

**43-101F1 Technical Report on the
Tannahill Gold Property
Tannahill Township,
Larder Lake Mining Division
Ontario
(NTS 32D05)**



Prepared For
Atacama Resources International Inc.

by

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TABLE OF CONTENTS

1. EXECUTIVE SUMMARY	vii
2. INTRODUCTION.....	1
2.1 Sources of Information	1
2.2 Units of Measure.....	2
3. RELIANCE ON OTHER EXPERTS.....	2
4. PROPERTY LOCATION AND DESCRIPTION.....	2
4.1 Property Location.....	2
4.2 Property Description.....	2
4.2.1 Status	2
4.2.2 Nature of Atacama’s Interest.....	3
4.2.3 Environment and Permitting.....	5
5. ACCESSIBILITY, CLIMATE, LOCAL-RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY.....	6
5.1 Access.....	6
5.2 Climate	6
5.3 Infrastructure	6
5.4 Physiography.....	7
6. HISTORY	7
6.1 Introduction	7
6.2 Prospecting/ Trenching.....	7
6.3 Geological Mapping	18
6.4 Geophysics	20
6.5 Diamond Drilling	29
7. GEOLOGICAL SETTING AND MINERALIZATION	37
7.1 Regional Geology	37
7.2 Property Geology	38
8. DEPOSIT TYPES AND MINERALIZATION	41
8.1 Mineralization	42
8.1.1 Greenstone-hosted quartz-carbonate vein deposits.....	42
8.1.2 Syenite-associated disseminated gold deposits	43
9. EXPLORATION	45
10. DRILLING	45
10.1 Historical Drilling.....	45

10.2	Field Checks/ Resampling of Core.....	46
10.2.1	Field Checks.....	46
10.2.2	Re- assembly of Core	50
10.2.3	Resampling of Core	52
10.2.4	Discussion of Results.....	58
11.	SAMPLE PREPARATION, ANALYSES AND SECURITY	65
11.1	Drill Core Analyses	65
11.2	QA/ QC Program	66
11.2.1	Analysis of Resampling Program.....	66
11.2.2	Discussion.....	68
12.	DATA VERIFICATION.....	68
12.1	Data Verification of Historical Values	68
12.2	Data Verification of Current Program.....	69
13.	MINERAL PROCESSING AND METALLURGICAL TESTING.....	69
14.	MINERAL RESOURCE ESTIMATES	69
15.	ADJACENT PROPERTIES.....	69
16.	OTHER RELEVANT DATA AND INFORMATION	69
17.	INTERPRETATION AND CONCLUSIONS.....	69
18.	RECOMMENDATIONS.....	71
19.	REFERENCES.....	74
20.	STATEMENT OF THE QUALIFIED PERSONS.....	78
21.	APPENDICES.....	79

LIST OF TABLES

Table 1:	List of claims comprising the Tannahill Gold Property (Source: CJP Exploration Inc. option Agreement with Atacama).....	4
Table 2:	Summary of significant assays from Sedex/ Abitibi trenching program.	14
Table 3:	Drill hole summary from Sedex/ Abitibi Mining Tannahill Twp. drill program.	32
Table 4:	Summary of significant assays from Sedex/ Abitibi Tannahill Township drill program	33
Table 5:	Drill hole summary and significant composite assays from Sedex/ Abitibi Mining Tannahill Twp. drill program.	34
Table 6:	Summary of the 2011 holes retrieved and logged by C. J. Ploeger in 2017	36
Table 7:	Summary of significant assays from the 2011 drilling logged and sampled by Ploeger in 2017	37
Table 8:	Table of Lithological Units in the Tannahill Gold area (after Jensen, 1978).	39
Table 9:	Table of Production from past producers in the Tannahill Gold area (revised from Chadwick, 2022).	42
Table 10:	DGPS survey coordinates of drill holes and other significant features	49

Table 11: Summary of the significant Horizontal Width (HW) x Grade (G) composite values for the Lower (LZ) and Upper Zones (UZ).....	60
Table 12: Summary of resampling results compared with original values from hole T96-6.....	61
Table 13: Summary of resampling results compared with original values from hole T96-8.....	62
Table 14: Summary of resampling results compared with original values from hole T96-9.....	63
Table 15: Summary of resampling results compared with original values from hole T96-11.....	63
Table 16: Summary of resampling results compared with original values from hole T96-15.....	64
Table 17: Summary of resampling results compared with original values from hole T97-31.....	64
Table 18: Summary of Standards & blanks.....	66
Table 19: Statistical summary of standards & blanks.....	66
Table 20: Comparison of original assays & re- assay values vs check assays with gravimetric finish.	67
Table 21: Comparison of new re- assay values vs original assays.....	67
Table 22: Comparison of original assays & re- assay values vs check assays for samples with visible gold (vg)	68
Table 23: Proposed budget for the recommended exploration program for the Tannahill Gold Property	73

