8	37
MUDT-37	449021	5511267	9.6	5	5	80
MUDT-38	449624	5510290	10.6	455	429	96

MUDT-39	449644	5510302	12.5	44	35	34
MUDT-40	449675	5510330	9.6	22	23	32

5.0 CONCLUSIONS AND RECOMMENDATIONS

Surface glacial till sampling and prospecting programs were completed on the Mud Lake property at various times during the summer of 2018 and 2019 as follow-up to successful till sampling orientation program completed in June 2016. In total, 40 glacial till samples were collected and processed for gold grain content at Overburden Drilling Management in Ottawa. The gold grains were classified as to their shapes using the nomenclature classification of reshaped, modified and pristine to represent respective distance of transport of the gold grains; with pristine grains representing the shortest distance transported.

Gold grains were recovered from 38 of the 40 samples, ranging in numbers from 2 grains to 429 when normalized to 10 kg Table Feed. Thirty seven of the samples contain one or more grains described as "pristine". Four samples contain over 50 gold grains each including numerous pristine grains; one sample collected in 2019 contains 429 gold grains of which almost 96% of the gold grains are described as pristine.

Samples which contain the higher gold grain counts appear to cluster near the southwest corner of the MLSZ where past exploration was limited only to trenching. The sample with the 429 gold grain counts was collected east from the MLSZ and near the newly discovered shear zone, suggesting there may be a gold bearing source in bedrock up ice from the sample site.

Prospecting northwest of the MLSZ located only one gold anomaly of 0.215 g/t Au in narrow quartz veinlets filling open fractures.

Prospecting to the east of the MLSZ has discovered a wide shear that trends parallel to sub-parallel to the MLSZ. The shear is over 50 m wide in some outcrops and the sheared rocks are strongly magnetic. The shear zone includes narrow bands containing discontinuous quartz micro-veinlets, pockets of silicification and locally contains total 1% sulphides, mainly pyrite and chalcopyrite. Samples from the shear zones returned generally low gold values with one weakly anomalous samples assaying 0.011 g/t Au. The exposed shear in this area is on a flat outcrop that is easy to wash and should be saw-cut channel sampled.

Sheared intermediate fragmental volcanic rock from east of the new shear zone assayed 0.028 g/t Au.

Observations during the 2019 prospecting program have confirmed that the newly discovered shear zone is strongly magnetic and now it can be correlated to the northeast trending linear magnetic-high anomalies recognized from the modelling of historical airborne magnetic data, although the significance of the magnetite in the shear zone has not been determined yet.

The glacial till results have confirmed that till sampling is a useful exploration tool in this area and have indicated targets for further work up-ice from the anomalies near the southwest end of the MLSZ as well east of the MLSZ along the newly discovered shear zone. Recommended work includes additional till sampling and detailed prospecting along the MLSZ and the new shear. Power-washing of the flat outcrop exposing the newly discovered shear zone is recommended followed by saw-cut channel sampling.

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 Mud Lake Property and supervised the programs 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 31st of October, 2018



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

APPENDIX A
MUD LAKE CLAIMS LIST

Township / Area	Cell Tenure ID	Tenure Type	Anniversary Date	Work Required
ELMHIRST	101970	Single Cell Claim	2020-08-09	400
ELMHIRST	206998	Single Cell Claim	2020-08-09	400
ELMHIRST	212132	Boundary Cell Claim	2020-04-29	200
ELMHIRST	266932	Single Cell Claim	2020-04-29	400
ELMHIRST	274919	Boundary Cell Claim	2020-04-29	200
ELMHIRST	278153	Single Cell Claim	2020-04-29	400
ELMHIRST	296960	Single Cell Claim	2020-08-09	400
ELMHIRST	296961	Single Cell Claim	2020-08-09	400
ELMHIRST	326744	Boundary Cell Claim	2020-08-09	200
WALTERS	279671	Single Cell Claim	2020-08-09	400
WALTERS	259596	Single Cell Claim	2020-08-09	400
WALTERS	259595	Boundary Cell Claim	2020-12-04	200
WALTERS	228316	Single Cell Claim	2020-08-09	400
WALTERS	221559	Boundary Cell Claim	2020-08-09	200
WALTERS	204037	Single Cell Claim	2020-08-09	400
WALTERS	164246	Boundary Cell Claim	2020-12-04	200
WALTERS	145468	Boundary Cell Claim	2020-12-04	200
WALTERS	101971	Boundary Cell Claim	2020-08-09	200
ELMHIRST,WALTERS	312730	Single Cell Claim	2020-12-04	400
ELMHIRST,WALTERS	259594	Single Cell Claim	2020-12-04	400
ELMHIRST,WALTERS	259593	Boundary Cell Claim	2020-12-04	200
ELMHIRST,WALTERS	230937	Boundary Cell Claim	2020-12-04	200
ELMHIRST,WALTERS	230936	Single Cell Claim	2020-12-04	400
ELMHIRST,WALTERS	223661	Single Cell Claim	2020-12-04	400
ELMHIRST,WALTERS	223660	Single Cell Claim	2020-12-04	400
ELMHIRST,WALTERS	212133	Single Cell Claim	2020-12-04	400
ELMHIRST,WALTERS	158222	Single Cell Claim	2020-12-04	400
ELMHIRST	115952	Single Cell Claim	2020-08-09	400
ELMHIRST	115953	Boundary Cell Claim	2020-12-04	200
ELMHIRST	158221	Boundary Cell Claim	2020-08-09	200
ELMHIRST	230935	Boundary Cell Claim	2020-12-04	200
ELMHIRST	278154	Boundary Cell Claim	2020-12-04	200
ELMHIRST	279670	Single Cell Claim	2020-08-09	400
ELMHIRST	164205	Single Cell Claim	2020-06-09	400
ELMHIRST	223625	Single Cell Claim	2020-06-09	400
ELMHIRST	259467	Boundary Cell Claim	2020-08-09	200
ELMHIRST	268179	Single Cell Claim	2020-08-11	400
ELMHIRST	277492	Single Cell Claim	2020-08-11	400
ELMHIRST	279629	Single Cell Claim	2020-08-09	400
ELMHIRST	158179	Single Cell Claim	2020-08-09	400
ELMHIRST	230897	Boundary Cell Claim	2020-06-09	200
ELMHIRST	278112	Single Cell Claim	2020-08-09	400
ELMHIRST	278113	Single Cell Claim	2020-08-09	400

ELMHIRST	279628	Boundary Cell Claim	2020-06-09	200
ELMHIRST	296932	Boundary Cell Claim	2020-06-09	200
ELMHIRST	326210	Boundary Cell Claim	2020-08-09	200
ELMHIRST	326211	Boundary Cell Claim	2020-06-09	200
ELMHIRST	326212	Single Cell Claim	2020-08-09	400
ELMHIRST	120453	Boundary Cell Claim	2020-06-09	200
ELMHIRST	213535	Boundary Cell Claim	2020-06-09	200
ELMHIRST	229659	Single Cell Claim	2020-08-11	400
ELMHIRST	258821	Boundary Cell Claim	2020-08-06	200
ELMHIRST	339979	Boundary Cell Claim	2020-06-09	200
ELMHIRST	100347	Single Cell Claim	2020-08-06	400
ELMHIRST	100348	Boundary Cell Claim	2020-08-06	200
ELMHIRST	116989	Boundary Cell Claim	2020-08-06	200
ELMHIRST	117016	Single Cell Claim	2020-08-11	400
ELMHIRST	127658	Single Cell Claim	2020-08-06	400
ELMHIRST	157456	Boundary Cell Claim	2020-08-06	200
ELMHIRST	157479	Boundary Cell Claim	2020-08-06	200
ELMHIRST	162976	Boundary Cell Claim	2020-08-06	200
ELMHIRST	202760	Single Cell Claim	2020-08-06	400
ELMHIRST	222898	Single Cell Claim	2020-08-06	400
ELMHIRST	258822	Boundary Cell Claim	2020-08-06	200
ELMHIRST	276848	Single Cell Claim	2020-08-06	400
ELMHIRST	278894	Boundary Cell Claim	2020-08-06	200
ELMHIRST	313448	Boundary Cell Claim	2020-08-06	200
ELMHIRST	277493	Boundary Cell Claim	2020-05-08	200
ELMHIRST	277494	Boundary Cell Claim	2020-05-08	200
WALTERS	127026	Boundary Cell Claim	2020-08-09	200
WALTERS	324175	Boundary Cell Claim	2020-08-09	200
WALTERS	313323	Single Cell Claim	2020-08-09	400
WALTERS	295572	Boundary Cell Claim	2020-08-09	200
WALTERS	288823	Single Cell Claim	2020-08-09	400
WALTERS	288822	Single Cell Claim	2020-08-09	400
WALTERS	276209	Boundary Cell Claim	2020-08-09	200
WALTERS	258214	Boundary Cell Claim	2020-08-09	200
WALTERS	258213	Single Cell Claim	2020-08-09	400
WALTERS	222248	Boundary Cell Claim	2020-08-09	200
WALTERS	210204	Single Cell Claim	2020-08-09	400
WALTERS	209486	Boundary Cell Claim	2020-08-09	200
WALTERS	144711	Boundary Cell Claim	2020-08-09	200
WALTERS	144710	Single Cell Claim	2020-08-09	400
WALTERS	326889	Single Cell Claim	2020-08-09	400
WALTERS	326888	Single Cell Claim	2020-08-09	400
WALTERS	297592	Boundary Cell Claim	2020-08-09	200
WALTERS	280280	Single Cell Claim	2020-08-09	400
WALTERS	268232	Single Cell Claim	2020-08-09	400

WALTERS	268231	Single Cell Claim	2020-08-09	400
WALTERS	268230	Single Cell Claim	2020-08-09	400
WALTERS	260205	Boundary Cell Claim	2020-08-09	200
WALTERS	158855	Boundary Cell Claim	2020-08-09	200
WALTERS	129583	Single Cell Claim	2020-08-09	400
WALTERS	116066	Boundary Cell Claim	2020-08-09	200
WALTERS	102057	Boundary Cell Claim	2020-08-09	200
WALTERS	116800	Boundary Cell Claim	2020-08-09	200
WALTERS	214185	Boundary Cell Claim	2020-08-09	200
WALTERS	214184	Single Cell Claim	2020-08-09	400
WALTERS	166246	Boundary Cell Claim	2020-08-09	200
WALTERS	160224	Boundary Cell Claim	2020-08-09	200
WALTERS	121084	Boundary Cell Claim	2020-08-09	200
ELMHIRST	103213	Single Cell Claim	2020-08-09	400
ELMHIRST	171659	Boundary Cell Claim	2020-08-09	200
ELMHIRST	190431	Boundary Cell Claim	2020-08-09	200
ELMHIRST	190432	Single Cell Claim	2020-08-09	400
ELMHIRST	267579	Single Cell Claim	2020-08-09	400
ELMHIRST	294439	Single Cell Claim	2020-08-09	400
ELMHIRST	323646	Boundary Cell Claim	2020-08-09	200
ELMHIRST	259590	Single Cell Claim	2020-08-09	400
ELMHIRST	279662	Boundary Cell Claim	2020-08-09	200
ELMHIRST	279663	Boundary Cell Claim	2020-08-09	200
ELMHIRST	296959	Single Cell Claim	2020-08-09	400
ELMHIRST	326742	Boundary Cell Claim	2020-08-09	200
ELMHIRST	326743	Boundary Cell Claim	2020-08-09	200
ELMHIRST	101912	Boundary Cell Claim	2020-08-09	200
ELMHIRST	128892	Boundary Cell Claim	2020-08-09	200
ELMHIRST	203485	Boundary Cell Claim	2020-08-09	200
ELMHIRST	223612	Boundary Cell Claim	2020-08-09	200
ELMHIRST	100259	Single Cell Claim	2020-10-13	400
ELMHIRST,WALTERS	295599	Single Cell Claim	2020-10-13	400
ELMHIRST,WALTERS	229548	Single Cell Claim	2020-10-13	400
ELMHIRST,WALTERS	162859	Single Cell Claim	2020-10-13	400
ELMHIRST,WALTERS	156842	Single Cell Claim	2020-10-13	400
ELMHIRST	115056	Boundary Cell Claim	2020-10-13	200
ELMHIRST	127551	Boundary Cell Claim	2020-10-13	200
ELMHIRST	127552	Single Cell Claim	2020-10-13	400
ELMHIRST	144734	Boundary Cell Claim	2020-10-13	200
ELMHIRST	144735	Single Cell Claim	2020-10-13	400
ELMHIRST	144736	Boundary Cell Claim	2020-10-13	200
ELMHIRST	162857	Boundary Cell Claim	2020-10-13	200
ELMHIRST	162858	Single Cell Claim	2020-10-13	400
ELMHIRST	202167	Boundary Cell Claim	2020-10-13	200
ELMHIRST	202168	Single Cell Claim	2020-10-13	400

ELMHIRST	210229	Single Cell Claim	2020-10-13	400
ELMHIRST	258240	Single Cell Claim	2020-10-13	400
ELMHIRST	203378	Boundary Cell Claim	2020-10-05	200
ELMHIRST	277480	Boundary Cell Claim	2020-10-05	200
ELMHIRST	101329	Single Cell Claim	2020-10-05	400
RICKABY	298326	Single Cell Claim	2020-10-05	400
RICKABY	261484	Single Cell Claim	2020-10-05	400
RICKABY	225521	Single Cell Claim	2020-10-05	400
RICKABY	213505	Single Cell Claim	2020-10-05	400
RICKABY	194871	Single Cell Claim	2020-10-05	400
RICKABY	194869	Single Cell Claim	2020-10-05	400
RICKABY	116663	Single Cell Claim	2020-10-05	400
RICKABY	101330	Single Cell Claim	2020-10-05	400
ELMHIRST,RICKABY	178441	Single Cell Claim	2020-10-05	400
ELMHIRST,RICKABY	116665	Single Cell Claim	2020-10-05	400
ELMHIRST,RICKABY	101331	Single Cell Claim	2020-10-05	400
ELMHIRST,RICKABY	101328	Single Cell Claim	2020-10-05	400
ELMHIRST	116664	Boundary Cell Claim	2020-10-05	200
ELMHIRST	194870	Boundary Cell Claim	2020-10-05	200
ELMHIRST	225520	Single Cell Claim	2020-10-05	400
ELMHIRST	225522	Boundary Cell Claim	2020-10-05	200
ELMHIRST	232311	Single Cell Claim	2020-10-05	400
ELMHIRST	328124	Single Cell Claim	2020-10-05	400
WALTERS	101913	Boundary Cell Claim	2020-04-19	200
WALTERS	312654	Boundary Cell Claim	2020-04-19	200
WALTERS	278086	Boundary Cell Claim	2020-04-19	200
WALTERS	278085	Boundary Cell Claim	2020-04-19	200
WALTERS	259559	Boundary Cell Claim	2020-04-19	200
WALTERS	223001	Boundary Cell Claim	2020-04-19	200
WALTERS	222999	Boundary Cell Claim	2020-04-19	200
WALTERS	203486	Boundary Cell Claim	2020-04-19	200
WALTERS	164183	Single Cell Claim	2020-04-19	400
WALTERS	164174	Boundary Cell Claim	2020-04-19	200
WALTERS	163584	Single Cell Claim	2020-04-19	400
WALTERS	158165	Single Cell Claim	2020-04-19	400
WALTERS	158147	Single Cell Claim	2020-04-19	400
WALTERS	158146	Boundary Cell Claim	2020-04-19	200
WALTERS	117212	Single Cell Claim	2020-04-19	400
WALTERS	101914	Boundary Cell Claim	2020-04-19	200
WALTERS	163583	Single Cell Claim	2020-04-19	400
WALTERS	143461	Single Cell Claim	2020-04-19	400
ELMHIRST,WALTERS	204038	Boundary Cell Claim	2020-04-19	200
ELMHIRST,WALTERS	164247	Single Cell Claim	2020-04-19	400
ELMHIRST	223662	Boundary Cell Claim	2020-04-19	200
ELMHIRST	326753	Boundary Cell Claim	2020-04-19	200

WALTERS	223000	Single Cell Claim	2020-04-19	400
WALTERS	203370	Boundary Cell Claim	2020-04-19	200
WALTERS	203369	Single Cell Claim	2020-04-19	400
WALTERS	143462	Boundary Cell Claim	2020-04-19	200
total cells	182			

APPENDIX B

**GLACIAL TILL ODM CERTIFICATES OF RESULTS, SAMPLE LOCATIONS AND
DESCRIPTIONS**



Overburden Drilling Management Limited
Unit 107, 15 Capella Court
Nepean, Ontario, Canada, K2E 7X1
Tel: (613) 226-1771 Fax: (613) 226-8753
odm@storm.ca www.odm.ca

Laboratory Data Report

Client Information

Alto Ventures Ltd.
Unit 7 -1351 C Kelly Lake Road
Sudbury, On
P3E 5P5

koziol@altoventures.com

Attention: Mark Koziol

Data-File Information

Date: March 28, 2017
Project name:

ODM batch number: 7438
Sample numbers: MUD001 to MUD006
Data file: 20177429 - Alto Ventures - Koziol - (MUD) - 6 for KIM - March 2017

Number of samples in this report: 6
Number of samples processed to date: 6
Total number of samples in project: 6

Preliminary data:
Final data:
Revised data:

<input type="checkbox"/>
<input checked="" type="checkbox"/>
<input type="checkbox"/>

Now includes KIM data.

Sample Processing Specifications

1. Submitted by client: Glacial till samples prescreened to -4.0 mm in the field.
2. One ±300 g archival split taken from each sample.
3. All samples panned for gold, PGMs and fine-grained metallic indicator minerals.
4. Heavy liquid separation specific gravity: 3.20.
5. 0.25-2.0 mm nonferromagnetic heavy mineral fraction picked for indicator minerals.

Notes

Remy Huneault, P. Geo.
President

Primary Sample Processing Weights and Descriptions

Client: Alto Ventures Ltd.
 File Name: 20177429 - Alto Ventures - Koziol - (MUD) - 6 for KIM - March 2017
 Total Number of Samples in this Report: 6
 ODM Batch Number(s): 7438

Sample Number	Weight (kg wet)						Screening and Shaking Table Sample Descriptions													
	Bulk Rec'd	Archived Split	Table Split	+2.0 mm Clasts*	Table Feed	Size	Clasts (+2.0 mm)*				Matrix (-2.0 mm)						Colour		Class	
							Percentage				Distribution									
							V/S	GR	LS	QT	S/U	SD	ST	CY	ORG	SD	CY			
MUD001	9.6	0.3	9.3	0.5	8.8	G	35	65	0	0	U	+	Y	-	N	OC	OC	TILL		
MUD002	15.9	0.3	15.6	0.9	14.7	G	40	60	0	0	U	+	Y	-	N	OC	OC	TILL		
MUD003	14.0	0.3	13.7	1.3	12.4	G	40	60	0	0	U	+	Y	-	N	OC	OC	TILL		
MUD004	13.8	0.3	13.5	0.8	12.7	G	20	80	0	0	U	+	Y	-	N	OC	OC	TILL		
MUD005	15.9	0.3	15.6	1.9	13.7	G	40	60	0	0	U	+	Y	-	N	OC	OC	TILL		
MUD006	14.5	0.3	14.2	0.5	13.7	G	30	70	0	0	U	+	Y	-	N	OC	OC	TILL		

*Samples prescreened to -4.0 mm in the field.

Gold Grain Summary

Client: Alto Ventures Ltd.

File Name: 20177429 - Alto Ventures - Koziol - (MUD) - 6 for KIM - March 2017

Total Number of Samples in this Report: 6

ODM Batch Number(s): 7438

Sample Number	Number of Visible Gold Grains				Nonmag HMC Weight (g)*	Calculated PPB Visible Gold in HMC			
	Total	Reshaped	Modified	Pristine		Total	Reshaped	Modified	Pristine
MUD001	7	4	2	1	35.2	46	4	<1	43
MUD002	17	4	8	5	58.8	55	36	8	11
MUD003	35	8	9	18	49.6	456	96	334	26
MUD004	0	0	0	0	50.8	0	0	0	0
MUD005	61	8	27	26	54.8	99	6	67	26
MUD006	231	10	83	138	54.8	305	16	88	201

* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 1/250th of the table feed.

Detailed Gold Grain Data

Client: Alto Ventures Ltd.