LIST OF FIGURES

Figure 1: General location map (inset) with more detailed property location plan on air photo base. ...	3
Figure 2: Tannahill Gold claim location plan on air photo base (Note: the group of patented surface rights claims is shown in purple hatching).	5
Figure 3: Location of the 1935 trenching in report by Erie Canadian Mines.	8
Figure 4: Location of the 1939 mapping and sampling in a letter/ report W. J. McDonagh to J. C. Golden.....	9
Figure 5: Location of the 1977 trenching sketches by M. Clarke.	9
Figure 6: Location of the 1981 trenching in report by D. A. MacKeigan.....	10
Figure 7: Location of the 1990 stripping and sampling by T. Obradovich.	11
Figure 8: Location of the 1991 & 1994 trenching in reports by G. Bastarache.	12
Figure 9: Location of the 1999 soil sampling survey and stripping in the Sedex/ Abitibi reports by T. Keast.	13
Figure 10: Location sketches of trenches containing significant assays from Sedex/ Abitibi trenching program.	14
Figure 11: Location of the 2008 prospecting report by Katrine Explorations on the Abitibi Mining Corp property.	15
Figure 12: Composite location plan of the various 2013 to 2017 prospecting reports by E. Shynkorenko.	16
Figure 13: Location plan of the 2022 prospecting report by E. Shynkorenko.	18
Figure 14: Location plan of the 1989 geological mapping report by T. Obradovich.....	18
Figure 15: Location plan of the 1999 geological mapping report by T. Keast.	19
Figure 16: Location plan of the 1988 airborne magnetometer survey report by R. A. Campbell of H. Ferderber Geophysics Ltd. for T. Obradovich	20
Figure 17: Location plan of the 1989 magnetometer & VLF-EM survey report by L. G Hobbs on the Bastarache property.....	21

Figure 18: Location plan of the 1990 airborne magnetometer survey report by R. A. Campbell of H. Ferderber Geophysics Ltd. for T. Obradovich	22
Figure 19: Location plan of the 1990 VLF-EM survey and geochemical test lines report by L. G Hobbs on the Bastarache property.....	23
Figure 20 Location plan of the 1991 IP survey report by Remy Belanger on the Bastarache & Mathias property.	24
Figure 21: Location plan of the 1995 magnetometer, VLF-EM and selective IP surveys report by S. Carmichael on the Bastarache property.	25
Figure 22: Location plan of the 1996 IP survey report by Val d'Or Sagax on the Sedex Mining Corp property.	26
Figure 23: Location plan of the 1997 VLF-EM survey report by Meegwich Consultants on the Sedex Mining Corp property.....	26
Figure 24: Location plan of the 2008 VLF-EM survey reports by Larder Geophysics on the Golden Chalice/ Abitibi Mining property.	27
Figure 25: Location plan of the 2008 MaxMin survey report by Larder Geophysics on the Abitibi Mining property.	28
Figure 26: Location plan of the 2015 Spectrometer survey report by J. Ploeger over part of the Tannahill Gold Property	29
Figure 27: Location plan of the 1980 drill hole by P. Crossman.....	30
Figure 28: Location plan of the 1991 drill hole on the Bastarache- Matthias property logged by H. Lovell.....	30
Figure 29: Location plan of the 1995 drill holes on the Bastarache- Matthias property logged by S. Carmichael.	31
Figure 30:Location plan of the 1996 drill holes on the Sedex/ Abitibi Mining Corp property logged by S. Carmichael.....	32
Figure 31: Location plan of the 1996- 97 drill holes on the Sedex/ Abitibi Mining Corp property logged by T. Keast.....	33
Figure 32: Location plan of the 2011 drill holes on the Abitibi Mining Corp property recovered and logged by C. J. Ploeger in 2017.	36
Figure 33: General geology of the Southern Abitibi greenstone belt of the Superior Province of the Canadian Shield categorized by age dated assemblages (from Berger 2002). Note: Tannahill Gold Property indicated by red triangle.....	38
Figure 34: Geology of the Southern Abitibi greenstone belt in the vicinity of the Tannahill Gold Property (red rectangle) from 2003 compilation by Ayer et al.	40
Figure 35: Geology of the Tannahill Gold Property (yellow outline) from the 1978 geological mapping by Jensen.....	41
Figure 36: Traverse track/ location of drill holes and other features of May 15, 2023, Tannahill Gold site visit.	47
Figure 37: T96- 15 (left- uncapped), T97-36 (middle- capped), AMT11-01 (right- uncapped) holes documented during the May 15, 2023, Tannahill Gold site visit.	47
Figure 38: Left- Old drill hole collared in bedrock near old trenches; Right- Survey Station S-04.....	48
Figure 39: Right: Diamond drill hole location plan. Left: Detail of holes targeting the mineralized zone with significant intercepts to be resampled circled in red.....	50
Figure 40:Examples of the condition issues of the re- sampled core- Hole T96-8: A) partially disintegrated core tags; B) faded unreadable footage blocks; C) replaced tray with "X" marking the location of staples in the original tray where the tickets had entirely rotted away.	51
Figure 41: Hole T96-08: Consecutive footage blocks circled in the darker red contain the original markings from the drillers (194 ft= 59.13 m) and the metric conversion by the loggers (62.18m= 204 ft & 65.23 m= 214 ft) but the distance between the 194 ft (59.13 m) block in box 9 and the 204 ft (62.18 m) block in box 10 is only 5 feet (1.5 m). The original logging and sampling ignored	