File Name: 20177429 - Alto Ventures - Koziol - (MUD) - 6 for KIM - March 2017

Total Number of Samples in this Report: 6

ODM Batch Number(s): 7438

Sample Number	Dimensions (µm)			Number of Visible Gold Grains				Nonmag HMC Weight* (g)	Calculated V.G. Assay in HMC (ppb)	Metallic Minerals in Pan Concentrate
	Thickness	Width	Length	Reshaped	Modified	Pristine	Total			
MUD001	3	C	15	15	1	2		3	<1	No sulphides.
	5	C	25	25	2			2	1	
	8	C	25	50	1			1	2	
	20	C	100	100			1	1	43	
								<u>7</u>	35.2	<u>47</u>
MUD002	3	C	15	15		3	1	4	<1	1 grain cinnabar (25µm).
	5	C	25	25		3	1	4	2	
	8	C	25	50	1			2	2	
	10	C	50	50	1	2	1	4	13	
	13	C	50	75	1		1	2	12	
	20	C	100	100	1			1	26	
								<u>17</u>	58.8	<u>55</u>
MUD003	3	C	15	15	2	1	3	6	1	No sulphides.
	5	C	25	25	2	3	6	11	5	
	8	C	25	50		2	4	6	9	
	10	C	25	75			2	2	6	
	10	C	50	50		1	3	4	15	
	13	C	50	75	1	1		2	14	
	20	C	75	125	1			1	28	
	20	C	100	100	2			2	59	
					1		<u>1</u>	<u>319</u>		
							35	49.6	456	
MUD004	No Visible Gold									No sulphides.
MUD005	3	C	15	15	4	8	12	24	2	~50 grains pyrite (25-200µm).
	5	C	25	25	1	7	7	15	7	
	8	C	25	50	2	6	4	12	16	
	10	C	25	75	1	2	1	4	11	
	10	C	50	50		1	1	2	7	
	15	C	50	100		2	1	3	31	
	20	C	75	125		1		1	26	
							<u>61</u>	54.8	<u>99</u>	
MUD006	3	C	15	15		29	52	81	8	No sulphides.
	5	C	25	25	4	29	39	72	32	
	8	C	25	50	4	13	24	41	54	
	10	C	25	75	1	5	9	15	39	
	10	C	50	50		5	4	9	32	
	13	C	50	75	1	1	4	6	39	
	15	C	50	100			2	2	21	
	20	C	50	150			1	1	21	
	15	C	75	75			2	2	23	
	18	C	75	100		1	1	<u>2</u>	<u>36</u>	
							231	54.8	305	

* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 1/250th of the table feed.

PLATINUM GROUP MINERALS SUMMARY

Client: Alto Ventures Ltd.

File Name: 20177429 - Alto Ventures - Koziol - (MUD) - 6 for KIM - March 20

Total Number of Samples in this Report: 6

ODM Batch Number(s): 7438

Sample Number	Observed PGMs		Total Grains
	Mineral	Number of Grains	
MUD001	None Observed	0	0
MUD002	None Observed	0	0
MUD003	None Observed	0	0
MUD004	None Observed	0	0
MUD005	None Observed	0	0
MUD006	None Observed	0	0

*All samples are oxidized; therefore only native PGE minerals and the most resistant PGE arsenide and antimonide grains (no PGE sulphides or tellurides) are likely to be preserved.

Laboratory Processing Weights

Client: Alto Ventures Ltd.

File Name: 20177429 - Alto Ventures - Koziol - (MUD) - 6 for KIM - March 2017

Total Number of Samples in this Report: 6

ODM Batch Number(s): 7438

Sample Number	Weight of -2.0 mm Table Concentrate (g)												
	0.25 to 2.0 mm Heavy Liquid Separation S.G. 3.20												
	HMC S.G.>3.20												
	Nonferromagnetic HMC												
	Processed Split												
Total	-0.25 mm	Total	Lights S.G. <3.2	Total	-0.25 mm (wash)	Mag	Total	Total		0.25 to 0.5 mm	0.5 to 1.0 mm	1.0 to 2.0 mm	
								%	Weight				
MUD001	599.7	438.2	161.5	159.0	2.5	0.6	0.3	1.6	100	1.6	1.2	0.3	0.1
MUD002	639.7	471.5	168.2	154.8	13.4	1.7	1.6	10.1	100	10.1	7.5	2.1	0.5
MUD003	1140.1	774.8	365.3	325.8	39.5	4.0	12.1	23.4	100	23.4	15.6	5.5	2.3
MUD004	593.9	353.2	240.7	235.1	5.6	0.9	1.2	3.5	100	3.5	2.4	0.8	0.3
MUD005	592.2	433.8	158.4	151.9	6.5	0.9	1.0	4.6	100	4.6	3.4	0.9	0.3
MUD006	457.8	379.1	78.5	74.5	4.0	0.6	0.5	2.9	100	2.9	2.2	0.5	0.2

Kimberlite Indicator Mineral Counts

Client: Alto Ventures Ltd.
 File Name: 20177429 -Alto Ventures - Kozel - (MUD) - 6 for KIM - March 2017
 Total Number of Samples in this Report: 6
 ODM Batch Number(s): 7438

Sample Number	Number of Grains																Total (KIMs)								
	1.0 to 2.0 mm				0.25 to 0.5 mm				1.0 to 2.0 mm				0.5 to 1.0 mm					0.25 to 0.5 mm							
	Low-Cr diopside		Cpy		Gh		Low-Cr diopside		Cpy		Gh		Low-Cr diopside		Cpy			Gh		Low-Cr diopside		Cpy		Gh	
	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P		T	P	T	P	T	P	T	P
MUD001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MUD002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MUD003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MUD004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MUD005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MUD006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

T = Total number of grains in sample. Total is estimated if number is greater than number of picked grains.

P = Number of picked grains in sample.

Kimberlite Indicator Mineral Remarks

Client: Alto Ventures Ltd.

File Name: 20177429 - Alto Ventures - Koziol - (MUD) - 6 for KIM - March 2017

Total Number of Samples in this Report: 6

ODM Batch Number(s): 7438

Sample Number	Remarks
MUD001	Hematite-almandine/epidote-diopside assemblage.
MUD002	Hornblende/epidote assemblage.
MUD003	Hornblende-almandine/epidote-diopside assemblage. SEM checks from 0.5-1.0 mm fraction: 1 GO versus almandine candidate = 1 almandine; and 1 IM versus crustal ilmenite candidate = 1 IM. SEM checks from 0.25-0.5 mm fraction: 1 GP versus ruby corundum candidate = 1 ruby corundum; 1 GO versus almandine candidate = 1 grossular; 5 IM versus crustal ilmenite candidates = 5 IM; 1 FO versus diopside candidate = 1 FO; and 1 blue-green gahnite versus spinel candidate = 1 spinel.
MUD004	Hornblende-hematite-augite/epidote assemblage. SEM checks from 0.25-0.5 mm fraction: 1 IM versus crustal ilmenite candidate = 1 IM; and 1 CR versus rutile candidate = 1 rutile.
MUD005	Augite-hornblende-almandine/epidote assemblage. SEM checks from 0.25-0.5 mm fraction: 1 GP versus almandine candidate = 1 almandine; 1 IM versus crustal ilmenite candidate = 1 IM; and 1 CR candidate = 1 CR.
MUD006	Hornblende-almandine-hematite-augite/epidote assemblage.



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Laboratory Data Report

Client Information

Alto Ventures Ltd
Unit 7 - 1351 C Kelly Lake Road
Sudbury, ON
P3E 5P5

koziol@altoventures.com

Attention: Mr. M. Koziol

Data-File Information

Date: August 14, 2018
Project name: Mud Lake

ODM batch number: 7859
Sample numbers: MUD-07-18 to MUD-18-18
Data file: 20187859 - Alto Ventures - Koziol - Mud Lake - Gold - Aug 2018

Number of samples in this report: 12
Number of samples processed to date: 12
Total number of samples in project: 12

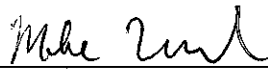
Preliminary data:
Final data:
Revised data:

Samples Processed For: Gold only

Processing Specifications:

1. Submitted by client: Till samples prescreened to -4.0 mm in the field.
2. One ±300 g archival split taken from each sample.
3. All samples panned for gold, PGMs and fine-grained metallic indicator minerals.

Notes


Mike Crawford
Laboratory Manager

Primary Sample Processing Weights and Descriptions

Client: Alto Ventures Ltd

File Name: 20187859 - Alto Ventures - Koziol - Mud Lake - Gold - Aug 2018

Total Number of Samples in this Report: 12

ODM Batch Number(s): 7859

Sample Number	Weight (kg wet)						Screening and Shaking Table Sample Descriptions													Class
							Clasts (+2.0 mm)*					Matrix (-2.0 mm)						Colour		
	Bulk Rec'd	Archived Split	Table Split	+2.0 mm Clasts*	Table Feed	Size	Percentage					Distribution					Colour			
							V/S	GR	LS	OT	S/U	SD	ST	CY	ORG	SD	CY			
MUD-07-18	15.3	0.3	15.0	1.1	13.9	G	50	50	0	0	U	Y	+	-	Y	OC	OC	TILL		
MUD-08-18	16.7	0.3	16.4	2.2	14.2	G	60	40	0	0	U	Y	Y	-	Y	BE	LOC	TILL		
MUD-09-18	14.1	0.3	13.8	3.9	9.9	G	50	50	0	0	U	Y	Y	-	Y	DOC	DOC	TILL		
MUD-10-18	15.0	0.3	14.7	1.5	13.2	G	70	30	0	0	U	Y	Y	-	Y	GB	LOC	TILL		
MUD-11-18	13.5	0.3	13.2	1.5	11.7	G	60	40	0	0	U	Y	+	-	Y	OC	OC	TILL		
MUD-12-18	14.1	0.3	13.8	1.7	12.1	G	60	40	0	0	U	+	Y	-	N	OC	OC	TILL		
MUD-13-18	15.1	0.3	14.8	1.1	13.7	G	60	40	0	0	U	Y	Y	-	Y	OC	OC	TILL		
MUD-14-18	15.2	0.3	14.9	1.8	13.1	G	50	50	0	0	U	Y	Y	-	Y	OC	OC	TILL		
MUD-15-18	11.3	0.3	11.0	0.6	10.4	G	50	50	0	0	U	Y	+	-	Y	DOC	DOC	TILL		
MUD-16-18	14.0	0.3	13.7	2.1	11.6	G	50	50	0	0	U	Y	Y	-	Y	OC	OC	TILL		
MUD-17-18	11.3	0.3	11.0	1.2	9.8	G	50	50	0	0	U	Y	+	-	Y	DOC	DOC	TILL		
MUD-18-18	12.0	0.3	11.7	0.5	11.2	G	50	50	0	0	U	Y	+	-	Y	DOC	DOC	TILL		

*Samples prescreened to -4.0 mm in the field.

Gold Grain Summary

Client: Alto Ventures Ltd

File Name: 20187859 - Alto Ventures - Koziol - Mud Lake - Gold - Aug 2018

Total Number of Samples in this Report: 12

ODM Batch Number(s): 7859

Sample Number	Number of Visible Gold Grains				Nonmag HMC Weight (g)*	Calculated PPB Visible Gold in HMC			
	Total	Reshaped	Modified	Pristine		Total	Reshaped	Modified	Pristine
MUD-07-18	166	1	13	152	55.6	1472	3	37	1432
MUD-08-18	48	4	8	36	56.8	168	20	16	132
MUD-09-18	8	1	2	5	39.6	3582	3551	20	11
MUD-10-18	7	1	1	5	52.8	24	7	1	15
MUD-11-18	15	0	2	13	46.8	51	0	2	49
MUD-12-18	4	0	3	1	48.4	8	0	8	<1
MUD-13-18	22	5	5	12	54.8	84	40	11	33
MUD-14-18	35	11	9	15	52.4	65	38	14	13
MUD-15-18	10	0	3	7	41.6	26	0	9	17
MUD-16-18	10	7	2	1	46.4	26	20	5	2
MUD-17-18	9	1	5	3	39.2	25	2	20	3
MUD-18-18	2	0	1	1	44.8	5	0	3	2

* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 1/250th of the table feed.

Detailed Gold Grain Data

Client: Alto Ventures Ltd

File Name: 20187859 - Alto Ventures - Koziol - Mud Lake - Gold - Aug 2018

Total Number of Samples in this Report: 12

ODM Batch Number(s): 7859

Sample Number	Dimensions (µm)			Number of Visible Gold Grains				Nonmag HMC Weight* (g)	Calculated V.G. Assay in HMC (ppb)	Metallic Minerals in Pan Concentrate
	Thickness	Width	Length	Reshaped	Modified	Pristine	Total			
MUD-07-18	3	C	15	15			20	20	2	No sulphides.
	5	C	25	25		3	28	31	14	
	8	C	25	50		6	37	43	56	
	10	C	25	75			10	10	26	
	10	C	50	50	1	1	15	17	59	
	13	C	50	75		2	13	15	97	
	15	C	50	100			10	10	102	
	15	C	75	75		1	6	7	81	
	18	C	75	100			5	5	89	
	20	C	75	125			1	1	25	
	20	C	100	100			1	1	27	
	25	C	100	150			3	3	150	
	29	C	100	200			1	1	79	
	50	M	125	250			1	1	211	
	75	M	150	300			1	1	455	
							166	55.6	1472	
MUD-08-18	3	C	15	15		1	4	5	<1	Tr (~10 grains) pyrite (25-150 µm).
	5	C	25	25		2	9	11	5	
	8	C	25	50	2	2	9	13	17	
	10	C	25	75		1	2	3	8	
	10	C	50	50		1	6	7	24	
	13	C	50	75	1	1	2	4	25	
	15	C	50	100			2	2	20	
	15	C	75	75	1		1	1	11	
	20	C	75	125			1	1	25	
	22	C	75	150			1	1	33	
							48	56.8	168	
MUD-09-18	5	C	25	25			1	1	1	Tr (~10 grains) pyrite (25-100 µm).
	8	C	25	50			3	3	5	
	10	C	25	75		1	1	1	4	
	10	C	50	50			1	1	5	
	15	C	75	75		1	1	1	16	
	75	M	250	1000	1		1	1	3551	
							8	39.6	3582	
MUD-10-18	5	C	25	25			1	1	<1	No sulphides.
	8	C	25	50		1	3	4	5	
	13	C	50	75	1		1	1	7	
	15	C	50	100			1	1	11	
							7	52.8	24	
MUD-11-18	3	C	15	15			2	2	<1	No sulphides.
	5	C	25	25		1	2	3	2	
	8	C	25	50		1	1	2	3	
	10	C	25	75			2	2	6	
	10	C	50	50			3	3	12	
	13	C	50	75			2	2	15	
	15	C	50	100			1	1	12	
							15	46.8	51	
MUD-12-18	3	C	15	15			1	1	<1	No sulphides.
	5	C	25	25		1	1	1	1	
	10	C	50	50		2	2	2	8	
							4	48.4	9	

* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 1/250th of the table feed.

Detailed Gold Grain Data

Client: Alto Ventures Ltd

File Name: 20187859 - Alto Ventures - Koziol - Mud Lake - Gold - Aug 2018

Total Number of Samples in this Report: 12

ODM Batch Number(s): 7859

Sample Number	Dimensions (µm)			Number of Visible Gold Grains				Nonmag HMC Weight* (g)	Calculated V.G. Assay in HMC (ppb)	Metallic Minerals in Pan Concentrate
	Thickness	Width	Length	Reshaped	Modified	Pristine	Total			
MUD-13-18	3	C	15	15			3	3	<1	Tr (~10 grains) pyrite (25-100 µm).
	5	C	25	25		1	4	5	2	
	8	C	25	50	1	3	1	5	7	
	10	C	25	75			1	1	3	
	10	C	50	50	1			1	4	
	13	C	50	75	1	1	1	3	20	
	15	C	50	100	1		2	3	31	
	18	C	75	100	1			1	18	
							22	54.8	84	
MUD-14-18	3	C	15	15	1	2	5	8	1	Tr (~10 grains) pyrite (25-100 µm).
	5	C	25	25	2	1	5	8	4	
	8	C	25	50	5	3	3	11	15	
	10	C	25	75			1	3	8	
	10	C	50	50		1	1	2	7	
	13	C	50	75	1			1	7	
	15	C	50	100	1			1	11	
	15	C	75	75	1			1	12	
							35	52.4	65	
MUD-15-18	3	C	15	15			2	2	<1	No sulphides.
	5	C	25	25		1	3	4	2	
	8	C	25	50			1	1	2	
	10	C	25	75		1		1	3	
	10	C	50	50		1		1	5	
	15	C	50	100			1	1	14	
							10	41.6	26	
MUD-16-18	5	C	25	25	3	1		4	2	No sulphides.
	8	C	25	50	3		1	4	6	
	10	C	50	50		1		1	4	
	15	C	75	75	1			1	14	
								10	46.4	
MUD-17-18	5	C	25	25			2	2	1	No sulphides.
	8	C	25	50	1	3	1	5	9	
	10	C	50	50		1		1	5	
	13	C	50	75		1		1	9	
								9	39.2	
MUD-18-18	8	C	25	50			1	1	2	No sulphides.
	10	C	25	75		1		1	3	
								2	44.8	

* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 1/250th of the table feed.



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Laboratory Data Report

Client Information

Alto Ventures Ltd
 Unit 7 - 1351 C Kelly Lake Road
 Sudbury, ON
 P3E 5P5

koziol@altoventures.com

Attention: Mr. M. Koziol

Data-File Information

Date: December 04, 2018
 Project name: Mud Lake
 ODM batch number: 7943
 Sample numbers: MUDT-18/19 and 20 to 30
 Data file: 20187943 - Alto Ventures - Koziol - (12-Mud Lake) - November 2018

Number of samples in this report: 12
 Number of samples processed to date: 12
 Total number of samples in project: 12

Preliminary data:
 Final data:
 Revised data:

Samples Processed For: Gold Only

Processing Specifications:

1. Submitted by client: Till samples mostly prescreened to -4.0 mm in the field.
2. One ±300 g archival split taken from each sample.
3. All samples panned for gold, PGMs and fine-grained metallic indicator minerals.

Notes


 Mike Crawford
 Laboratory Manager

Primary Sample Processing Weights and Descriptions

Client: Alto Ventures Ltd
 File Name: 20187943 - Alto Ventures - Koziol - (12-Mud Lake) - November 2018
 Total Number of Samples in this Report: 12
 ODM Batch Number(s): 7943

Sample Number	Weight (kg wet)						Screening and Shaking Table Sample Descriptions												Class
							Clasts (+2.0 mm)*				Matrix (-2.0 mm)								
	Bulk Rec'd	Archived Split	Table Split	+2.0 mm Clasts*	Table Feed	Size	Percentage				Distribution				Colour				
							V/S	GR	LS	OT	S/U	SD	ST	CY	ORG	SD	CY		
MUDT-18/19	11.4	0.3	11.1	1.4	9.7	G	50	50	0	0	U	+	Y	-	+	BN	BN	TILL	
MUDT-20	10.2	0.3	9.9	1.0	8.9	G	40	60	0	0	U	Y	Y	Y	Y	LOC	LOC	TILL	
MUDT-21	10.6	0.3	10.3	0.7	9.6	P	40	60	0	0	U	Y	+	-	Y	OC	OC	TILL	
MUDT-22	9.2	0.3	8.9	0.4	8.5	G	60	40	0	0	U	Y	+	-	+	OC	OC	TILL	
MUDT-23	11.2	0.3	10.9	1.0	9.9	P	30	70	0	0	U	Y	Y	-	Y	LOC	LOC	TILL	
MUDT-24	9.7	0.3	9.4	0.4	9.0	G	60	40	0	0	U	Y	+	-	+	OC	OC	TILL	
MUDT-25	11.2	0.3	10.9	0.6	10.3	G	60	40	0	0	U	Y	+	-	+	OC	OC	TILL	
MUDT-26	11.1	0.3	10.8	0.8	10.0	G	60	40	0	0	U	Y	+	-	Y	OC	OC	TILL	
MUDT-27	11.2	0.3	10.9	1.5	9.4	G	50	50	0	0	U	Y	Y	Y	Y	OC	OC	TILL	
MUDT-28	10.1	0.3	9.8	1.4	8.4	P	90	10	0	0	U	Y	Y	Y	Y	OC	OC	TILL	
MUDT-29	9.0	0.3	8.7	3.7	5.0	G	60	40	0	0	U	+	Y	-	Y	OC	OC	TILL	
MUDT-30	13.7	0.3	13.4	3.1	10.3	P	60	40	0	0	U	Y	Y	Y	Y	LOC	LOC	TILL	

*Samples mostly prescreened to -4.0 mm in the field.

Gold Grain Summary

Client: Alto Ventures Ltd

File Name: 20187943 - Alto Ventures - Koziol - (12-Mud Lake) - November 2018

Total Number of Samples in this Report: 12

ODM Batch Number(s): 7943

Sample Number	Number of Visible Gold Grains				Nonmag HMC Weight (g)*	Calculated PPB Visible Gold in HMC			
	Total	Reshaped	Modified	Pristine		Total	Reshaped	Modified	Pristine
MUDT-18/19	23	9	6	8	38.8	36	12	4	21
MUDT-20	23	9	6	8	35.6	81	30	39	12
MUDT-21	6	3	1	2	38.4	25	13	9	3
MUDT-22	11	3	4	4	34.0	52	47	2	3
MUDT-23	25	9	6	10	39.6	103	18	17	68
MUDT-24	8	4	1	3	36.0	8	4	2	2
MUDT-25	3	1	1	1	41.2	2	2	1	<1
MUDT-26	6	2	0	4	40.0	17	1	0	16
MUDT-27	9	3	4	2	37.6	84	41	37	5
MUDT-28	7	2	1	4	33.6	37	30	1	6
MUDT-29	17	2	0	15	20.0	82	17	0	65
MUDT-30	12	6	4	2	41.2	34	20	13	1

* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 1/250th of the table feed.

Detailed Gold Grain Data

Client: Alto Ventures Ltd

File Name: 20187943 - Alto Ventures - Koziol - (12-Mud Lake) - November 2018

Total Number of Samples in this Report: 12

ODM Batch Number(s): 7943

Sample Number	Dimensions (µm)			Number of Visible Gold Grains				Nonmag HMC Weight* (g)	Calculated V.G. Assay in HMC (ppb)	Metallic Minerals in Pan Concentrate
	Thickness	Width	Length	Reshaped	Modified	Pristine	Total			
MU DT-18/19	3	C	15	15	1	3	5	9	1	No sulphides.
	5	C	25	25	5	2	1	8	5	
	8	C	25	50	2	1		3	6	
	10	C	50	50	1		1	2	10	
	15	C	50	100			1	1	15	
							23	38.8	36	
MU DT-20	3	C	15	15	1		2	3	<1	No sulphides.
	5	C	25	25	3	2	3	8	5	
	8	C	25	50	3	2	2	7	14	
	10	C	25	75	1			1	4	
	10	C	50	50		1	1	2	11	
	15	C	75	75	1			1	18	
						1	1	28		
							23	35.6	81	
MU DT-21	5	C	25	25			1	1	1	No sulphides.
	8	C	25	50	2		1	3	6	
	13	C	50	75	1	1		2	19	
							6	38.4	25	
MU DT-22	3	C	15	15		2	2	4	1	No sulphides.
	5	C	25	25	1	2	1	4	3	
	8	C	25	50	1		1	2	4	
	20	C	100	100	1			1	44	
							11	34.0	52	
MU DT-23	3	C	15	15	1	1	2	4	1	No sulphides.
	5	C	25	25	2	2		4	2	
	8	C	25	50	4	1	1	6	11	
	10	C	50	50	2	1	4	7	34	
	13	C	50	75		1	1	2	18	
	18	C	50	125			1	1	21	
						1	1	16		
							25	39.6	103	
MU DT-24	3	C	15	15			2	2	<1	No sulphides.
	5	C	25	25	3			3	2	
	8	C	25	50	1	1	1	3	6	
							8	36.0	8	
MU DT-25	3	C	15	15			1	1	<1	No sulphides.
	5	C	25	25		1		1	1	
	8	C	25	50	1			1	2	
							3	41.2	2	
MU DT-26	3	C	15	15	1			1	<1	No sulphides.
	5	C	25	25	1		1	2	1	
	8	C	25	50			1	1	2	
	10	C	50	50			1	1	5	
	13	C	50	75			1	1	9	
							6	40.0	17	

* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 1/250th of the table feed.

Detailed Gold Grain Data

Client: Alto Ventures Ltd

File Name: 20187943 - Alto Ventures - Koziol - (12-Mud Lake) - November 2018

Total Number of Samples in this Report: 12

ODM Batch Number(s): 7943

Sample Number	Dimensions (µm)			Number of Visible Gold Grains				Nonmag HMC Weight* (g)	Calculated V.G. Assay in HMC (ppb)	Metallic Minerals in Pan Concentrate
	Thickness	Width	Length	Reshaped	Modified	Pristine	Total			
MUDT-27	3	C	15	15			1		<1	No sulphides.
	8	C	25	50		1	1		2	
	10	C	50	50	1	1	1	3	15	
	13	C	50	75	1			1	10	
	15	C	50	100		2		2	30	
	18	C	75	100	1			1	26	
							9	37.6	84	
MUDT-28	5	C	25	25	1	1	2	4	3	No sulphides.
	8	C	25	50			2	2	4	
	18	C	75	100	1			1	29	
							7	33.6	37	
MUDT-29	3	C	15	15			3	3	1	No sulphides.
	5	C	25	25			4	4	5	
	3	C	25	5			2	2	<1	
	10	C	25	75	1		3	4	29	
	10	C	50	50	1		2	3	29	
	13	C	50	75			1	1	18	
							17	20.0	82	
MUDT-30	5	C	25	25	2		2	4	2	No sulphides.
	8	C	25	50	1	2		3	5	
	10	C	25	75	1			1	3	
	10	C	50	50	1	2		3	14	
	13	C	50	75	1			1	9	
							12	41.2	34	

* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 1/250th of the table feed.



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Nepean, Ontario, Canada, K2E 7X1
Tel: (613) 226-1771 Fax: (613) 226-8753
odm@storm.ca www.odm.ca

Laboratory Data Report

Client Information

Alto Ventures Ltd
Unit 7 - 1351 C Kelly Lake Road
Sudbury, ON
P3E 5P5

altoventures@bellnet.ca

Attention: Mike Koziol

Data-File Information

Date: June 13, 2019
Project name: Mud Lake

ODM batch number: 8089
Sample numbers: MUdT - 31 to 37
Data file: 20198089 - Alto Ventures - Koziol - (Gold) - June 2019

Number of samples in this report: 7
Number of samples processed to date: 7
Total number of samples in project: 7

Preliminary data:	<input type="checkbox"/>
Final data:	<input checked="" type="checkbox"/>
Revised data:	<input type="checkbox"/>

Samples Processed For: Gold Only

Processing Specifications:

1. Submitted by client: Till Samples mostly prescreened to <4.0 mm in the field.
2. One \pm 300 g archival split taken from each sample.
3. All samples panned for gold, PGMs and fine-grained metallic indicator minerals.

Notes

Mike Crawford
Laboratory Manager

Primary Sample Processing Weights and Descriptions

Client: Alto Ventures Ltd

File Name: 20198089 - Alto Ventures - Koziol - (Gold) - June 2019

Total Number of Samples in this Report: 7

ODM Batch Number(s): 8089

Sample Number	Weight (kg wet)						Screening and Shaking Table Sample Descriptions														Class
							Clasts (+2.0 mm)					Matrix (-2.0 mm)									
	Bulk Rec'd	Archived Split	Table Split	+2.0 mm Clasts	Table Feed	Size	Percentage					Distribution					Colour				
							V/S	GR	LS	OT	S/U	SD	ST	CY	ORG	SD	CY				
MUDT-31	18.2	0.3	17.9	1.7	16.2	G	50	50	0	0	U	+	Y	-	N	OC	OC	TILL			
MUDT-32	15.1	0.3	14.8	1.1	13.7	G	40	60	0	0	U	+	Y	-	N	OC	OC	TILL			
MUDT-33	16.5	0.3	16.2	1.7	14.5	G	50	50	0	0	U	+	Y	-	N	OC	OC	TILL			
MUDT-34	13.9	0.3	13.6	1.2	12.4	G	40	60	0	0	U	+	Y	-	N	OC	OC	TILL			
MUDT-35	14.9	0.3	14.6	2.5	12.1	G	50	50	0	0	U	+	Y	-	N	DOC	DOC	TILL			
MUDT-36	28.4	0.3	28.1	17.5	10.6	P	30	70	0	0	U	+	Y	-	N	DOC	DOC	TILL			
MUDT-37	17.3	0.3	17.0	7.4	9.6	G	50	50	0	0	U	+	Y	-	N	OC	OC	TILL			

Gold Grain Summary

Client: Alto Ventures Ltd

File Name: 20198089 - Alto Ventures - Koziol - (Gold) - June 2019

Total Number of Samples in this Report: 7

ODM Batch Number(s): 8089

Sample Number	Number of Visible Gold Grains				Nonmag HMC Weight (g)*	Calculated PPB Visible Gold in HMC			
	Total	Reshaped	Modified	Pristine		Total	Reshaped	Modified	Pristine
MUDT-31	0	0	0	0	64.8	0	0	0	0
MUDT-32	6	4	2	0	54.8	7	6	2	0
MUDT-33	300	7	8	285	58.0	2215	944	21	1249
MUDT-34	9	4	2	3	49.6	79	8	69	2
MUDT-35	9	3	2	4	48.4	20	3	13	4
MUDT-36	8	2	3	3	42.4	143	13	83	47
MUDT-37	5	0	1	4	38.4	26	0	1	26

* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 0.4% of the table feed.

Detailed Gold Grain Data

Client: Alto Ventures Ltd

File Name: 20198089 - Alto Ventures - Koziol - (Gold) - June 2019

Total Number of Samples in this Report: 7

ODM Batch Number(s): 8089

Sample Number	Dimensions (µm)			Number of Visible Gold Grains				Nonmag HMC Weight* (g)	Calculated V.G. Assay in HMC (ppb)	Metallic Minerals in Pan Concentrate
	Thickness	Width	Length	Reshaped	Modified	Pristine	Total			
MUDT-31	No Visible Gold									Tr (~20 grains) pyrite (25-100 µm).
MUDT-32	5	C	25	25	2	1	3	1	Tr (~20 grains) pyrite (25-100 µm).	
	8	C	25	50	1	1	2	3		
	10	C	50	50	1		1	4		
								6		54.8
MUDT-33	3	C	15	15			32	32	Tr (~50 grains) pyrite (25-100 µm). Pan concentrate vialled.	
	5	C	25	25	1	3	64	68		29
	8	C	25	50		3	66	69		86
	10	C	25	75	1		40	41		102
	10	C	50	50	1		26	27		89
	13	C	50	75	1	1	21	23		142
	15	C	50	100		1	10	11		108
	15	C	75	75	1		6	7		77
	18	C	75	100			7	7		120
	20	C	75	125			3	3		73
	20	C	100	100			4	4		103
	25	C	100	150	1		4	5		239
	29	C	150	150			2	2		170
	75	M	300	300	1		1	1		873
								300	58.0	2215
MUDT-34	3	C	15	15	2		1	3	<1	Tr (~100 grains) pyrite (25-500 µm).
	5	C	25	25			1	1	<1	
	8	C	25	50			1	1	1	
	10	C	50	50	2			2	8	
	15	C	75	75		1		1	13	
	25	C	100	150		1		1	56	
								9	49.6	79
MUDT-35	3	C	15	15			2	2	<1	Tr (~50 grains) pyrite (25-150 µm).
	5	C	25	25	1		1	2	1	
	8	C	25	50	2	1		3	4	
	10	C	25	75			1	1	3	
	15	C	50	100		1		1	12	
								9	48.4	20
MUDT-36	5	C	25	25			1	1	1	Tr (~50 grains) pyrite (25-150 µm).
	8	C	25	50		1	1	2	3	
	10	C	50	50	1			1	5	
	13	C	50	75	1			1	8	
	15	C	50	100		1		1	13	
	22	C	75	150			1	1	44	
	25	C	125	125		1		1	68	
								8	42.4	143
MUDT-37	5	C	25	25		1		1	1	No sulphides.
	8	C	25	50			1	1	2	
	10	C	50	50			1	1	5	
	13	C	50	75			2	2	19	
								5	38.4	26

* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 0.4% of the table feed.



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Laboratory Data Report

Client Information

Alto Ventures Ltd
Unit 7 - 1351 C Kelly Lake Road
Sudbury, ON
P3E 5P5

altoventures@bellnet.ca

Attention: Mike Koziol

Data-File Information

Date: July 15, 2019
Project name: Mud Lake

ODM batch number: 8108
Sample numbers: MUDT-38 to 40
Data file: 20198108 - Alto Ventures - Koziol - (Gold) - July 2019

Number of samples in this report: 3
Number of samples processed to date: 3
Total number of samples in project: 3

Preliminary data:	<input type="checkbox"/>
Final data:	<input checked="" type="checkbox"/>
Revised data:	<input type="checkbox"/>

Samples Processed For: Gold Only

Processing Specifications:

1. Submitted by client: Till Samples mostly prescreened to <4.0 mm in the field.
2. One \pm 300 g archival split taken from each sample.
3. All samples panned for gold, PGMs and fine-grained metallic indicator minerals.

Notes

Mike Crawford
Laboratory Manager

Primary Sample Processing Weights and Descriptions

Client: Alto Ventures Ltd
 File Name: 20198108 - Alto Ventures - Koziol - (Gold) - July 2019
 Total Number of Samples in this Report: 3
 ODM Batch Number(s): 8108

Sample Number	Weight (kg wet)						Screening and Shaking Table Sample Descriptions													Class
							Clasts (+2.0 mm)					Matrix (-2.0 mm)								
	Bulk Rec'd	Archived Split	Table Split	+2.0 mm Clasts	Table Feed	Size	Percentage				Distribution				Colour					
							V/S	GR	LS	OT	S/U	SD	ST	CY	ORG	SD	CY			
MUDT-38	11.7	0.3	11.4	0.8	10.6	G	50	50	0	0	U	+	Y	-	N	OC	OC	TILL		
MUDT-39	13.9	0.3	13.6	1.1	12.5	P	50	50	0	0	U	+	Y	-	N	OC	OC	TILL		
MUDT-40	10.3	0.3	10.0	0.4	9.6	G	50	50	0	0	U	+	Y	-	N	OC	OC	TILL		

Gold Grain Summary

Client: Alto Ventures Ltd

File Name: 20198108 - Alto Ventures - Koziol - (Gold) - July 2019

Total Number of Samples in this Report: 3

ODM Batch Number(s): 8108

Sample Number	Number of Visible Gold Grains				Nonmag HMC Weight (g)*	Calculated PPB Visible Gold in HMC			
	Total	Reshaped	Modified	Pristine		Total	Reshaped	Modified	Pristine
MUDT-38	455	4	13	438	42.4	1210	11	43	1156
MUDT-39	44	14	15	15	50.0	126	83	12	31
MUDT-40	22	8	7	7	38.4	43	13	29	1

* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 0.4% of the table feed.

Detailed Gold Grain Data

Client: Alto Ventures Ltd

File Name: 20198108 - Alto Ventures - Koziol - (Gold) - July 2019

Total Number of Samples in this Report: 3

ODM Batch Number(s): 8108

Sample Number	Dimensions (µm)			Number of Visible Gold Grains				Nonmag HMC Weight* (g)	Calculated V.G. Assay in HMC (ppb)	Metallic Minerals in Pan Concentrate
	Thickness	Width	Length	Reshaped	Modified	Pristine	Total			
MUDT-38	3	C	15	15		1	112	113	14	Tr (~20 grains) pyrite (25-100 µm). Pan concentrate viald.
	5	C	25	25	1	4	135	140	80	
	8	C	25	50	1	1	90	92	157	
	10	C	25	75		1	33	34	116	
	10	C	50	50	2	4	26	32	145	
	13	C	50	75		2	17	19	160	
	15	C	50	100			14	14	188	
	15	C	75	75			3	3	45	
	18	C	75	100			3	3	70	
	20	C	75	125			3	3	99	
	25	C	100	150			1	1	66	
	25	C	125	125			1	1	68	
							455	42.4	1210	
MUDT-39	3	C	15	15		6	6	12	1	Tr (~20 grains) pyrite (25-150 µm).
	5	C	25	25	4	6	4	14	7	
	8	C	25	50	1		2	3	4	
	10	C	25	75		3	2	5	14	
	10	C	50	50	3			3	12	
	13	C	50	75	4			4	29	
	15	C	50	100	1			1	11	
	18	C	75	100			1	1	20	
20	C	75	125	1			1	28		
							44	50.0	126	
MUDT-40	3	C	15	15		3	6	9	1	No sulphides.
	5	C	25	25	2	1	1	4	3	
	8	C	25	50	6	1		7	13	
	13	C	50	75		1		1	9	
	15	C	75	75		1		1	17	
							22	38.4	43	

* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 0.4% of the table feed.

MUD LAKE 2016 TILL SAMPLE LOCATIONS

UTM NAD 83 Zone 16N

glacial striation estimated at 245°

2016

Number	Easting	Northing	Depth (m)	Description
MUD001	449328	5511795	0.2	
MUD002	449868	5512109	0.2	
MUD003	450234	5512421	0.7	
MUD004	448441	5511480	0.6	
MUD005	447830	5510724	1.1	
MUD006	446985	5510078	0.15	on flat oc

2018

MUDT07	447763	5510573	0.5	off east slope of o/c, subangular, mostly medium grained garrondiorite and mafic volcanic fragments, sandy till, one piece of angular white qtz vein
MUDT08	447693	5510553	1	on flat o/c, subangular to subrounded, mostly medium grained granodiorite, few pink granitic and few subrounded mafic volcanic, pieces of angular foliated mafic volcanic, sandy till
MUDT09	450011	5512214	1.5	on side of o/c, brown, oxidized, contains angular and subangular medium grained intrusive pieces as well as mafic schist, sandy matrix; tried to resample MUD03 but looks like most is esker?
MUDT10	446796	5510646	1	in roadside pit on side of o/c, grey subangular to subrounded, sand and silt matrix, few large boulders of diorite
MUDT11	446962	5510421	0.2	on top of o/c ridge, brownish-tan colour, subrounded to subangular intermediate intrusive and rounded volcanics, looks like good till
MUDT12	447009	5510226	0.2	on top of o/c ridge, light brown-tan color, sandy-silt matrix, subrounded to subangular clasts, mainly intermediate intrusive
MUDT13	446985	5510078	0.15	resample of MUD006, on flat o/c by road, sandy-silt-clay matrix, mainly subangular to subrounded pieces of intermediate intrusive
MUDT14	447227	5510215	0.3	on o/c ridge, subrounded to subangular pieces, mainly intermediate intrusive,
MUDT15	446920	5509940	0.2	on o/c ridge near road, subrounded to subangular, mainly intermediate intrusive, sandy-silt-clay matrix

MUDT16	447230	5509832	1 on edge of o/c along edge, tan-brownish color, sandy matrix with subrounded to subangular mainly intermediate intrusive pieces
MUDT17	447444	5509767	0.2 on top of o/c ridge, sandy-silt matrix, subangular to subrounded, mainly intermediate intrusive pieces
MUDT18	447644	5509591	0.3 on top of o/c, sandy-silt matrix, 40% clasts, subrounded to subangular, dominantly intermediate medium grained intrusive
2018	23-Sep		MUDT19-24 followup to MUDT07
MUDT19	447812	5510554	0.2 in open cut, rolling outcrop ridge, sample from under fallen tree on gd outcrop, till is sandy with subangular to subrounded pebbles
MUDT20	447832	5510520	0.6 in open cut on oc ridge from under uprooted tree on gd oc, sandy till with subangular to subrounded pebbles
MUDT21	447873	5510488	0.6 in open cut on oc ridge from under uprooted tree on gd oc, sandy till with subangular to subrounded pebbles
MUDT22	447928	5510511	0.5 in open cut on oc ridge from under uprooted tree on gd oc, sandy till with subangular to subrounded pebbles
MUDT23	447931	5510562	0.6 in open cut on top of oc ridge, south facing slope, sample has more sand than MUDT-19 to 22
MUDT24	447888	5510614	0.7 on edge of open cut, down ice from offset trench, from uprooted tree on gd oc, till is sandy with subangular to subrounded clasts
MUDT25	448797	5511494	0.2 along EW road north of Clarke trench, sandy till on oc ridge, subangular to subrounded prbbles
MUDT26	448724	5511549	0.2 roadside on top of oc of gd, to west is the Clarke shear, sandy till with subangular to subrounded pebbles
MUDT27	448653	5511597	0.2 on road side, edge of oc, sample is down ice crossing Clarke shear, sandy till with subangular to subrounded clasts
MUDT28	448888	5411400	0.3 on roadside oc ridge with intervening valleys, till is sandy with subangular to subrounded pebbles
MUDT29	449082	5511263	0.2 on road side, edge of oc, till is mainly fine gravel, oc is cut by fractures filled with veinlets of magnetite-hematite?, pink feldspathic and epidote alteration along fractures, photos of mte veinlets
MUDT30	449223	5511118	0.2 on south edge of oc ridge, sandy till similar to MUDT28

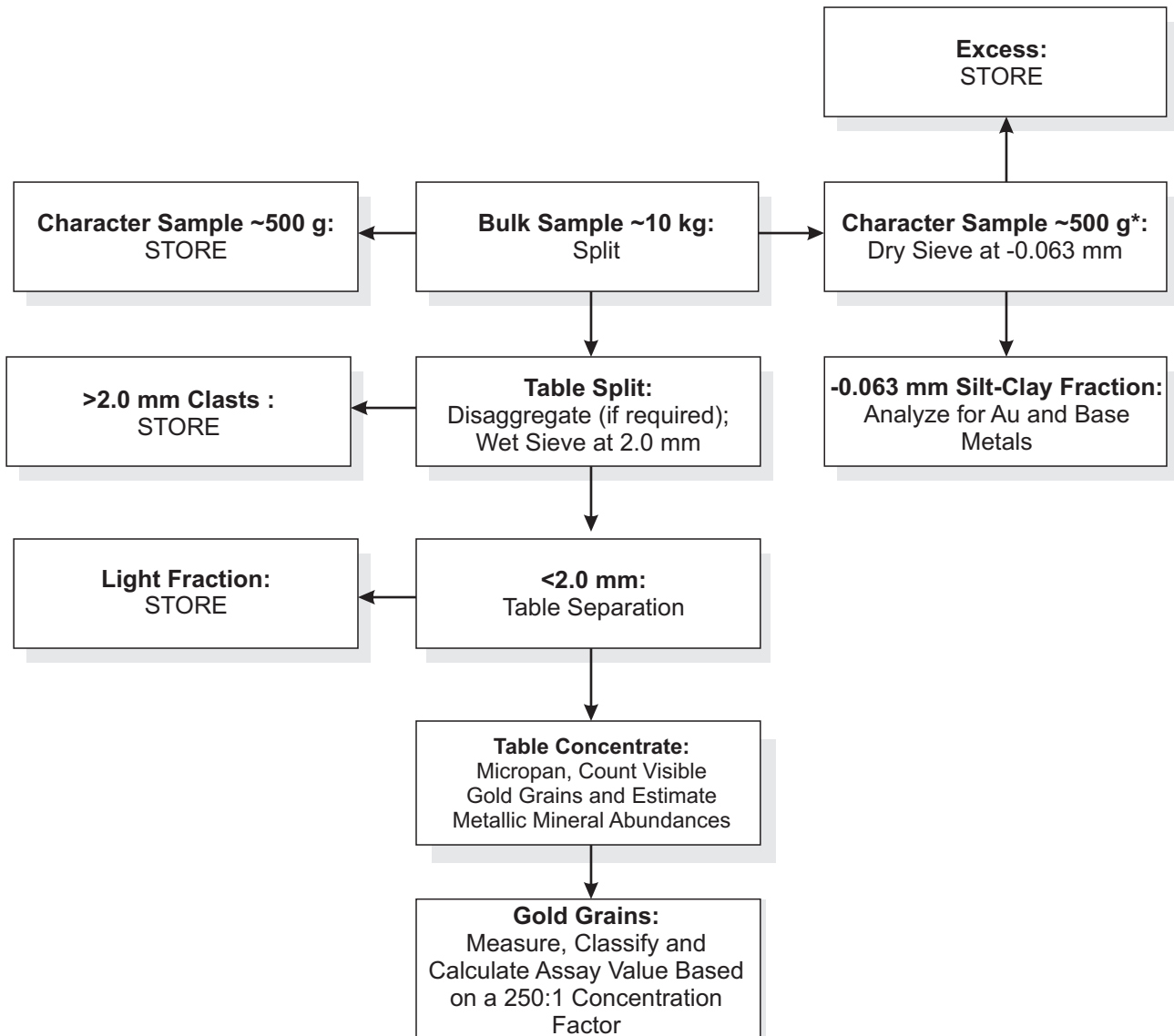
2019

MUDT-31	448806	5510420	0.2 sample on O/C ridge, pot hole in bedrock, sandy till, rounded to subrounded pebbles mostly granodiorite/diorite, 60%b intrusive, 30% volcanic, 0.5m deep
MUDT-32	449180	5510394	0.2 sample on top of O/C ridge, pot hole in bedrock, subangular to subrounded pebbles, mostly felsic intrusive, 0.5m deep
MUDT-33	449622	5510291	0.3 in road fill quarry, downslope from large O/C, sample 0.3m deep, sandy matrix, rounded to subangular boulders and pebbles, mainly felsic intrusive
MUDT-34	449752	5510669	0.6 on top of O/C ridge in pot hole, 0.6m deep, sandy matrix with subrounded to rounded clasts
MUDT-35	449225	5511115	0.2 sample close to 2018 till 30, on east facing slope of large O/C of gd, sandy matrix, subrounded to subangular pebbles and cobbles of felsic and intermediate intrusives, some rusty weathered material in sample
MUDT-36	449081	5511258	site of sample T29 from 2018, on slope of mte-fractures in O/C, sample is very wet, looks like fine gravel, if anomalous need to review sample mediums on property
MUDT-37	449021	5511267	on slope of gd ridge, looks like gravel deposit in valley between ridges, clasts are subrounded felsic intrusive and gneissic rocks
MUDT-38	449624	5510290	0.3 resample T-33 from same pit
MUDT-39	449644	5510302	0.2 from same gravel pit/road fill area as T-33, within 2m of outcrop to west,
MUDT-40	449675	5510330	0.2 end of pit/road fill area, sample from slope of o/c, contains angular to subrounded pebbles, intrusive and volcanic; several gossaned rocks, check pebbles why so weathered

APPENDIX C

ODM STANDARD FLOW CHART FOR GOLD GRAINS

Overburden Drilling Management Limited



Processing flow sheet for gold grains without heavy mineral concentrate preparation.

APPENDIX D

ROCK GRAB SAMPLE DESCRIPTIONS AND ASSAY CERTIFICATES

Mud Lake Prospecting and Geology Rock Samples Descriptions 2018-2019 Programs

Sample	Property	Date	Sampler	X_N83Z16 N	Y_N83Z16 N	Sample Source	Sample Type	Lithology	Texture	Alteration	Mineraliz ation	Notes
Marko Bogdanovic												
106761	Mud Lake	July 17, 2018	Marko Bogdanovic	449104	5511332	Outcrop	Grab	Quartz Diorite		chl		Sheared with smooth slickensides
106762	Mud Lake	July 17, 2018	Marko Bogdanovic	448983	5511264	Outcrop	Grab	Granodiorite		m perv chl	1% py, tr cpy	Fault zone with slickensides striking 68 deg, rusty fault surface, fault bounded by granodiorite
106785	Mud Lake	July 22, 2018	Marko Bogdanovic	450912	5513042	Outcrop	Grab	Diorite	w sheared	chl	tr cubic dissem py	Sheared with some smooth surfaces, clear qtz crystals 0.5-1mm in size
106786	Mud Lake	July 22, 2018	Marko Bogdanovic	451168	5513258	Outcrop	Grab	Quartz Diorite	w-m sheared	chl		Small few-cm splay of sheared diorite, minor qtz-carb veins, adjacent to more massive diorite, contains clear 0.5-2mm quartz eyes
106787	Mud Lake	July 22, 2018	Marko Bogdanovic	451480	5513360	Outcrop	Grab	Quartz Vein		chl	1% cubic dissem py	Quartz blowout 2x1m o/c with few 1-3cm sheared remnants of mafic chloritic material containing very fine sulphides, samples 60% blocky white qtz, 40% sheared mafic chloritic rock, bounded by massive chl alt granodiorite
106788	Mud Lake	July 22, 2018	Marko Bogdanovic	451267	5513452	Outcrop	Grab	Granodiorite	w-m sheared	m chl		Few fractures, minor rust
106789	Mud Lake	July 22, 2018	Marko Bogdanovic	447634	5509597	Outcrop	Grab	Diorite	w fol	chl, silicified	1% sub- mm mag veinlets	Very rusty on magnetite fractures, adjacent to sheared zone, qtz-carb veins, few fractures with dark red hematite, fine elongate slivers or pods of chl up to 2mm

106790	Mud Lake	July 23, 2018	Marko Bogdanovic	447810	5510430	Boulder	Grab	Quartz vein			tr py	Large boulder 1+ meters, coarse crystals of white quartz, barren, fine grained chloritic flow material adjacent with py. Samples ha about 25% quartz, 75% chloritic material with tr pyrite.
106791	Mud Lake	July 23, 2018	Marko Bogdanovic	447853	5510615	Outcrop	Grab	Granodiorite	w sheared	s chl		Medium grained, adjacent qtz vein striking 80 deg and along it fine grained chloritic flow material, some rust.
106792	Mud Lake	July 23, 2018	Marko Bogdanovic	447042	5510572	Boulder	Grab	Granodiorite	m sheared	chl	0.5% dissemin py	1X1m boulder, with qtz-carb veins up to 5cm wide bearing py, area littered with numerous boulders with the same composition. Sample is 10% qtz vein and rest is sheared qtz-rich granodiorite with chloritic fine grained material.
106793	Mud Lake	July 23, 2018	Marko Bogdanovic	447539	5509739	Boulder	Grab	Granodiorite	m sheared	chl	1% py along potassic veins	30cm boulder, numerous potassic veins 0.5-2mm in width, few thing along fol dark magnetite bands
106794	Mud Lake	July 24, 2018	Marko Bogdanovic	447535	5509739	Outcrop	Grab	Granodiorite	m sheared	chl	large up to 3mm cubes of py	Sheared rock with smooth greasy sheen shear surfaces, common potassic veins from 0.5-5mm. Some magnetite bands discontinous along shear surface. Few rusty fractures. Minor qtz-carb mm-scale veinlets. Pyrite sometimes eroded from rock.

106795	Mud Lake	July 24, 2018	Marko Bogdanovic	447535	5509739	Outcrop	Grab	Granodiorite	m sheared	chl	Possible fault or shear zone, 1X1 m o/c exposure against valley side. Qtz-carb veins up to 1cm thick. Soft broken smooth material with black-green chlorite pockets showing sense of movement on plane. Quartz is usually clear and transparent and surrounded by rusty material. Sample is of the sheared/faulted rock. In outcrop bounded by more massive granodiorite.
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106796	Mud Lake	July 24, 2018	Marko Bogdanovic	448334	5511511	Outcrop	Grab	Granodiorite			
106797	Mud Lake	July 24, 2018	Marko Bogdanovic	448271	5511531	Outcrop	Grab	Granodiorite			
106798	Mud Lake	July 24, 2018	Marko Bogdanovic	449342	5512929	Outcrop	Grab	Granodiorite			
106799	Mud Lake	July 24, 2018	Marko Bogdanovic	449600	5513090	Outcrop	Grab	Granodiorite			

Rick Cote

168645	Mud Lake	July 22/2018	Rick Cote	451173	5513345	outcrop		mafic volcanic	m fol	carb, chlorite	nvs		
168646	Mud Lake	July 22/2018	Rick Cote	451248	5513458	outcrop		mafic volcanic	s fol	carb, chlorite	nvs		
168647	Mud Lake	July 22/2018	Rick Cote	451263	5513389	outcrop		mafic volcanic	massive	w chlorite	nvs		
168648	Mud Lake	July 23/2018	Rick Cote	447642	5509612	outcrop		intermediate	massive	carb	1% cpy	7% qtz	
168649	Mud Lake	July 23/2018	Rick Cote	447642	5509612	outcrop		mafic volcanic	m fol	carb, chlorite	nvs	5% qtz	
168650	Mud Lake						Standar						
168901	Mud Lake	Jul 24/2018	Rick Cote	448290	5511683	outcrop		mafic volcanic	m fol	chlorite	trace diss	py	
168902	Mud Lake	Jul 24/2018	Rick Cote	448281	5511652	outcrop		mafic volcanic	m fol	chlorite	nvs		

168903	Mud Lake	Jul 24/2018	Rick Cote	448257	5511584	outcrop		intermediate massive s	0.5-1.0% Potassium diss py	
168904	Mud Lake	Jul 24/2018	Rick Cote	448685	5512677	outcrop		granodiorite		granodiorite, sheared block near-outcrop, chlorite-carbonate altered, few diss crystals of py
E5924651	Mud Lake	May 31/2019	Rick Cote	449811	5510291	Stop 6	grab	granodiorite	Py 0.1%	chloritized, sheared green volcanic fragmental, minor py, faint micro Qtz-cb veinlets, strike of shear/foliation 060/80SE
E5924652	Mud Lake	May 31/2019	Rick Cote	449758	5510660	Stop 14	grab	granodiorite	Py 2%, Cp 1%	along same shear as stop 12, sample contains 3% sulphides along fractures-2% py, 1% cp sheared weak cb alteration along foliation, strikes at 040, magnetic
E5924653	Mud Lake	Jun 1/2019	Rick Cote	449159	5510842		grab	granodiorite		
Mike Koziol										
106960	Mud Lake	Jul 17/2018	Mike Koziol	448942	5511151	outcrop		granodiorite		sheared granodiorite, tight shear
106961	Mud Lake	Jul 17/2018	Mike Koziol	448950	5511172	outcrop		FP Granodiorite		coarse QFP, feldspars up to 1 cm, matrix sericitized and carbonate altered, minor chlorite pockets, 2 grains of fine diss py, photos
106968	Mud Lake	Jul 22/2018	Mike Koziol	451411	5513353	outcrop		granodiorite		shear zone, sheared gd strikes 065°/85N, chloritized, barren of sulphides and veins
106969	Mud Lake	Jul 22/2018	Mike Koziol	451278	5513206	outcrop		granodiorite		brecciated granodiorite, silicified, chl altered locally, Qtz veinlets, 2% diss py (cp?)
106970	Mud Lake	Jul 22/2018	Mike Koziol	451268	5513208	outcrop		Qtz-chlorite vein		Qtz-chlorite vein, 10 cm wide, sample contains 30% vein material, 1% diss py within the Qtz vein

106971	Mud Lake	Jul 23/2018	Mike Koziol	447564	5509773	outcrop		granodiorite		shear zone strikes at 050°, chloritized, sericitized, strongly sheared, no veining or sulphide mineralization, 5 to 10m wide, on strike with Marko's mte bearing shear
106972	Mud Lake	Jul 24/2018	Mike Koziol	448413	5511638	outcrop		granodiorite		granodiorite, sheared medium grained, now mostly sericite-chlorite-qtz schist, weak carbonate oxidation, trace diss pyrite crystals
106973	Mud Lake	Jul 24/2018	Mike Koziol	448400	5511735	outcrop		qtz vein		qtz from 5cm wide qtz vein from joint in granodiorite
106974	Mud Lake	Jul 24/2018	Mike Koziol	448414	5511811	outcrop		granodiorite		massive, medium grained, jointed with white and rose qtz veins in three of the joints withing 5m width, veins are from 5cm to 15cm and locally contain 2% cp in vugs, veins strike at 270°/80N
107975	Mud Lake	Jul 24/2018	Mike Koziol	448605	5512603	outcrop		qtz vein		sample contains 70% white qtz vein and 30% mafic dyke and chlorite, no sulphides observed
E5924701	Mud Lake	May 31/2019	Mike Koziol	448820	5510387	Stop 1	grab	granodiorite	He 1%	massive, medium grained, green chlorite altered matrix; feldspars are lightgreen altered (epidotized), cut by qtz-hematite veins upto 1 cm wide; photos of hematite vein; sample contains narrow hematite veinlet
E5924702	Mud Lake	May 31/2019	Mike Koziol	448854	5510339	Stop 2	grab	granodiorite		sheared granodiorite, strongly chloritized, shear foliation 230/70N, no mineraliztion, non magnetic

E5927403	Mud Lake	May 31/2019	Mike Koziol	449758	5510286	Stop 4	grab	granodiorite	Mte 1%	on edge of new clearcut, shear zone in gd strikes at 060/80SE; strong sericite, minor chlorite, light green, disseminated magnetite in shear-probable mag anomaly high	
E5924704	Mud Lake	May 31/2019	Mike Koziol	449819	5510721	Stop 11	grab	granodiorite	Cp 0.1%	large O/C of sheared gd, chl altered, strikes at 050, strongly magnetic due to disseminated fine grained magnetite, cut by vuggy qtz veinlets forming 5% of O/C, traces of cp in veinlets	
E5924705	Mud Lake	May 31/2019	Mike Koziol	449876	5510749	Stop 12	grab	granodiorite	Mte 1%, Cp 0.5%, Pt 0.5%	shear zone, continuation of zone from stop 11, strike 040/80 to 90 vertical, but possible steep west; strongly magnetic includes narrow bands containing discontinuous qtz micro veinlets and pockets of silicification, up to 1% py+cp are associated with the veinlets; if Au is anomalous - will need to wash and cut O/C, S&T sample, no photos as not very good exposure	
E5924706	Mud Lake	Jun 1/2019	Mike Koziol	449325	5511095	Stop 16	grab	granodiorite	Mte 2%,	sheared, strikes at 050/85NW, very tight, weak chl along shear trend with gossaned patches due to carbonate weathering, strongly magnetic due to 1-2% very fine diss mte, shear minimum 10m wide, sample for PTS	
E5924707	Mud Lake	May 30/2019	Mike Koziol				Oliver Severn	grab	qtz vein	Cp 10%, Py 10%	high grade qtz vein, 10 % cp, 10% py from Oliver Severn, sample for S&T collected
E5924708	Mud Lake	Jun 1/2019	Mike Koziol					standard			CDN GS-P4A 0.438 +/- 0.037 g/t

Nikolay Bashaev

188416	Mud Lake	July 22, 2018	Nikolay Bashaev	451177	5513166	Outcrop	Grab	granodiorite	granodiorite, weakly sheared, grey, looks fresh, mg-cg, trace of k-fldspr, nvs
188417	Mud Lake	July 22, 2018	Nikolay Bashaev	451464	5513417	Outcrop	Grab	diorite	diorite, grey, fg to mg, nvs, mafic boulder about 5 m away from the station
188418	Mud Lake	July 23, 2018	Nikolay Bashaev	446732	5510716	Outcrop	Grab	granodiorite	outcrop, small, area is cleared due to logging, covered by moss and vegetation with very poor bed rock exposure, greyish-greenish, mg, nvs,
188419	Mud Lake	July 23, 2018	Nikolay Bashaev	446969	5510161	Outcrop	Grab	diorite	outcrop, very small, clearing is offset from the main logging area, extensively covered by vegetation, very poor exposure of bedrock, presence of diorite and mafic boulders, grey, mg-cg, trace of k-fldspr, nvs
188420	Mud Lake	July 24, 2018	Nikolay Bashaev	448187	5511414	Outcrop	Grab	diorite	diorite, grey, mg-cg, trace of k-fldspr, nvs, trace of qtz
188421	Mud Lake	July 24, 2018	Nikolay Bashaev	449440	5512894	Outcrop	Grab	diorite	outcrop, diorite, 2 sets of pinkish qtz veins; #1 set is qtz veins with thickness 8-10 cm and Az of 310 degrees; #2 set is qtz veinlets with thickness 2-4 cm and Az 10 degrees; two sets cross cut each other
188422	Mud Lake	July 24, 2018	Nikolay Bashaev	449590	5512972	Outcrop	Grab	diorite	outcrop, diorite, presence of qtz patches, qtz, white to light pink, weak FeC alteration, nvs
188423	Mud Lake	July 24, 2018	Nikolay Bashaev	449682	5512785	Outcrop	Grab	diorite	outcrop, weakly sheared diorite, qtz stockwork, Az of qtz strings 250 degrees, qtz and diorite; qtz is white to greyish, nvs; diorite is weakly sheared, mg, weak to moderate FeC alteration, nvs



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: 18B367072

SOLID ANALYSIS REVIEWED BY: Sherin Moussa, Senior Technician

DATE REPORTED: Sep 10, 2018

PAGES (INCLUDING COVER): 19

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: 18B367072

PROJECT:

5623 McADAM ROAD
 MISSISSAUGA, ONTARIO
 CANADA L4Z 1N9
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 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: Sep 10, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte: Unit: RDL:	Sample Login Weight kg 0.01
106760 (9429271)		0.822
106761 (9429272)		2.146
106762 (9429273)		1.538
106785 (9429274)		0.672
106786 (9429275)		0.610
106787 (9429276)		0.890
106788 (9429277)		1.234
106789 (9429278)		1.662
106790 (9429279)		0.508
106791 (9429280)		1.308
106792 (9429281)		0.520
106793 (9429282)		1.502
106794 (9429283)		1.706
106795 (9429284)		1.264
106796 (9429285)		1.920
106797 (9429286)		2.730
106798 (9429287)		0.700
106799 (9429288)		1.648
106960 (9429289)		1.192
106961 (9429290)		1.462
106968 (9429291)		0.692
106969 (9429292)		0.770
106970 (9429293)		1.048
106971 (9429294)		0.910
106972 (9429295)		0.898
106973 (9429296)		1.054
106974 (9429297)		1.010
106975 (9429298)		1.054
168645 (9429299)		0.658
168646 (9429300)		1.160
168647 (9429301)		1.062

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 18B367072

PROJECT:

5623 McADAM ROAD
MISSISSAUGA, ONTARIO
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<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: Sep 10, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte:	Sample Login Weight
	Unit:	kg
	RDL:	0.01
168648 (9429302)		1.388
168649 (9429303)		0.976
168650 (9429304)		0.084
168901 (9429305)		1.046
168902 (9429306)		1.092
168903 (9429307)		1.400
168904 (9429308)		2.238
188416 (9429309)		1.170
188417 (9429310)		1.000
188418 (9429311)		1.202
188419 (9429312)		1.186
188420 (9429313)		1.646
188421 (9429314)		1.176
188422 (9429315)		1.722
188423 (9429316)		0.844

Comments: RDL - Reported Detection Limit

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 18B367072

PROJECT:

5623 McADAM ROAD
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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: Sep 10, 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
106760 (9429271)		<0.2	1.67	4	40	93	<0.5	<1	0.33	<0.5	12	10.6	78.9	17.1	3.16
106761 (9429272)		<0.2	1.45	4	36	42	<0.5	<1	2.33	<0.5	36	11.3	24.7	39.5	2.77
106762 (9429273)		<0.2	0.57	4	22	37	<0.5	<1	1.42	<0.5	53	7.0	19.5	10.8	1.56
106785 (9429274)		0.2	1.91	1	50	51	<0.5	4	1.31	<0.5	51	13.1	21.0	345	3.57
106786 (9429275)		<0.2	2.93	2	94	80	<0.5	1	0.32	<0.5	48	20.8	11.9	2.4	6.71
106787 (9429276)		<0.2	2.31	1	71	17	<0.5	<1	0.05	<0.5	<1	11.6	25.9	8.0	5.19
106788 (9429277)		<0.2	1.47	4	40	39	<0.5	<1	1.00	<0.5	35	11.4	24.7	1.0	2.96
106789 (9429278)		<0.2	0.35	3	82	19	<0.5	<1	8.92	<0.5	14	19.8	7.0	29.7	5.71
106790 (9429279)		<0.2	4.12	<1	120	101	<0.5	<1	1.08	<0.5	3	40.9	92.3	4.6	8.86
106791 (9429280)		<0.2	0.89	3	24	64	<0.5	<1	0.45	<0.5	43	7.3	19.3	8.0	1.84
106792 (9429281)		<0.2	1.27	9	30	118	<0.5	<1	0.93	1.2	47	13.9	18.7	70.3	2.23
106793 (9429282)		<0.2	0.34	3	20	76	<0.5	<1	9.88	<0.5	18	8.7	5.6	4.4	1.56
106794 (9429283)		<0.2	1.07	3	30	109	<0.5	<1	1.35	<0.5	33	20.6	14.3	2.0	2.24
106795 (9429284)		<0.2	1.65	5	45	96	<0.5	<1	0.08	<0.5	10	13.8	28.0	16.6	3.47
106796 (9429285)		<0.2	0.77	5	19	93	<0.5	<1	0.19	<0.5	35	5.6	17.3	5.7	1.40
106797 (9429286)		<0.2	0.36	4	21	55	<0.5	<1	0.63	<0.5	39	7.1	23.4	5.1	1.56
106798 (9429287)		<0.2	0.89	3	23	25	<0.5	<1	0.34	<0.5	18	6.7	36.0	12.0	1.75
106799 (9429288)		<0.2	2.44	4	56	42	<0.5	<1	0.15	<0.5	28	15.0	19.8	1.4	4.10
106960 (9429289)		<0.2	1.18	5	38	69	<0.5	<1	1.70	<0.5	39	14.4	37.7	14.0	2.95
106961 (9429290)		<0.2	0.30	4	15	1210	<0.5	<1	1.99	<0.5	39	5.9	20.3	8.7	1.09
106968 (9429291)		<0.2	1.71	4	39	62	<0.5	<1	1.38	<0.5	42	11.5	17.7	13.5	2.95
106969 (9429292)		<0.2	1.31	5	35	96	<0.5	<1	1.38	<0.5	50	10.6	17.2	1.1	2.73
106970 (9429293)		<0.2	0.59	2	18	75	<0.5	<1	0.21	<0.5	34	5.2	41.1	3.2	1.25
106971 (9429294)		<0.2	1.54	4	39	54	<0.5	<1	0.83	<0.5	34	14.0	22.0	29.3	2.87
106972 (9429295)		<0.2	2.15	15	72	78	<0.5	<1	0.82	<0.5	66	16.4	23.0	1.5	5.36
106973 (9429296)		<0.2	1.14	2	24	97	<0.5	<1	0.60	<0.5	34	7.7	33.8	2.4	1.81
106974 (9429297)		19.5	0.02	15	28	21	<0.5	<1	0.02	<0.5	<1	2.7	45.2	1470	2.12
106975 (9429298)		0.7	1.64	3	58	29	<0.5	<1	0.64	<0.5	2	17.3	62.0	390	4.34
168645 (9429299)		<0.2	2.53	<1	80	50	<0.5	<1	0.26	<0.5	18	16.0	26.5	3.8	5.95
168646 (9429300)		<0.2	2.63	19	91	67	<0.5	2	0.14	<0.5	22	28.6	29.4	2.3	7.28
168647 (9429301)		<0.2	1.51	2	45	60	<0.5	<1	1.33	<0.5	36	13.1	28.2	3.4	3.31
168648 (9429302)		<0.2	0.36	4	65	13	<0.5	<1	10.5	<0.5	21	13.4	7.7	1910	4.89

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 18B367072

PROJECT:

5623 McADAM ROAD
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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: Sep 10, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte: Unit: RDL:	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cu ppm	Fe %
		0.2	0.01	1	5	1	0.5	1	0.01	0.5	1	0.5	0.5	0.5	0.01
168649 (9429303)		<0.2	1.97	2	71	21	<0.5	<1	3.49	<0.5	37	21.9	31.0	30.0	5.42
168650 (9429304)		<0.2	0.99	54	41	118	<0.5	<1	1.16	<0.5	11	7.4	25.4	51.5	2.85
168901 (9429305)		<0.2	2.35	2	61	53	<0.5	<1	0.64	<0.5	46	16.5	33.0	3.9	4.69
168902 (9429306)		<0.2	1.03	4	28	68	<0.5	<1	1.87	<0.5	17	8.2	21.0	2.5	2.10
168903 (9429307)		0.4	0.21	1	13	32	<0.5	<1	0.22	<0.5	63	13.4	28.2	3.8	0.96
168904 (9429308)		0.5	0.64	12	48	146	<0.5	1	0.44	<0.5	8	12.9	18.1	22.7	3.54
188416 (9429309)		0.3	1.18	4	33	46	<0.5	<1	1.45	<0.5	40	10.3	23.2	6.4	2.49
188417 (9429310)		0.3	1.00	2	24	29	<0.5	<1	0.59	<0.5	27	7.4	20.7	10.0	1.88
188418 (9429311)		0.2	1.07	1	27	35	<0.5	<1	0.43	<0.5	21	11.0	33.9	23.4	2.04
188419 (9429312)		<0.2	0.94	3	29	53	<0.5	<1	0.99	<0.5	45	8.1	16.8	18.4	2.27
188420 (9429313)		<0.2	1.17	<1	28	74	<0.5	<1	0.51	<0.5	30	11.3	33.1	20.7	2.14
188421 (9429314)		<0.2	1.25	4	33	55	<0.5	<1	0.95	<0.5	39	10.3	27.6	1.9	2.64
188422 (9429315)		<0.2	0.19	3	7	21	<0.5	<1	0.68	<0.5	18	1.7	26.9	1.6	0.45
188423 (9429316)		<0.2	1.26	<1	34	21	<0.5	<1	0.12	<0.5	9	11.4	25.3	4.9	2.61

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 18B367072

PROJECT:

5623 McADAM ROAD
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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: Sep 10, 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
106760 (9429271)		18	<1	<1	1.14	6	21	1.13	194	3.3	0.07	43.2	430	4.6	68
106761 (9429272)		15	1	<1	0.15	16	18	0.94	695	3.0	0.04	38.7	445	1.0	<10
106762 (9429273)		8	<1	<1	0.12	23	6	0.36	497	4.1	0.04	27.9	279	7.8	<10
106785 (9429274)		18	<1	<1	0.13	24	32	0.96	828	4.0	0.02	39.8	534	3.7	<10
106786 (9429275)		28	1	<1	0.28	17	48	1.27	1090	1.9	<0.01	33.0	482	4.0	12
106787 (9429276)		28	<1	<1	<0.01	<1	34	1.53	370	5.8	<0.01	45.7	26	7.1	<10
106788 (9429277)		15	1	<1	0.15	17	19	0.77	532	2.8	0.02	34.5	472	1.6	<10
106789 (9429278)		24	<1	<1	<0.01	8	8	2.62	4030	5.7	<0.01	52.2	1520	2.4	<10
106790 (9429279)		36	<1	<1	0.30	2	41	3.06	1270	1.2	<0.01	91.3	244	1.7	27
106791 (9429280)		11	<1	<1	0.18	18	9	0.51	346	3.7	0.04	27.8	273	2.6	11
106792 (9429281)		13	<1	<1	0.46	20	16	0.69	398	8.1	<0.01	38.9	618	16.7	26
106793 (9429282)		<5	2	<1	0.28	10	3	0.12	921	2.0	<0.01	7.4	373	4.3	19
106794 (9429283)		11	1	<1	0.36	15	13	0.65	388	2.3	0.01	22.5	803	0.8	18
106795 (9429284)		17	2	<1	0.25	4	18	1.00	384	5.7	0.04	64.8	85	3.0	15
106796 (9429285)		10	<1	<1	0.25	16	5	0.43	178	3.8	0.04	25.7	216	1.9	15
106797 (9429286)		<5	<1	<1	0.10	19	3	0.19	196	5.1	0.07	26.8	167	0.9	<10
106798 (9429287)		12	<1	<1	0.04	9	9	0.60	266	5.8	0.05	41.9	317	1.7	<10
106799 (9429288)		21	1	<1	0.12	15	30	1.97	416	3.5	<0.01	28.9	242	5.9	<10
106960 (9429289)		15	<1	<1	0.17	17	14	0.99	496	5.4	0.05	44.8	472	4.0	<10
106961 (9429290)		11	1	<1	0.23	18	5	0.81	396	2.6	0.05	43.9	486	7.6	14
106968 (9429291)		15	1	<1	0.20	20	26	1.13	1380	3.8	<0.01	32.2	458	10.9	<10
106969 (9429292)		14	<1	<1	0.31	21	13	0.70	606	3.6	0.02	30.4	563	4.9	18
106970 (9429293)		8	1	<1	0.19	14	6	0.28	218	10.3	<0.01	49.6	326	4.7	<10
106971 (9429294)		15	1	<1	0.27	15	21	0.90	414	5.5	0.01	44.5	712	4.3	15
106972 (9429295)		18	<1	<1	0.26	30	19	1.21	579	2.9	<0.01	31.7	441	2.1	13
106973 (9429296)		13	<1	<1	0.32	15	12	0.59	264	6.5	0.02	39.3	365	2.6	28
106974 (9429297)		<5	<1	<1	<0.01	<1	<1	<0.01	43	10.0	<0.01	59.2	26	1.0	<10
106975 (9429298)		18	<1	<1	0.03	<1	16	1.02	523	9.7	<0.01	54.7	137	<0.5	<10
168645 (9429299)		20	<1	<1	0.09	7	54	1.02	1010	4.8	<0.01	15.2	365	1.7	14
168646 (9429300)		24	<1	<1	0.16	12	32	1.06	711	9.5	<0.01	22.0	487	5.9	14
168647 (9429301)		15	1	<1	0.16	17	18	0.76	688	4.8	<0.01	25.1	493	2.0	12
168648 (9429302)		16	<1	<1	<0.01	12	9	2.72	8430	46.8	<0.01	16.7	388	4.0	<10

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 18B367072

PROJECT:

5623 McADAM ROAD
MISSISSAUGA, ONTARIO
CANADA L4Z 1N9
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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: Sep 10, 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
168649 (9429303)		25	1	<1	0.04	18	46	1.86	1560	3.6	0.02	42.4	2370	0.6	<10
168650 (9429304)		12	1	<1	0.09	5	9	0.55	413	9.5	0.05	34.0	740	3.8	<10
168901 (9429305)		24	1	<1	0.17	19	32	1.56	504	5.9	0.02	28.6	461	<0.5	<10
168902 (9429306)		11	1	<1	0.31	8	14	0.61	383	4.0	<0.01	23.8	498	1.4	21
168903 (9429307)		<5	<1	<1	0.08	33	2	0.07	113	7.1	0.05	4.3	53	1.1	<10
168904 (9429308)		5	<1	<1	0.30	4	4	0.22	145	4.1	<0.01	6.4	384	1.7	16
188416 (9429309)		13	<1	<1	0.10	19	13	0.73	592	2.7	0.04	18.0	485	2.4	<10
188417 (9429310)		12	<1	<1	0.08	12	11	0.65	320	2.1	0.03	17.0	384	1.4	<10
188418 (9429311)		14	<1	<1	0.08	10	9	0.79	339	3.5	0.04	24.6	576	3.2	<10
188419 (9429312)		11	<1	<1	0.15	21	12	0.52	452	3.1	0.03	12.8	405	1.9	12
188420 (9429313)		14	1	<1	0.27	15	16	0.91	382	4.3	0.04	24.6	453	2.3	18
188421 (9429314)		14	1	<1	0.14	18	9	0.79	338	3.1	0.04	22.2	400	1.2	<10
188422 (9429315)		<5	<1	<1	0.03	7	2	0.12	88	4.2	<0.01	3.4	113	1.6	<10
188423 (9429316)		16	<1	<1	0.04	4	16	0.93	341	3.8	0.02	24.0	195	1.8	<10

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 18B367072

PROJECT:

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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: Sep 10, 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	
RDL:	0.01	1	0.5	10	5	0.5	10	10	5	0.01	5	5	0.5	1	
106760 (9429271)	0.02	1	2.3	<10	<5	11.9	<10	<10	<5	0.16	<5	<5	47.7	<1	
106761 (9429272)	<0.01	<1	1.7	<10	<5	53.9	<10	<10	<5	<0.01	8	<5	16.1	<1	
106762 (9429273)	0.04	<1	0.8	<10	<5	40.5	<10	<10	<5	<0.01	<5	<5	8.0	<1	
106785 (9429274)	<0.01	<1	1.3	<10	<5	22.8	<10	<10	<5	<0.01	<5	<5	14.8	<1	
106786 (9429275)	<0.01	1	2.8	<10	<5	29.2	<10	<10	<5	0.05	<5	5	24.5	<1	
106787 (9429276)	<0.01	1	3.2	<10	<5	3.7	<10	<10	<5	<0.01	<5	10	28.6	<1	
106788 (9429277)	<0.01	<1	1.6	<10	<5	19.8	<10	<10	<5	0.04	<5	<5	14.4	<1	
106789 (9429278)	<0.01	<1	3.6	<10	<5	98.3	<10	<10	<5	<0.01	7	<5	99.3	<1	
106790 (9429279)	0.02	2	9.1	<10	<5	13.6	<10	<10	<5	0.07	5	13	100	<1	
106791 (9429280)	<0.01	<1	1.8	<10	<5	6.8	<10	<10	<5	0.06	<5	<5	12.4	<1	
106792 (9429281)	0.03	<1	1.5	<10	<5	6.5	<10	<10	<5	0.08	<5	<5	12.9	<1	
106793 (9429282)	0.03	<1	<0.5	<10	5	208	<10	<10	<5	0.04	<5	<5	5.8	<1	
106794 (9429283)	0.20	<1	1.0	<10	<5	33.8	<10	<10	<5	0.08	<5	<5	10.8	<1	
106795 (9429284)	<0.01	1	2.2	<10	<5	2.9	<10	<10	<5	0.04	<5	6	21.6	<1	
106796 (9429285)	0.02	<1	<0.5	<10	<5	5.8	<10	<10	<5	<0.01	<5	<5	7.3	<1	
106797 (9429286)	0.03	<1	0.9	<10	<5	28.4	<10	<10	<5	<0.01	<5	<5	11.5	<1	
106798 (9429287)	<0.01	<1	2.0	<10	<5	26.5	<10	<10	<5	0.09	<5	<5	23.0	<1	
106799 (9429288)	<0.01	<1	1.4	<10	<5	2.7	<10	<10	<5	0.04	<5	<5	15.1	<1	
106960 (9429289)	0.02	<1	2.8	<10	<5	55.4	<10	<10	<5	<0.01	<5	<5	24.0	<1	
106961 (9429290)	0.05	<1	0.8	<10	<5	122	<10	<10	<5	<0.01	7	<5	5.0	<1	
106968 (9429291)	<0.01	<1	1.2	<10	<5	24.7	<10	<10	<5	0.01	6	<5	9.7	<1	
106969 (9429292)	0.03	<1	1.9	<10	<5	23.9	<10	<10	<5	0.08	<5	<5	11.9	<1	
106970 (9429293)	<0.01	<1	1.4	<10	<5	11.1	<10	<10	<5	0.04	6	<5	7.9	<1	
106971 (9429294)	0.01	<1	1.1	<10	<5	12.0	<10	<10	<5	<0.01	10	<5	13.2	<1	
106972 (9429295)	0.12	<1	1.5	<10	<5	18.5	<10	<10	<5	0.01	7	<5	16.5	<1	
106973 (9429296)	<0.01	<1	3.2	<10	<5	39.8	<10	<10	<5	0.14	<5	<5	20.7	<1	
106974 (9429297)	0.79	<1	<0.5	<10	<5	1.6	<10	<10	<5	<0.01	<5	<5	2.8	<1	
106975 (9429298)	0.03	<1	9.8	<10	<5	7.5	<10	<10	<5	0.09	<5	7	98.4	<1	
168645 (9429299)	<0.01	<1	1.6	<10	<5	4.4	<10	<10	<5	<0.01	<5	7	17.8	<1	
168646 (9429300)	<0.01	1	2.6	<10	<5	6.1	<10	<10	<5	0.04	<5	9	20.1	<1	
168647 (9429301)	<0.01	<1	0.8	<10	<5	22.2	<10	<10	<5	<0.01	<5	<5	9.7	<1	
168648 (9429302)	0.14	<1	3.3	<10	<5	69.5	<10	<10	<5	<0.01	8	<5	55.1	<1	

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 18B367072

PROJECT:

5623 McADAM ROAD
 MISSISSAUGA, ONTARIO
 CANADA L4Z 1N9
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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: Sep 10, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte: Unit: RDL:	S % 0.01	Sb ppm 1	Sc ppm 0.5	Se ppm 10	Sn ppm 5	Sr ppm 0.5	Ta ppm 10	Te ppm 10	Th ppm 5	Ti % 0.01	Tl ppm 5	U ppm 5	V ppm 0.5	W ppm 1
168649 (9429303)		<0.01	<1	8.2	<10	<5	33.9	<10	<10	<5	<0.01	<5	<5	87.6	<1
168650 (9429304)		0.10	<1	3.8	<10	<5	33.6	<10	<10	<5	0.09	<5	<5	47.3	<1
168901 (9429305)		<0.01	<1	1.8	<10	<5	9.7	<10	<10	<5	<0.01	<5	<5	19.3	<1
168902 (9429306)		<0.01	1	0.8	<10	<5	22.9	<10	<10	<5	<0.01	<5	<5	8.2	<1
168903 (9429307)		0.16	<1	<0.5	<10	<5	11.3	<10	<10	7	<0.01	<5	<5	1.6	<1
168904 (9429308)		1.33	<1	<0.5	<10	<5	5.2	<10	<10	<5	<0.01	7	<5	3.6	<1
188416 (9429309)		<0.01	<1	2.3	<10	<5	31.5	<10	<10	<5	0.03	<5	<5	19.5	<1
188417 (9429310)		<0.01	<1	1.5	<10	<5	17.2	<10	<10	<5	0.06	<5	<5	15.1	<1
188418 (9429311)		0.01	<1	2.0	<10	<5	22.3	<10	<10	<5	0.13	<5	<5	35.9	<1
188419 (9429312)		<0.01	1	1.5	<10	<5	24.4	<10	<10	<5	0.02	<5	<5	11.9	<1
188420 (9429313)		<0.01	<1	2.6	<10	<5	48.2	<10	<10	<5	0.13	<5	<5	27.0	<1
188421 (9429314)		<0.01	<1	1.9	<10	<5	19.3	<10	<10	<5	<0.01	7	<5	22.1	<1
188422 (9429315)		<0.01	<1	1.3	<10	<5	5.4	<10	<10	<5	0.03	6	<5	5.3	<1
188423 (9429316)		<0.01	2	1.6	<10	<5	6.2	<10	<10	<5	0.05	<5	<5	28.5	<1

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 18B367072

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: Sep 10, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte: Unit: RDL:	Y ppm 1	Zn ppm 0.5	Zr ppm 5
106760 (9429271)		2	25.2	8
106761 (9429272)		4	49.8	11
106762 (9429273)		8	48.5	13
106785 (9429274)		6	65.3	17
106786 (9429275)		11	92.8	20
106787 (9429276)		<1	116	<5
106788 (9429277)		6	32.7	12
106789 (9429278)		7	40.4	<5
106790 (9429279)		7	199	8
106791 (9429280)		10	37.7	15
106792 (9429281)		10	77.0	11
106793 (9429282)		5	0.6	28
106794 (9429283)		6	31.7	19
106795 (9429284)		5	38.2	7
106796 (9429285)		4	12.7	16
106797 (9429286)		4	6.0	12
106798 (9429287)		4	25.2	<5
106799 (9429288)		6	40.9	11
106960 (9429289)		6	59.5	12
106961 (9429290)		5	18.0	30
106968 (9429291)		8	153	21
106969 (9429292)		10	67.8	21
106970 (9429293)		7	21.5	15
106971 (9429294)		9	37.7	6
106972 (9429295)		5	34.3	11
106973 (9429296)		9	17.7	8
106974 (9429297)		<1	0.7	<5
106975 (9429298)		3	51.0	<5
168645 (9429299)		4	68.8	13
168646 (9429300)		4	53.0	12
168647 (9429301)		8	55.9	15
168648 (9429302)		9	34.9	<5

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 18B367072

PROJECT:

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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: Sep 10, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte: Unit: RDL:	Y ppm 1	Zn ppm 0.5	Zr ppm 5
168649 (9429303)		6	138	10
168650 (9429304)		8	49.5	8
168901 (9429305)		11	39.8	6
168902 (9429306)		8	22.9	7
168903 (9429307)		3	2.5	23
168904 (9429308)		5	3.6	13
188416 (9429309)		8	67.8	8
188417 (9429310)		5	36.3	13
188418 (9429311)		4	35.1	6
188419 (9429312)		11	43.9	6
188420 (9429313)		6	38.8	6
188421 (9429314)		5	36.3	10
188422 (9429315)		3	4.0	8
188423 (9429316)		2	34.3	<5

Comments: RDL - Reported Detection Limit

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 18B367072

PROJECT:

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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: Sep 10, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte:	Unit:	RDL:
	Au	ppm	0.002
106760 (9429271)			0.005
106761 (9429272)			<0.002
106762 (9429273)			<0.002
106785 (9429274)			0.019
106786 (9429275)			<0.002
106787 (9429276)			<0.002
106788 (9429277)			<0.002
106789 (9429278)			<0.002
106790 (9429279)			<0.002
106791 (9429280)			<0.002
106792 (9429281)			<0.002
106793 (9429282)			<0.002
106794 (9429283)			<0.002
106795 (9429284)			<0.002
106796 (9429285)			0.005
106797 (9429286)			<0.002
106798 (9429287)			<0.002
106799 (9429288)			<0.002
106960 (9429289)			<0.002
106961 (9429290)			<0.002
106968 (9429291)			0.003
106969 (9429292)			<0.002
106970 (9429293)			<0.002
106971 (9429294)			<0.002
106972 (9429295)			<0.002
106973 (9429296)			<0.002
106974 (9429297)			0.215
106975 (9429298)			0.005
168645 (9429299)			0.006
168646 (9429300)			0.008
168647 (9429301)			<0.002
168648 (9429302)			0.044

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 18B367072

PROJECT:

5623 McADAM ROAD
MISSISSAUGA, ONTARIO
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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: Sep 10, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte:	Unit:	RDL:
	Au	ppm	0.002
168649 (9429303)			0.002
168650 (9429304)			0.413
168901 (9429305)			<0.002
168902 (9429306)			<0.002
168903 (9429307)			0.006
168904 (9429308)			0.103
188416 (9429309)			<0.002
188417 (9429310)			<0.002
188418 (9429311)			<0.002
188419 (9429312)			<0.002
188420 (9429313)			<0.002
188421 (9429314)			<0.002
188422 (9429315)			<0.002
188423 (9429316)			<0.002

Comments: RDL - Reported Detection Limit

Certified By:



AGAT Laboratories

Certificate of Analysis

AGAT WORK ORDER: 18B367072

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: Sep 10, 2018

SAMPLE TYPE: Rock

Analyte:	Pass %
Unit:	%
Sample ID (AGAT ID)	RDL:
106796 (9429285)	90.6

Comments: RDL - Reported Detection Limit

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 18B367072

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: Sep 10, 2018

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte:	Pass %
	Unit:	%
	RDL:	0.01
106760 (9429271)		98
168645 (9429299)		97

Comments: RDL - Reported Detection Limit

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	9429271	< 0.2	< 0.2	0.0%	9429282	< 0.2	< 0.2	0.0%	9429295	< 0.2	< 0.2	0.0%	9429306	< 0.2	< 0.2	0.0%
Al	9429271	1.67	1.71	2.4%	9429282	0.338	0.332	1.8%	9429295	2.15	2.23	3.7%	9429306	1.03	1.04	1.0%
As	9429271	4	5	22.2%	9429282	3	< 1		9429295	15	13	14.3%	9429306	4	2	
B	9429271	40	43	7.2%	9429282	20	22	9.5%	9429295	72	73	1.4%	9429306	28	27	3.6%
Ba	9429271	93	96	3.2%	9429282	76	75	1.3%	9429295	78	86	9.8%	9429306	68	64	6.1%
Be	9429271	< 0.5	< 0.5	0.0%	9429282	< 0.5	< 0.5	0.0%	9429295	< 0.5	< 0.5	0.0%	9429306	< 0.5	< 0.5	0.0%
Bi	9429271	< 1	< 1	0.0%	9429282	< 1	< 1	0.0%	9429295	< 1	< 1	0.0%	9429306	< 1	< 1	0.0%
Ca	9429271	0.33	0.36	8.7%	9429282	9.88	9.74	1.4%	9429295	0.82	0.83	1.2%	9429306	1.87	1.79	4.4%
Cd	9429271	< 0.5	< 0.5	0.0%	9429282	< 0.5	< 0.5	0.0%	9429295	< 0.5	< 0.5	0.0%	9429306	< 0.5	< 0.5	0.0%
Ce	9429271	12	12	0.0%	9429282	18	19	5.4%	9429295	66	66	0.0%	9429306	17	17	0.0%
Co	9429271	10.6	11.4	7.3%	9429282	8.7	8.9	2.3%	9429295	16.4	16.6	1.2%	9429306	8.20	7.91	3.6%
Cr	9429271	78.9	85.7	8.3%	9429282	5.6	5.8	3.5%	9429295	23.0	21.9	4.9%	9429306	21.0	20.4	2.9%
Cu	9429271	17.1	17.7	3.4%	9429282	4.35	4.34	0.2%	9429295	1.5	1.5	0.0%	9429306	2.46	1.91	25.2%
Fe	9429271	3.16	3.21	1.6%	9429282	1.56	1.60	2.5%	9429295	5.36	5.64	5.1%	9429306	2.10	2.05	2.4%
Ga	9429271	18	20	10.5%	9429282	< 5	< 5	0.0%	9429295	18	18	0.0%	9429306	11	10	9.5%
Hg	9429271	< 1	< 1	0.0%	9429282	2	1		9429295	< 1	< 1	0.0%	9429306	1	< 1	
In	9429271	< 1	< 1	0.0%	9429282	< 1	< 1	0.0%	9429295	< 1	< 1	0.0%	9429306	< 1	< 1	0.0%
K	9429271	1.14	1.15	0.9%	9429282	0.285	0.275	3.6%	9429295	0.26	0.28	7.4%	9429306	0.305	0.302	1.0%
La	9429271	6	6	0.0%	9429282	10	10	0.0%	9429295	30	30	0.0%	9429306	8	8	0.0%
Li	9429271	21	21	0.0%	9429282	3	3	0.0%	9429295	19	19	0.0%	9429306	14	14	0.0%
Mg	9429271	1.13	1.14	0.9%	9429282	0.12	0.12	0.0%	9429295	1.21	1.24	2.4%	9429306	0.606	0.597	1.5%
Mn	9429271	194	202	4.0%	9429282	921	918	0.3%	9429295	579	592	2.2%	9429306	383	384	0.3%
Mo	9429271	3.3	4.7		9429282	2.0	2.0	0.0%	9429295	2.92	3.02	3.4%	9429306	4.0	3.9	2.5%
Na	9429271	0.074	0.092	21.7%	9429282	< 0.01	< 0.01	0.0%	9429295	< 0.01	< 0.01	0.0%	9429306	< 0.01	< 0.01	0.0%
Ni	9429271	43.2	50.2	15.0%	9429282	7.4	7.7	4.0%	9429295	31.7	30.3	4.5%	9429306	23.8	23.5	1.3%
P	9429271	430	459	6.5%	9429282	373	362	3.0%	9429295	441	427	3.2%	9429306	498	516	3.6%
Pb	9429271	4.6	4.4	4.4%	9429282	4.29	4.67	8.5%	9429295	2.10	2.18	3.7%	9429306	1.4	1.3	7.4%
Rb	9429271	68	69	1.5%	9429282	19	17	11.1%	9429295	13	12	8.0%	9429306	21	22	4.7%
S	9429271	0.02	0.02	0.0%	9429282	0.03	0.02		9429295	0.119	0.110	7.9%	9429306	< 0.01	< 0.01	0.0%
Sb	9429271	1	2		9429282	< 1	< 1	0.0%	9429295	< 1	< 1	0.0%	9429306	1	< 1	
Sc	9429271	2.34	2.61	10.9%	9429282	< 0.5	< 0.5	0.0%	9429295	1.52	1.60	5.1%	9429306	0.76	0.73	4.0%



CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

Se	9429271	< 10	< 10	0.0%	9429282	< 10	< 10	0.0%	9429295	< 10	< 10	0.0%	9429306	< 10	< 10	0.0%
Sn	9429271	< 5	< 5	0.0%	9429282	5	4	22.2%	9429295	< 5	< 5	0.0%	9429306	< 5	< 5	0.0%
Sr	9429271	11.9	14.2	17.6%	9429282	208	206	1.0%	9429295	18.5	19.4	4.7%	9429306	22.9	22.2	3.1%
Ta	9429271	< 10	< 10	0.0%	9429282	< 10	< 10	0.0%	9429295	< 10	< 10	0.0%	9429306	< 10	< 10	0.0%
Te	9429271	< 10	< 10	0.0%	9429282	< 10	< 10	0.0%	9429295	< 10	< 10	0.0%	9429306	< 10	< 10	0.0%
Th	9429271	< 5	< 5	0.0%	9429282	< 5	< 5	0.0%	9429295	< 5	< 5	0.0%	9429306	< 5	< 5	0.0%
Ti	9429271	0.16	0.16	0.0%	9429282	0.04	0.04	0.0%	9429295	0.01	0.01	0.0%	9429306	< 0.01	< 0.01	0.0%
Tl	9429271	< 5	< 5	0.0%	9429282	< 5	7		9429295	7	< 5		9429306	< 5	< 5	0.0%
U	9429271	< 5	< 5	0.0%	9429282	< 5	< 5	0.0%	9429295	< 5	< 5	0.0%	9429306	< 5	< 5	0.0%
V	9429271	47.7	50.3	5.3%	9429282	5.83	6.07	4.0%	9429295	16.5	16.9	2.4%	9429306	8.2	8.2	0.0%
W	9429271	< 1	< 1	0.0%	9429282	< 1	< 1	0.0%	9429295	< 1	< 1	0.0%	9429306	< 1	< 1	0.0%
Y	9429271	2	2	0.0%	9429282	5	5	0.0%	9429295	5	5	0.0%	9429306	8	8	0.0%
Zn	9429271	25.2	21.2	17.2%	9429282	0.6	1.8		9429295	34.3	41.1	18.0%	9429306	22.9	18.5	21.3%
Zr	9429271	8	8	0.0%	9429282	28	29	3.5%	9429295	11	12	8.7%	9429306	7	7	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	9429271	0.005	0.005	0.0%	9429282	< 0.002	< 0.002	0.0%	9429295	0.002	0.002	0.0%	9429306	< 0.002	0.585	



CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

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

Parameter	CRM #1 (ref.ME-1304)				CRM #2 (ref.ME-1303)				CRM #3 (ref.ME-1206)							
	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits				
Ag	34	33	97%	90% - 110%	152	146	96%	90% - 110%	274	271	99%	90% - 110%				
Cu	2680	2691	100%	90% - 110%	3440	3530	103%	90% - 110%	7900	7967	101%	90% - 110%				
Pb	2580	2509	97%	90% - 110%	12200	11599	95%	90% - 110%	8010	7357	92%	90% - 110%				
Zn	2200	2107	96%	90% - 110%	9310	9056	97%	90% - 110%	23800	22302	94%	90% - 110%				

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

Parameter	CRM #1 (ref.WW07)				CRM #2 (ref.WW07)				CRM #3 (ref.ME-1206)							
	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits				
Au	6.56	6.79	103%	90% - 110%	6.56	6.73	103%	90% - 110%								



Method Summary

CLIENT NAME: ALTO VENTURES LTD

AGAT WORK ORDER: 18B367072

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



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: 19T474919

SOLID ANALYSIS REVIEWED BY: Sherin Moussa, Senior Technician

DATE REPORTED: Jun 14, 2019

PAGES (INCLUDING COVER): 10

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: 19T474919

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: Jun 03, 2019 DATE RECEIVED: Jun 04, 2019 DATE REPORTED: Jun 14, 2019 SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte:	Sample Login Weight
	Unit:	kg
	RDL:	0.01
E5924651 (242625)		0.96
E5924652 (242626)		2.12
E5924653 (242627)		0.87
E5924701 (242628)		0.91
E5924702 (242629)		0.79
E5924703 (242630)		1.05
E5924704 (242631)		1.20
E5924705 (242632)		1.49
E5924706 (242633)		1.15
E5924707 (242634)		0.38
E5924708 (242635)		0.07

Comments: RDL - Reported Detection Limit

Certified By:





Certificate of Analysis

AGAT WORK ORDER: 19T474919

PROJECT:

5623 McADAM ROAD
MISSISSAUGA, ONTARIO
CANADA L4Z 1N9
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<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: Jun 03, 2019	DATE RECEIVED: Jun 04, 2019					DATE REPORTED: Jun 14, 2019					SAMPLE TYPE: Rock				
Analyte:	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cu	Fe	
Unit:	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	
RDL:	0.2	0.01	1	5	1	0.5	1	0.01	0.5	1	0.5	0.5	0.5	0.01	
Sample ID (AGAT ID)															
E5924651 (242625)	<0.2	4.57	18	40	10	<0.5	<1	5.24	<0.5	<1	44.9	174	134	7.95	
E5924652 (242626)	<0.2	5.70	<1	49	14	<0.5	<1	0.55	<0.5	7	48.9	48.2	899	10.4	
E5924653 (242627)	<0.2	0.89	<1	13	39	<0.5	<1	1.63	<0.5	39	10.6	82.4	23.9	2.83	
E5924701 (242628)	<0.2	2.14	<1	18	41	<0.5	<1	1.30	<0.5	30	18.7	65.1	26.0	3.83	
E5924702 (242629)	<0.2	1.78	2	14	31	<0.5	<1	0.75	<0.5	29	15.8	71.8	10.1	2.86	
E5924703 (242630)	<0.2	1.11	<1	16	37	<0.5	<1	2.08	<0.5	43	12.9	88.9	<0.5	3.36	
E5924704 (242631)	<0.2	2.48	<1	24	35	<0.5	<1	0.27	<0.5	32	15.0	84.6	119	4.82	
E5924705 (242632)	0.2	2.12	4	20	19	<0.5	<1	0.37	<0.5	41	14.6	93.4	836	4.51	
E5924706 (242633)	<0.2	0.85	<1	12	45	<0.5	<1	1.89	<0.5	34	9.5	107	43.2	2.67	
E5924707 (242634)	2.8	0.21	<1	15	19	<0.5	<1	0.11	<0.5	7	38.3	216	>10000	3.41	
E5924708 (242635)	<0.2	1.00	51	18	110	<0.5	<1	1.16	<0.5	9	6.9	26.7	52.4	2.89	
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	
Sample ID (AGAT ID)															
E5924651 (242625)	21	6	<1	<0.01	<1	53	4.14	1620	1.5	0.01	95.0	252	0.9	<10	
E5924652 (242626)	29	5	<1	0.04	4	76	3.71	1270	7.7	<0.01	28.6	240	<0.5	<10	
E5924653 (242627)	6	1	<1	0.13	21	13	0.44	471	8.0	0.04	14.7	455	2.9	<10	
E5924701 (242628)	8	3	<1	0.13	14	30	1.38	849	4.9	0.02	32.4	661	0.6	<10	
E5924702 (242629)	7	2	<1	0.09	14	28	1.42	417	5.1	0.05	31.9	698	1.1	<10	
E5924703 (242630)	7	1	<1	0.13	22	15	0.79	581	6.7	0.05	24.7	767	3.4	<10	
E5924704 (242631)	10	3	<1	0.19	14	26	1.77	968	7.7	<0.01	19.0	569	1.6	<10	
E5924705 (242632)	11	4	<1	0.10	22	22	1.44	953	12.3	<0.01	18.5	307	1.7	<10	
E5924706 (242633)	5	3	<1	0.14	16	12	0.49	600	9.8	0.04	17.0	426	2.2	<10	
E5924707 (242634)	7	<1	<1	0.05	3	3	0.08	132	20.4	0.03	9.9	88	<0.5	<10	
E5924708 (242635)	6	1	<1	0.10	4	8	0.59	410	10.8	0.05	33.8	785	3.4	<10	

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 19T474919

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

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

DATE SAMPLED: Jun 03, 2019		DATE RECEIVED: Jun 04, 2019					DATE REPORTED: Jun 14, 2019					SAMPLE TYPE: Rock			
Sample ID (AGAT ID)	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
	RDL:	0.01	1	0.5	10	5	0.5	10	10	5	0.01	5	5	0.5	1
E5924651 (242625)		0.14	2	10.6	<10	<5	26.0	<10	<10	<5	0.13	<5	11	171	<1
E5924652 (242626)		0.06	2	3.9	<10	<5	4.9	<10	<10	<5	0.01	<5	16	40.6	<1
E5924653 (242627)		<0.01	<1	2.2	<10	<5	22.5	<10	<10	<5	<0.01	<5	<5	13.0	<1
E5924701 (242628)		<0.01	2	2.2	<10	<5	13.1	<10	<10	<5	<0.01	<5	<5	26.3	<1
E5924702 (242629)		<0.01	1	4.0	<10	<5	21.6	<10	<10	<5	0.11	<5	<5	40.4	<1
E5924703 (242630)		<0.01	1	2.7	<10	<5	31.7	<10	<10	<5	<0.01	<5	<5	22.2	<1
E5924704 (242631)		0.01	2	1.6	<10	<5	2.5	<10	<10	<5	0.03	<5	<5	18.7	<1
E5924705 (242632)		0.19	<1	1.7	<10	<5	2.6	<10	<10	<5	<0.01	<5	<5	16.7	<1
E5924706 (242633)		0.01	1	1.8	<10	<5	33.6	<10	<10	<5	<0.01	<5	<5	10.7	<1
E5924707 (242634)		2.65	2	0.7	<10	<5	4.7	<10	<10	<5	<0.01	<5	<5	2.7	2
E5924708 (242635)		0.11	1	3.9	<10	<5	29.7	<10	<10	<5	0.07	<5	<5	45.5	<1
Sample ID (AGAT ID)	Analyte:	Y	Zn	Zr											
	Unit:	ppm	ppm	ppm											
	RDL:	1	0.5	5											
E5924651 (242625)		5	110	<5											
E5924652 (242626)		2	216	6											
E5924653 (242627)		6	47.4	13											
E5924701 (242628)		6	69.2	7											
E5924702 (242629)		7	42.7	8											
E5924703 (242630)		5	53.4	10											
E5924704 (242631)		6	110	7											
E5924705 (242632)		5	119	6											
E5924706 (242633)		6	39.3	12											
E5924707 (242634)		1	9.0	<5											
E5924708 (242635)		8	49.2	7											

Comments: RDL - Reported Detection Limit

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 19T474919

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

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

DATE SAMPLED: Jun 03, 2019	DATE RECEIVED: Jun 04, 2019	DATE REPORTED: Jun 14, 2019	SAMPLE TYPE: Rock
Analyte: Au	Unit: ppm	RDL: 0.002	
Sample ID (AGAT ID)			
E5924651 (242625)		0.028	
E5924652 (242626)		0.007	
E5924653 (242627)		0.002	
E5924701 (242628)		<0.002	
E5924702 (242629)		<0.002	
E5924703 (242630)		<0.002	
E5924704 (242631)		0.003	
E5924705 (242632)		0.011	
E5924706 (242633)		<0.002	
E5924707 (242634)		0.080	
E5924708 (242635)		0.504	

Comments: RDL - Reported Detection Limit

Certified By:



AGAT Laboratories

Certificate of Analysis

AGAT WORK ORDER: 19T474919

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: Jun 03, 2019

DATE RECEIVED: Jun 04, 2019

DATE REPORTED: Jun 14, 2019

SAMPLE TYPE: Rock

Analyte:	Pass %
Unit:	%
Sample ID (AGAT ID)	RDL:
E5924651 (242625)	89

Comments: RDL - Reported Detection Limit

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							
	Sample ID	Original	Replicate	RPD	Sample ID	Original	Replicate	RPD				
Ag	242625	< 0.2	< 0.2	0.0%	242634	2.81	2.88	2.5%				
Al	242625	4.57	4.41	3.6%	242634	0.21	0.21	0.0%				
As	242625	18	15	18.2%	242634	< 1	2					
B	242625	40	37	7.8%	242634	15	16	6.5%				
Ba	242625	10	9	10.5%	242634	19	20	5.1%				
Be	242625	< 0.5	< 0.5	0.0%	242634	< 0.5	< 0.5	0.0%				
Bi	242625	< 1	< 1	0.0%	242634	< 1	< 1	0.0%				
Ca	242625	5.24	4.84	7.9%	242634	0.11	0.11	0.0%				
Cd	242625	< 0.5	< 0.5	0.0%	242634	< 0.5	< 0.5	0.0%				
Ce	242625	< 1	< 1	0.0%	242634	7	6	15.4%				
Co	242625	44.9	43.7	2.7%	242634	38.3	38.5	0.5%				
Cr	242625	174	163	6.5%	242634	216	202	6.7%				
Cu	242625	134	136	1.5%	242634	27700	28000	1.1%				
Fe	242625	7.95	7.65	3.8%	242634	3.41	3.40	0.3%				
Ga	242625	21	21	0.0%	242634	7	7	0.0%				
Hg	242625	6	5	18.2%	242634	< 1	< 1	0.0%				
In	242625	< 1	< 1	0.0%	242634	< 1	< 1	0.0%				
K	242625	< 0.01	< 0.01	0.0%	242634	0.05	0.05	0.0%				
La	242625	< 1	< 1	0.0%	242634	3	3	0.0%				
Li	242625	53	51	3.8%	242634	3	3	0.0%				
Mg	242625	4.14	3.99	3.7%	242634	0.08	0.08	0.0%				
Mn	242625	1620	1550	4.4%	242634	132	132	0.0%				
Mo	242625	1.5	1.8	18.2%	242634	20.4	20.0	2.0%				
Na	242625	0.01	0.01	0.0%	242634	0.03	0.03	0.0%				
Ni	242625	95.0	90.8	4.5%	242634	9.89	9.42	4.9%				
P	242625	252	258	2.4%	242634	88	91	3.4%				
Pb	242625	0.9	< 0.5		242634	< 0.5	< 0.5	0.0%				
Rb	242625	< 10	< 10	0.0%	242634	< 10	< 10	0.0%				
S	242625	0.14	0.13	7.4%	242634	2.65	2.67	0.8%				
Sb	242625	2	2	0.0%	242634	2	2	0.0%				
Sc	242625	10.6	9.8	7.8%	242634	0.7	0.7	0.0%				



CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

Se	242625	< 10	< 10	0.0%	242634	< 10	< 10	0.0%												
Sn	242625	< 5	< 5	0.0%	242634	< 5	< 5	0.0%												
Sr	242625	26.0	23.8	8.8%	242634	4.65	4.59	1.3%												
Ta	242625	< 10	< 10	0.0%	242634	< 10	< 10	0.0%												
Te	242625	< 10	< 10	0.0%	242634	< 10	< 10	0.0%												
Th	242625	< 5	< 5	0.0%	242634	< 5	< 5	0.0%												
Ti	242625	0.13	0.11	16.7%	242634	< 0.01	< 0.01	0.0%												
Tl	242625	< 5	< 5	0.0%	242634	< 5	< 5	0.0%												
U	242625	11	11	0.0%	242634	< 5	< 5	0.0%												
V	242625	171	164	4.2%	242634	2.7	2.5	7.7%												
W	242625	< 1	< 1	0.0%	242634	2	1													
Y	242625	5	4	22.2%	242634	1	1	0.0%												
Zn	242625	110	105	4.7%	242634	9.02	9.22	2.2%												
Zr	242625	< 5	< 5	0.0%	242634	< 5	< 5	0.0%												

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

Parameter	REPLICATE #1				REPLICATE #2																
	Sample ID	Original	Replicate	RPD	Sample ID	Original	Replicate	RPD													
Au	242625	0.028	0.047		242634	0.080	0.079	1.3%													



CLIENT NAME: ALTO VENTURES LTD

ATTENTION TO: MIKE KOZIOL

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

CRM #1 (ref.ME-1303)														
Parameter	Expect	Actual	Recovery	Limits										
Ag	152	158	104%	90% - 110%										
Cu	3440	3689	107%	90% - 110%										
Pb	12200	12455	102%	90% - 110%										
Zn	9310	9784	105%	90% - 110%										

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

CRM #1 (ref.GSP5G)														
Parameter	Expect	Actual	Recovery	Limits										
Au	0.562	0.561	100%	90% - 110%										



Method Summary

CLIENT NAME: ALTO VENTURES LTD

AGAT WORK ORDER: 19T474919

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			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-12019, MIN-12004		AA
Pass %			BALANCE

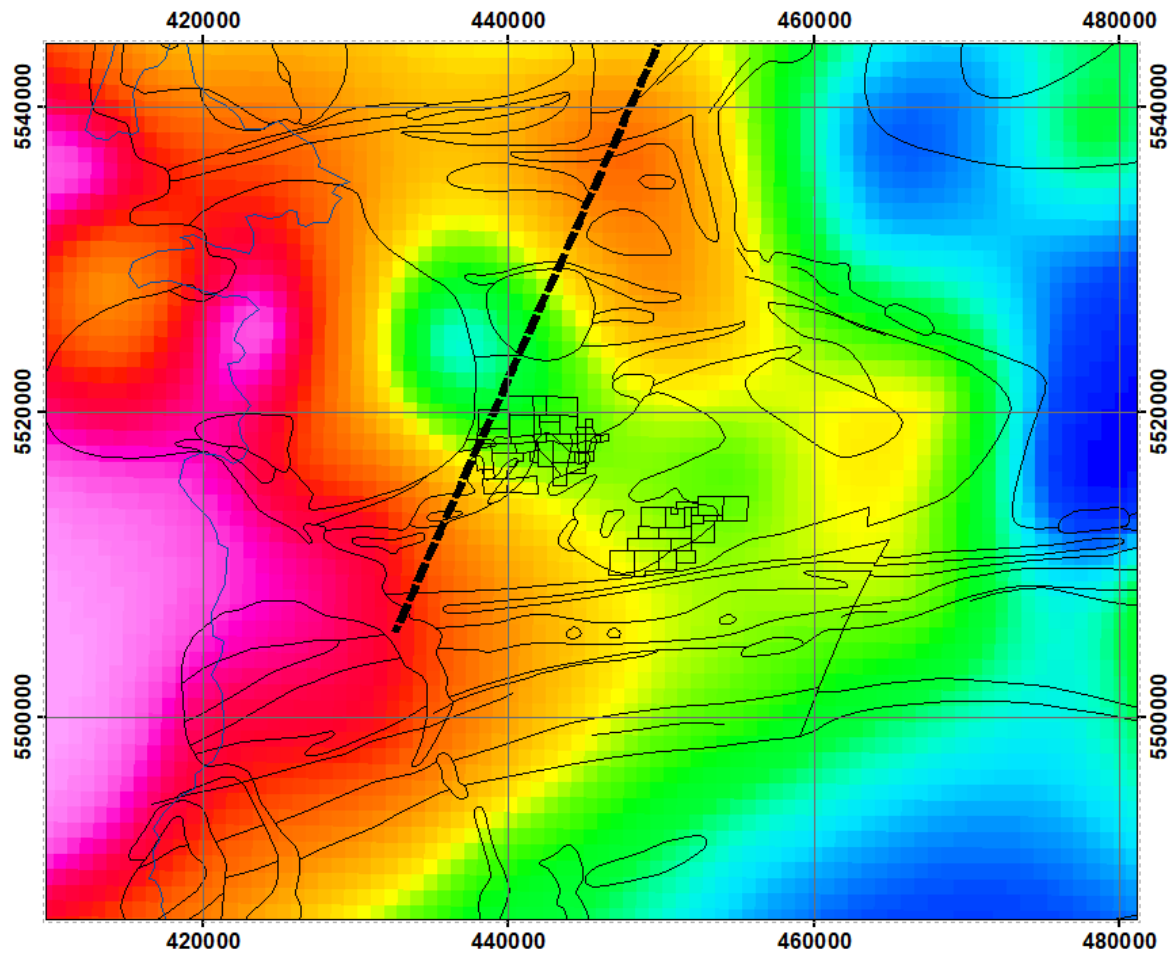
APPENDIX E
GEOPHYSICAL INTERPRETATION

Mud Lake Geophysical Interpretation

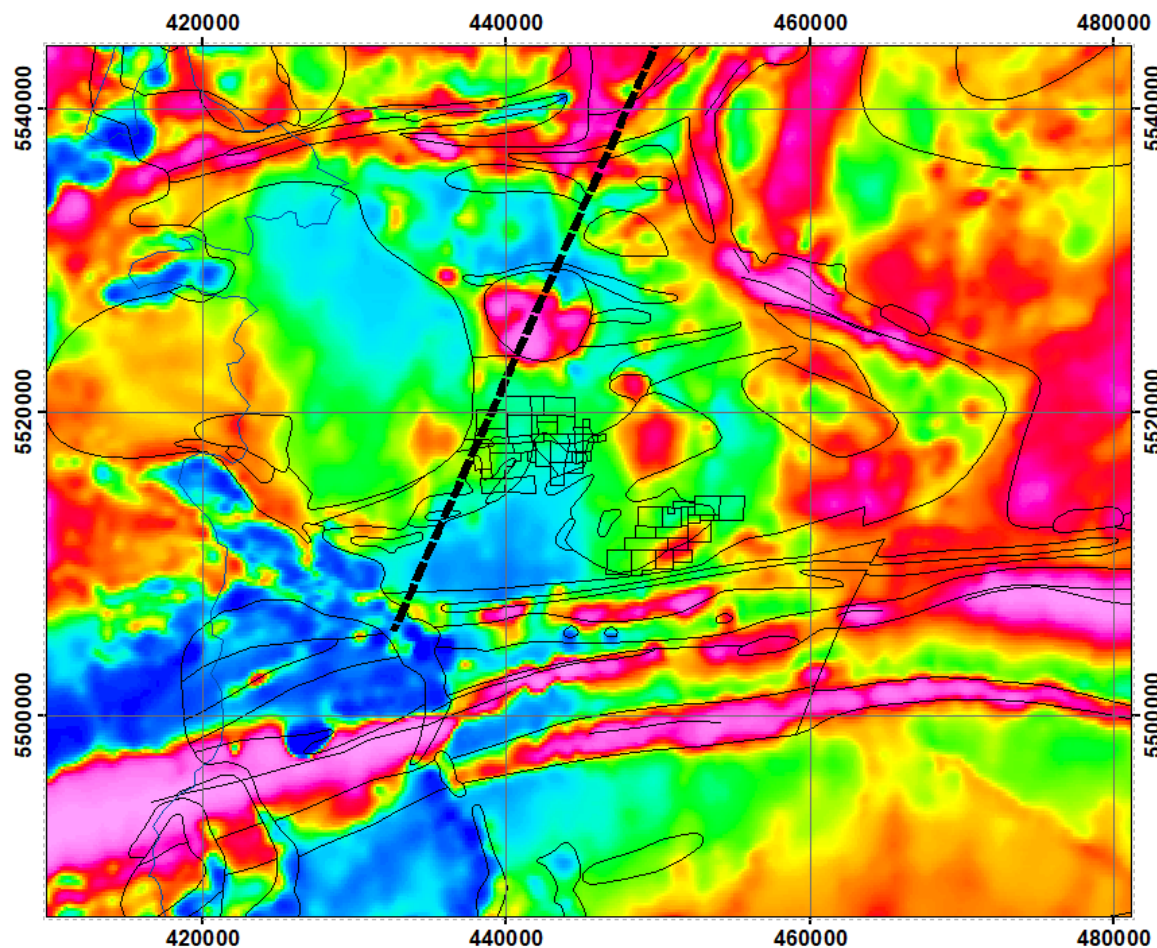
A. King

Jan 2018

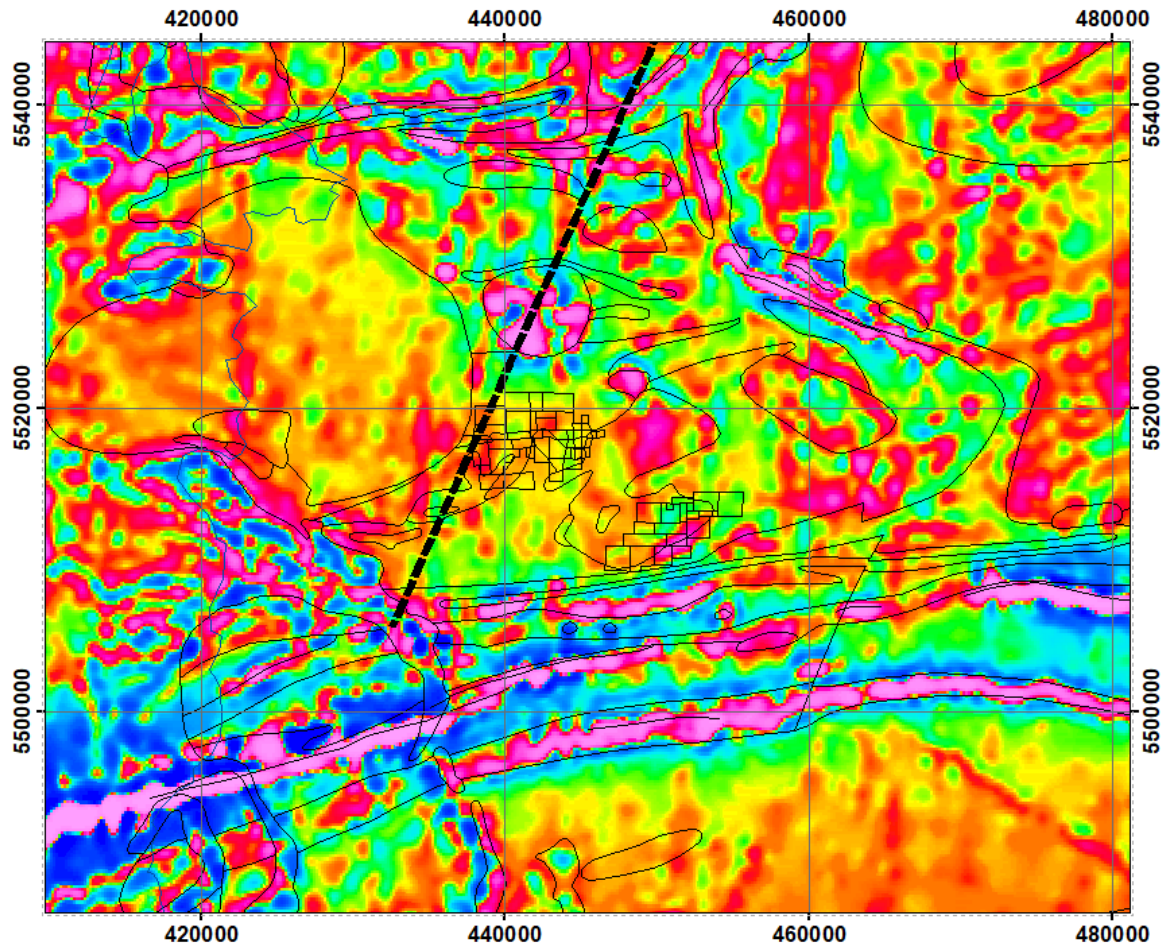
Ontario Regional Gravity with Miner and Mud Lake Properties with OGS geology outline and Proposed Terrain Boundary



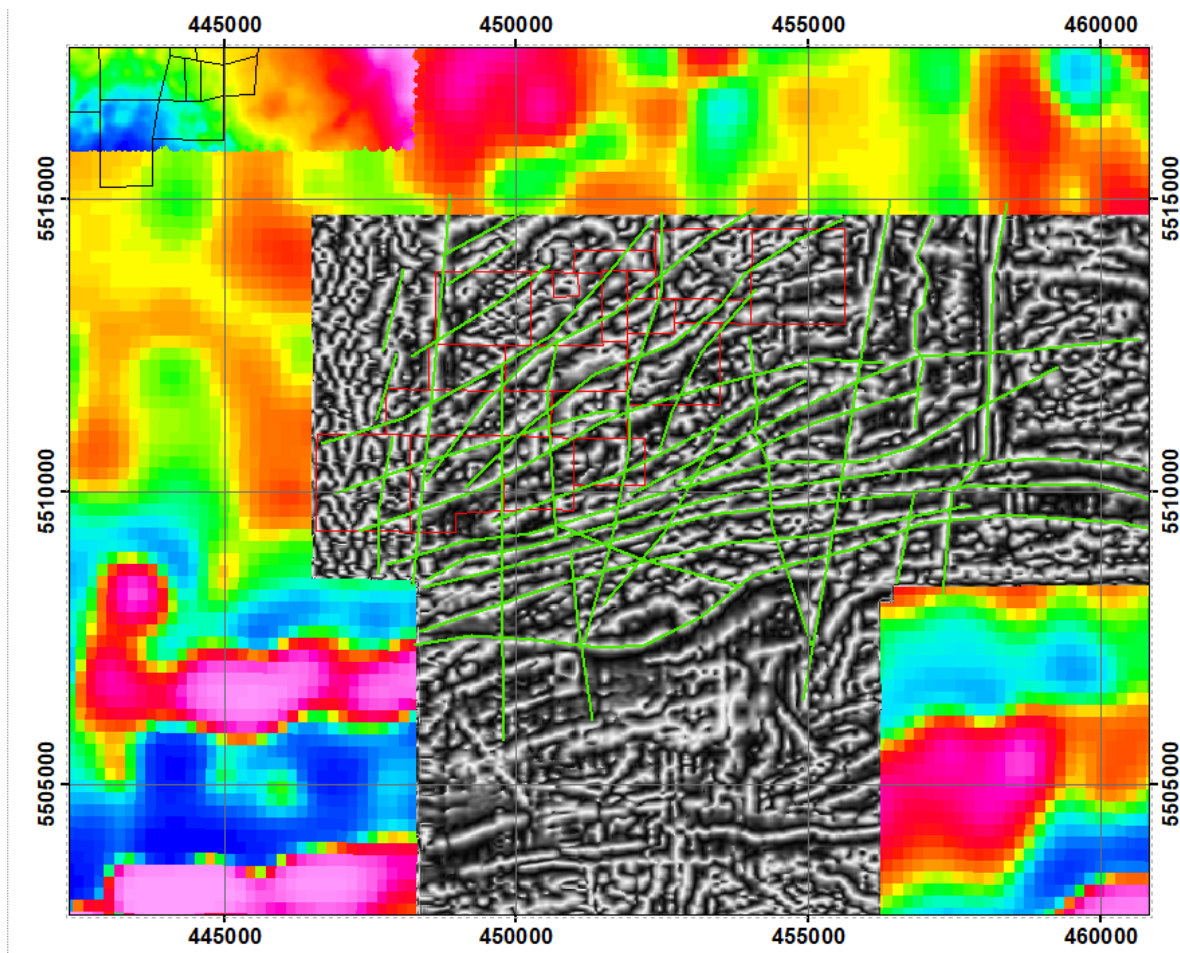
Ontario Regional Mag with Miner and Mud Lake Properties , OGS geology outline and Proposed Terrain Boundary



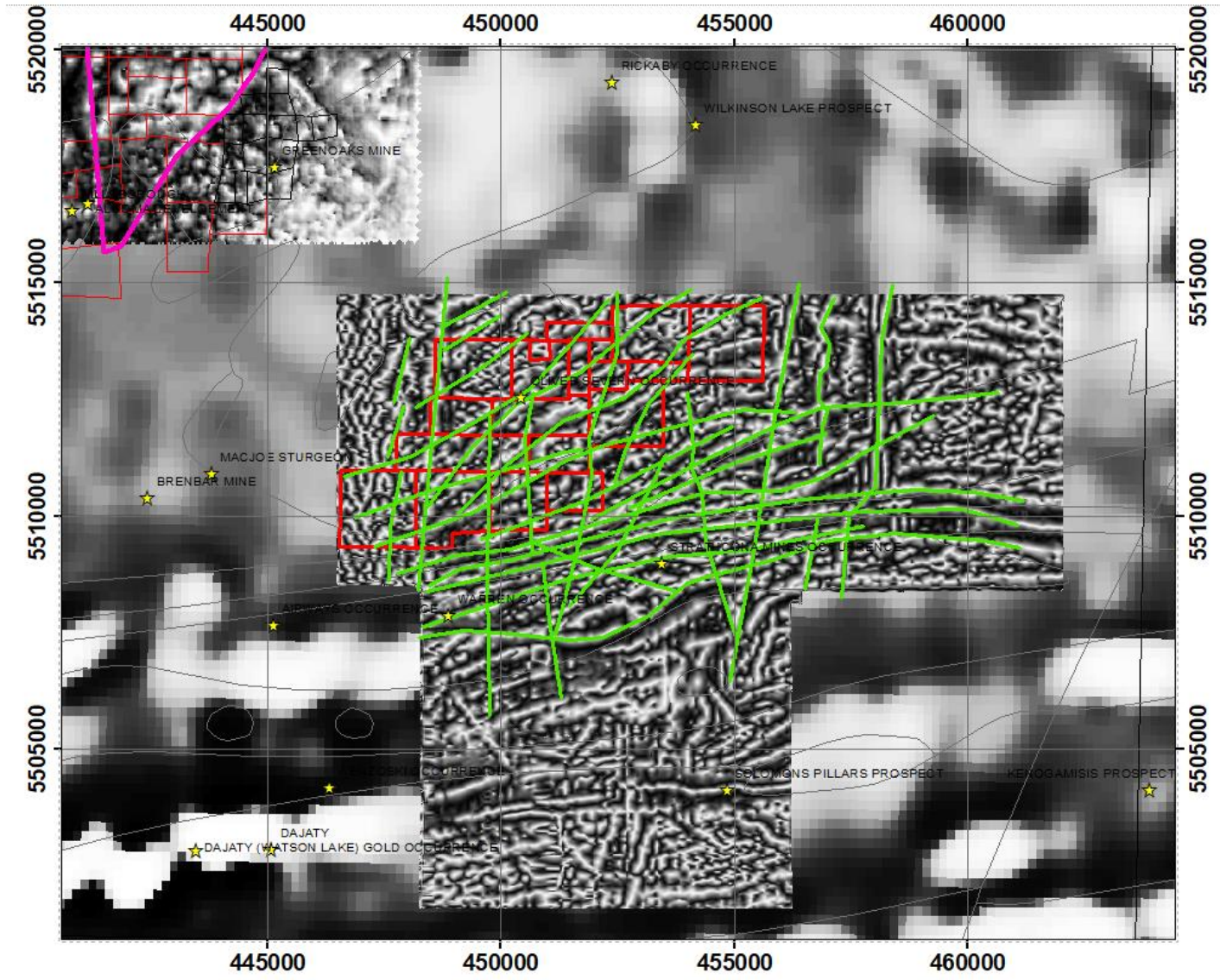
Ontario Regional Mag First Derivative (1VD) with Miner and Mud Lake Properties, OGS geology outline and Proposed Terrain Boundary



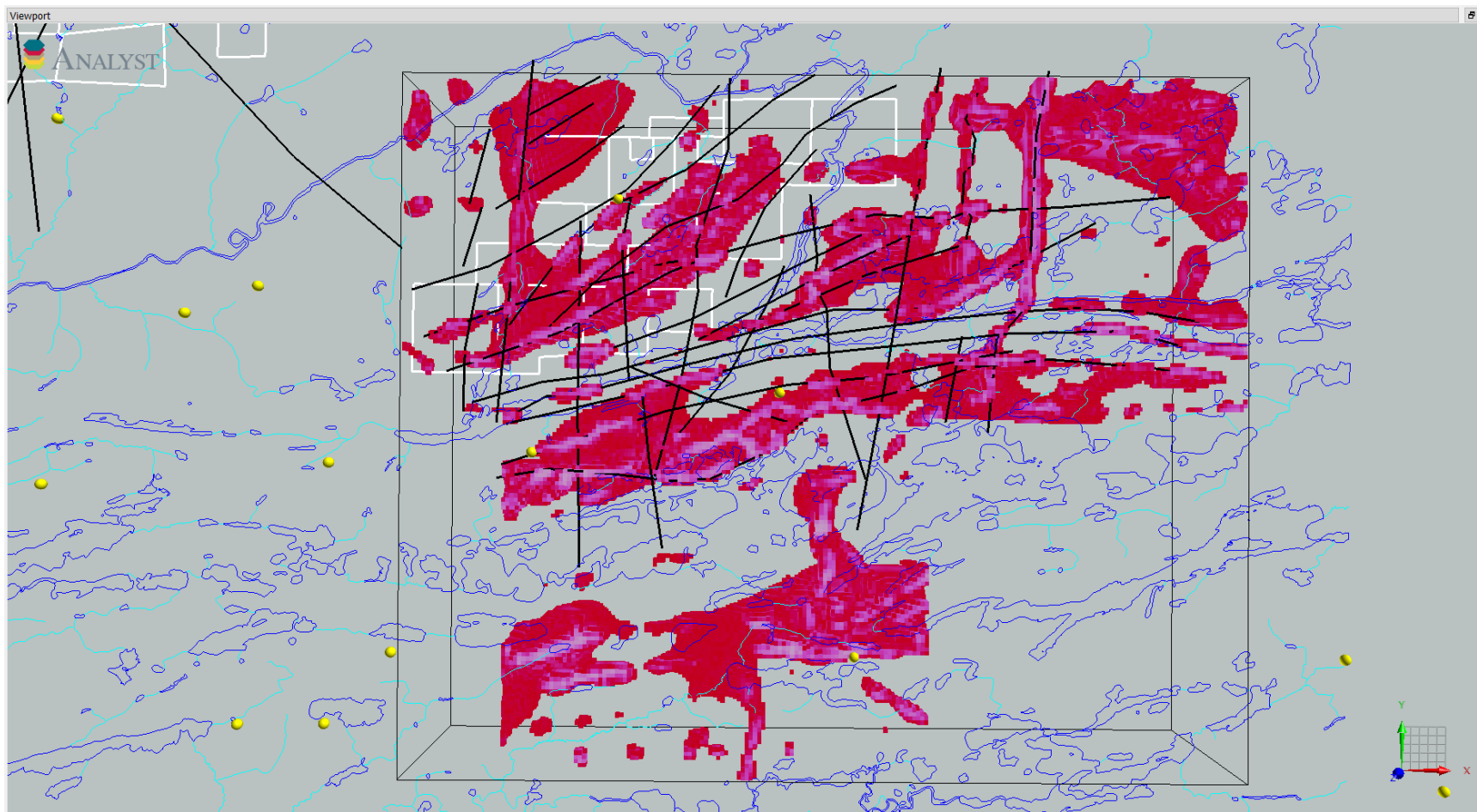
Mud Lake Main Magnetic Lineaments on Mag Tilt Derivative (TDR). Ontario Mag First Derivative in Background



Mud Lake Main Magnetic Lineaments on Mud Lake Mag Tilt Derivative (TDR) with OGS Mag 1VD and Au Occurences

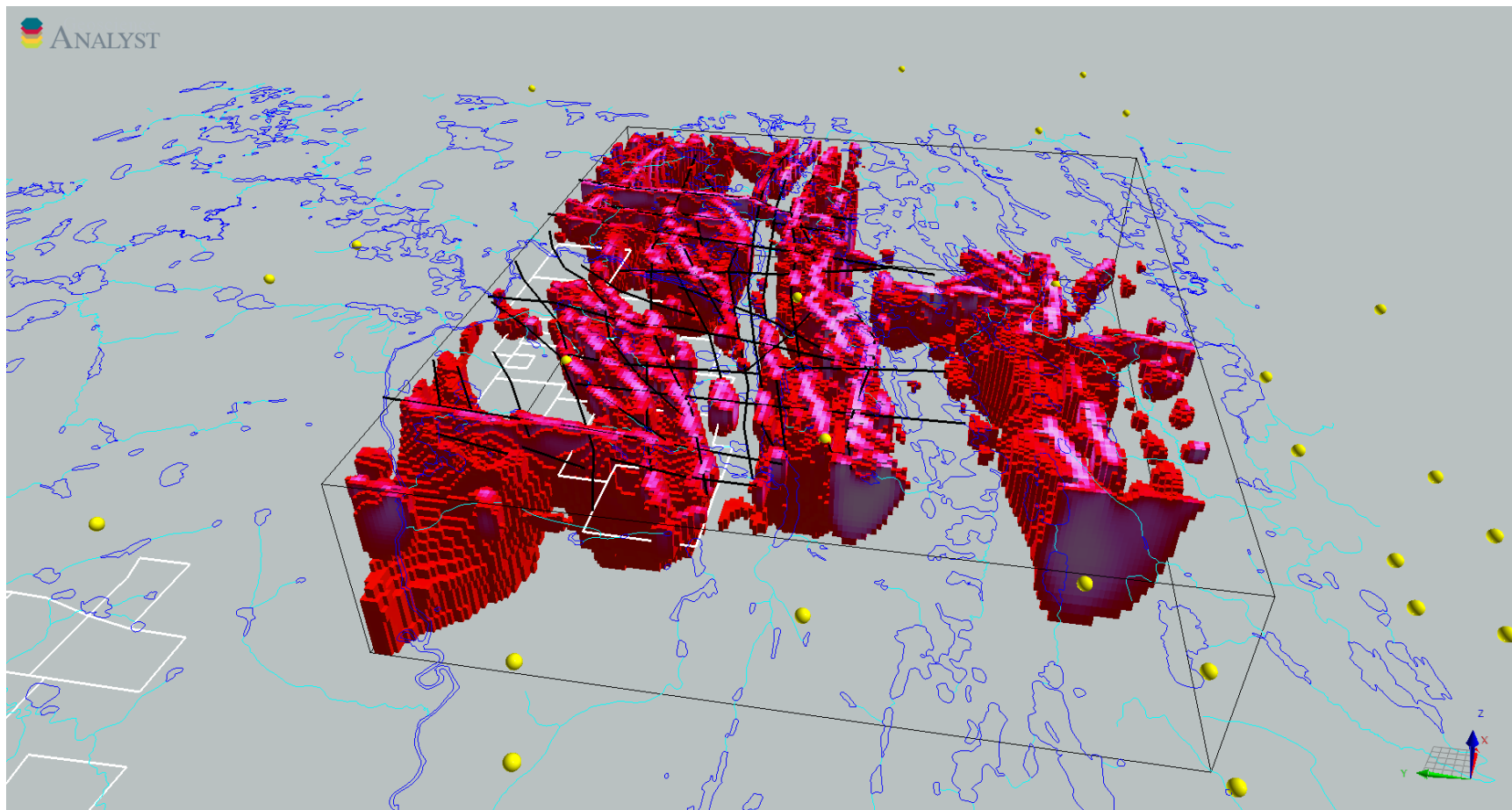


Mud Lake Mag Inversion Cutoff 0.0004 SI Plan View



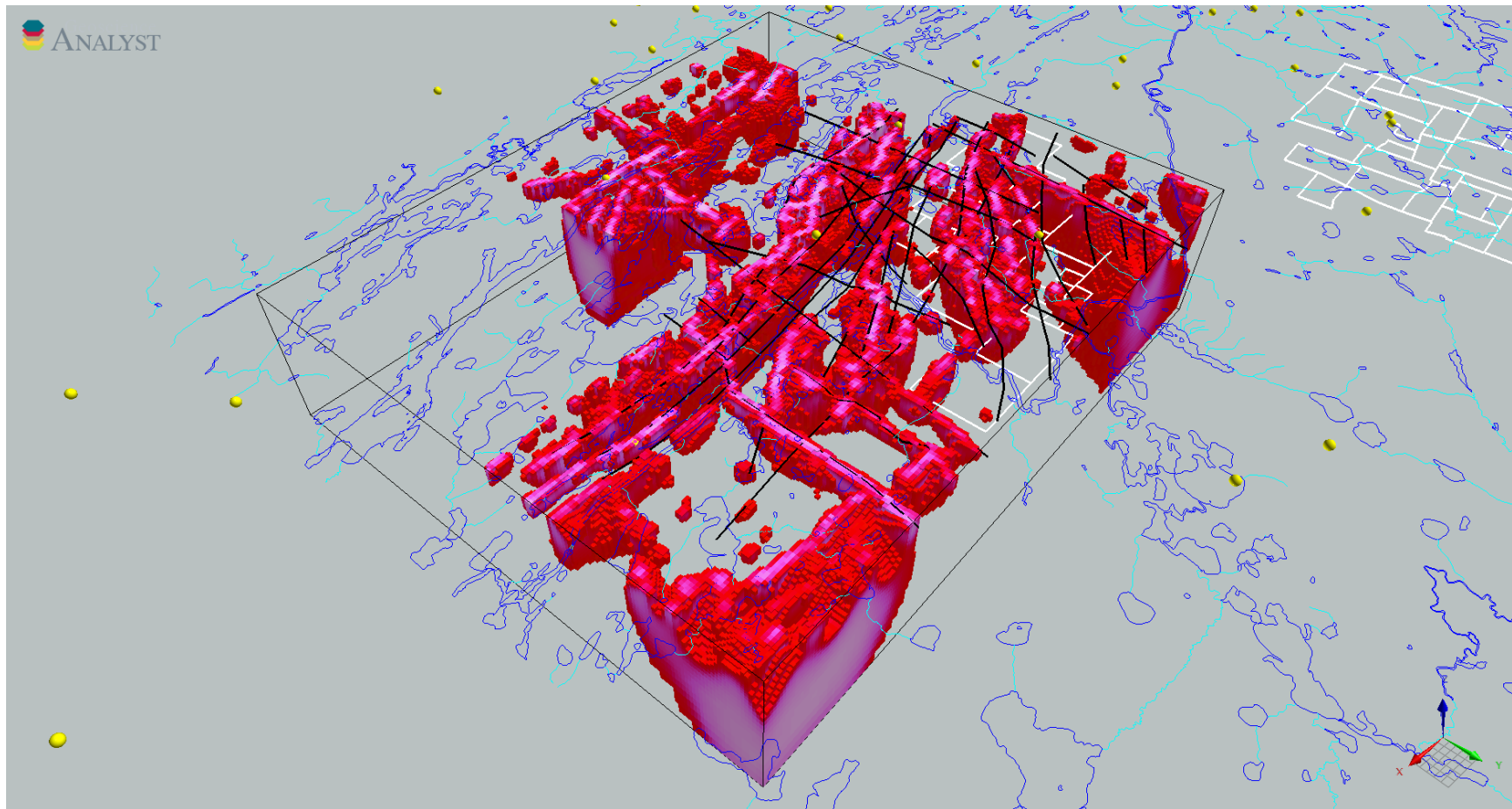
Mud Lake Mag Inversion

Cutoff 0.0004 SI View from WSW and above



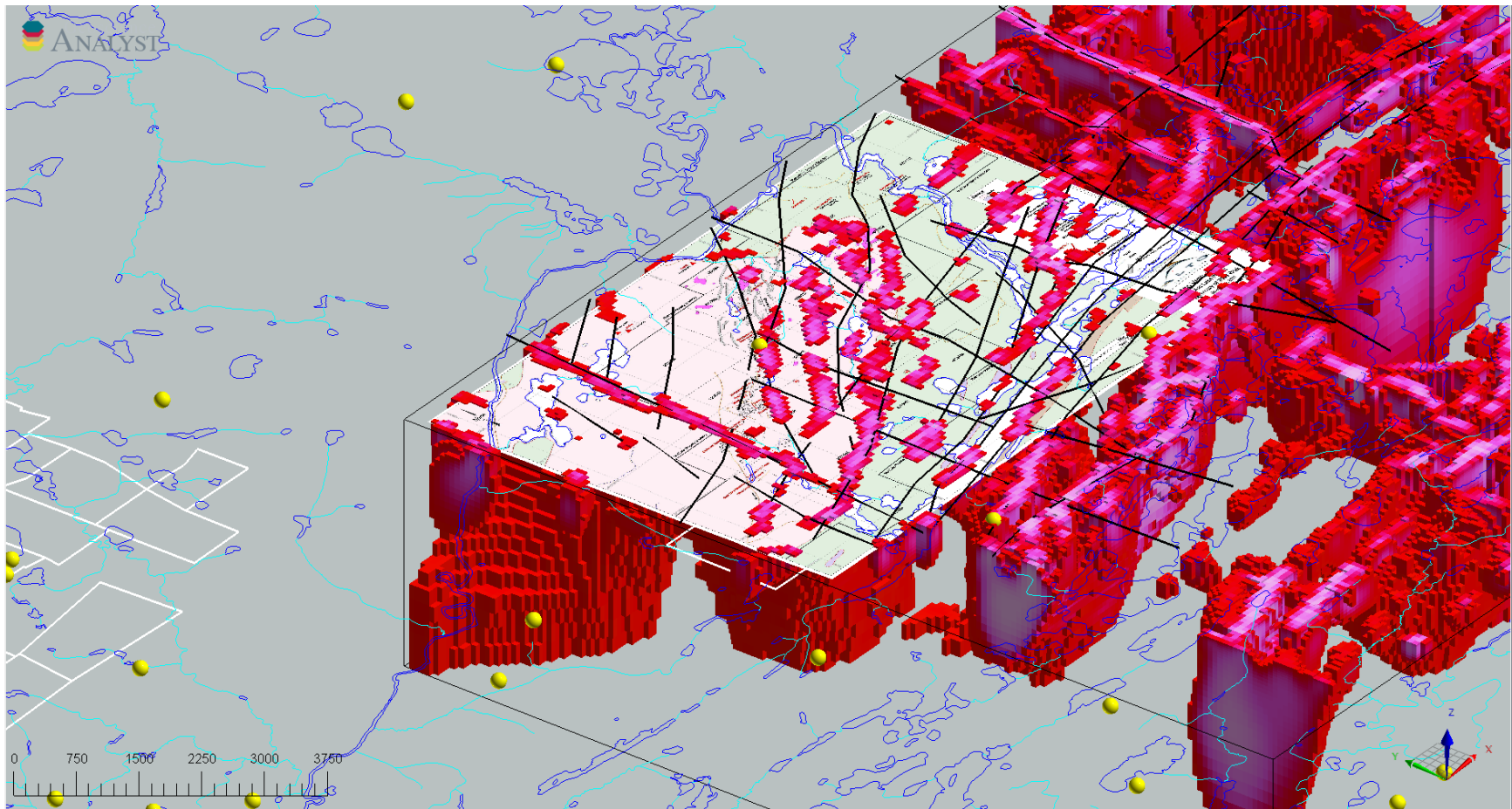
Mud Lake Mag Inversion

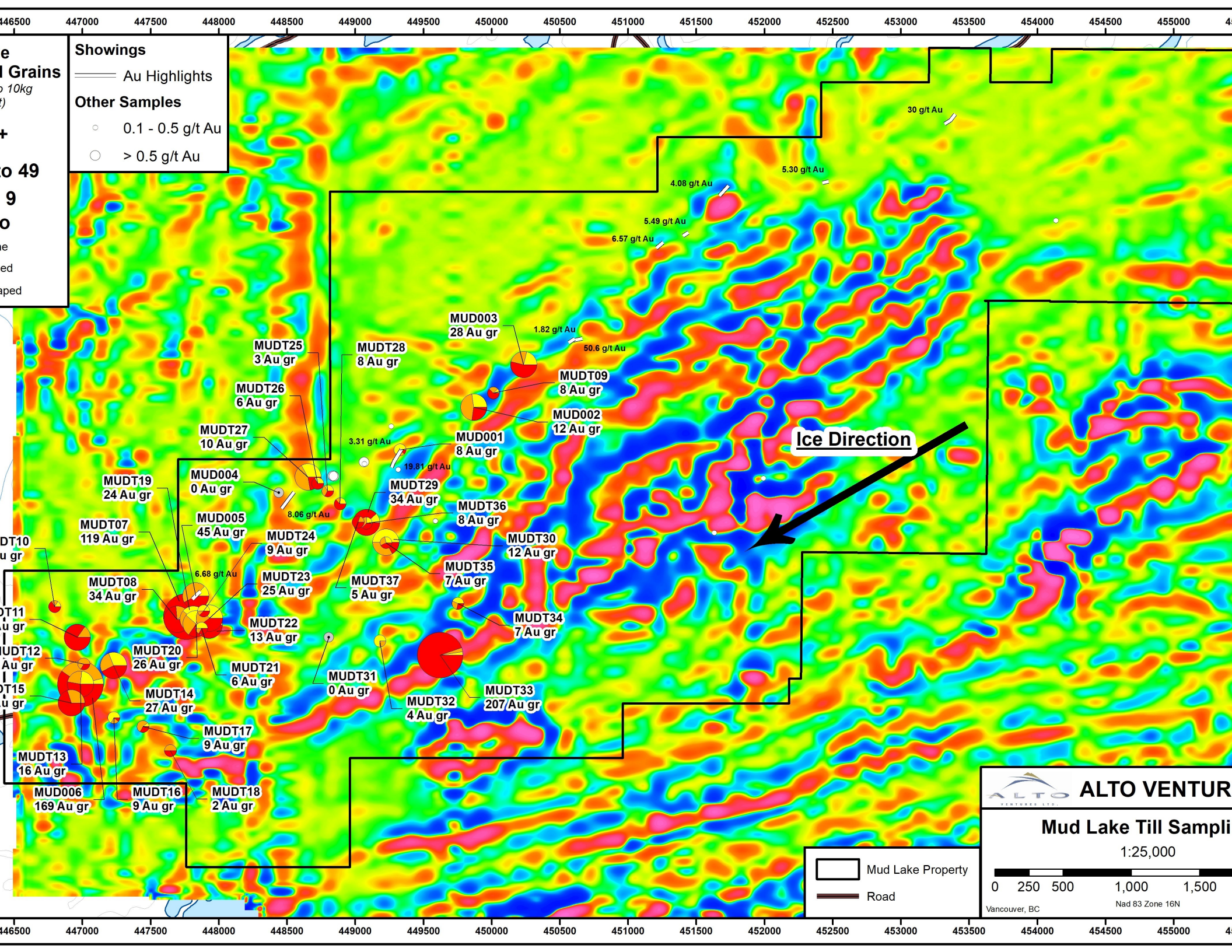
Cutoff 0.0004 SI View from NE and above



Mud Lake Mag Inversion

Cutoff 0.0004 SI View from SW and above with property geology map





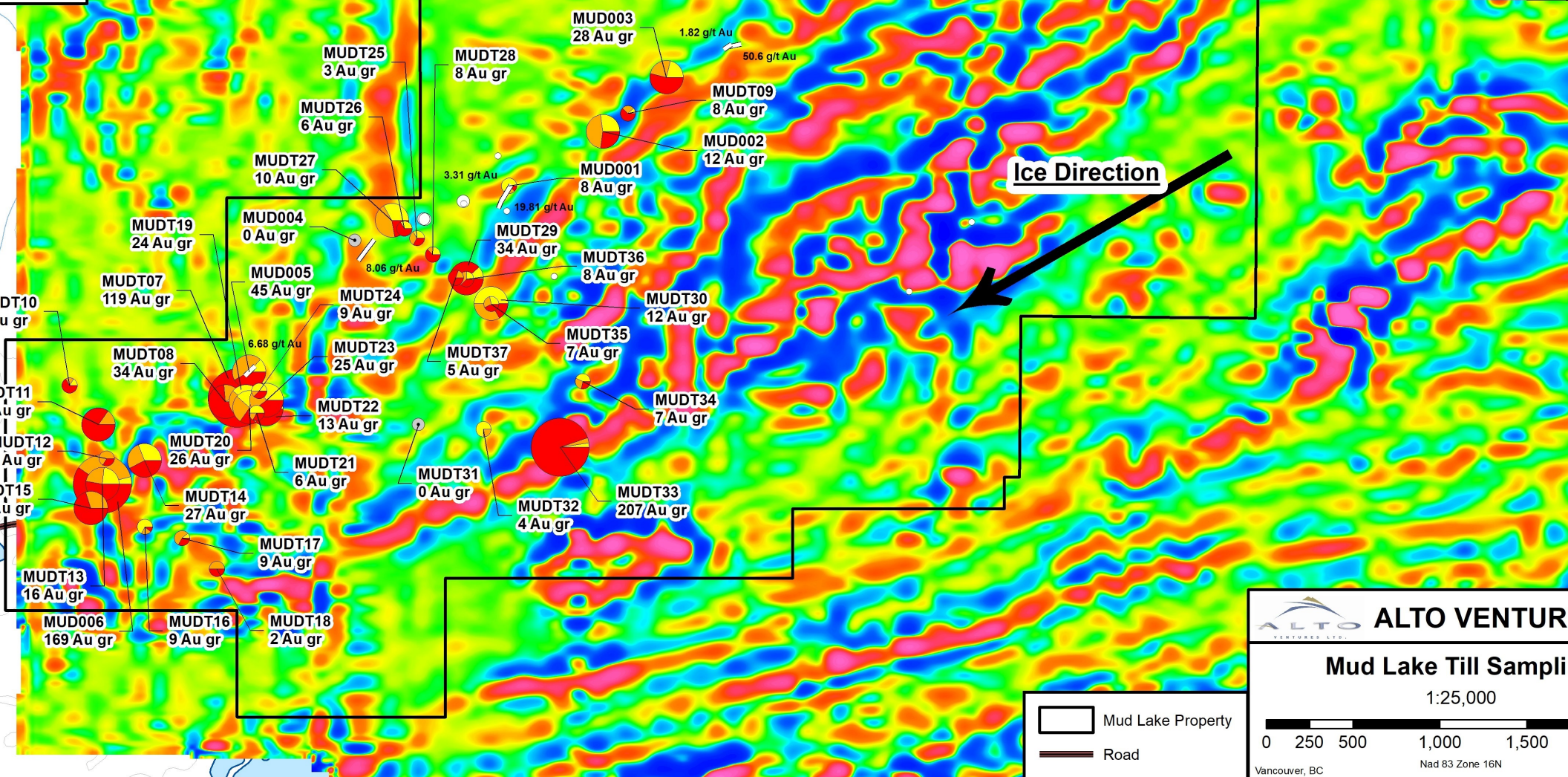
e
 I Grains
 > 10kg
 (t)
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Showings

— Au Highlights

Other Samples

- 0.1 - 0.5 g/t Au
- > 0.5 g/t Au



ALTO VENTUR

Mud Lake Till Sampli

1:25,000

0 250 500 1,000 1,500

Vancouver, BC

Nad 83 Zone 16N

□ Mud Lake Property
 — Road