this discrepancy and continued 1m sample intervals throughout.	52
Figure 42: Example of ticket in resampling program.	52
Figure 43: Reconstructed significant intersection of Hole T96-11 with new assay tickets inserted.	56
Figure 44: Retrieved missing boxes and reconstructed significant intersection of Hole T96-15 with new assay tickets inserted.	57
Figure 45: Cross section of drill holes on historic grid Line 300E showing the projected Upper and Lower mineralized zones. (red circle- resampled holes T96-09 & T97-31)	59
Figure 46: Longitudinal section plot of HW x G composite values of the Lower mineralized Zone.	60
Figure 47: Longitudinal section plot of HW x G composite values of the Lower mineralized zone with possible cross fault offsetting the lower portion of the zone and possible drill targets testing the up and down plunge extensions of the zone.....	72

LIST OF APPENDICES

APPENDIX 1	Diamond drill Plan and Sections L100E, L150E, L200E, L250E, L300E, L350E, L400E and L450E
APPENDIX 2	ALS Assay Certificate

1. EXECUTIVE SUMMARY

Atacama Resources International, Inc. (Atacama, or the company) is a publicly traded OTC Pink Current company registered in the United States who owns or controls a claim group in the Larder Lake mining District, Northeast Ontario, which it refers to as the Tannahill Gold Property. The company is planning early stage exploration on the property which it acquired via option agreement dated January 27, 2023. The company engaged Frank R. Ploeger, BSc. P. Geo. to compile and document the historical work performed on the Tannahill Gold property and to verify the historical drill results by locating the drill hole collars and re-sampling the significant intersections in a technical report compliant with the requirements of NI 43-101. The Tannahill Gold property comprises 29 single cell claims that are in good standing with the Ministry of Mines as of the effective date of this report.

The property is situated on the north flank of a large east-trending synclinorium within a sequence of interlayered tholeiitic and calc-alkaline mafic volcanic rocks of the Abitibi Greenstone Belt. The intrusive rocks in the area range from alkaline to sub-alkaline in composition. The sub-alkaline rocks, which range from mafic to granitic, exhibit chemical trends similar to the calc-alkaline volcanic rocks and are restricted to the calc-alkaline volcanic sequence, comprising a single extrusive/ intrusive magmatic sequence. The alkaline intrusive rocks are syenitic in composition and appear to postdate the main volcanism in the map-area.

Mineralization in the map-area occurs in areas of strongly altered volcanic rock cut by shear zones or fractures filled with quartz, epidote, and calcite which may be mineralized with chalcopyrite, pyrite, specular hematite and rarely, visible gold. Most of the more intense local alteration occurs in or near felsic or syenitic intrusive rocks and adjacent structures.

Gold was first discovered on the site of the current property in 1931 within a shear zone with quartz stringers bearing “free” (visible) gold in an altered volcanic host and in a mineralized vertical porphyry with assays returning up to 66.86 grams per tonne (gm/t) gold. Descriptions from the historical trenching/ stripping suggest a general trend of the mineralized zones and associated structures at approximately 070 degrees, which regionally, is a significant trend for several of the historical gold producers in the major gold camps in the region. The “pervasive quartz- carbonate- albite alteration with 5-10% disseminated pyrite with variable quartz veining” described by Keast for the Lower and Upper mineralized zones and the presence of syenitic intrusives is also similar to that of many of the local past and present producers.

Following the initial discovery, little exploration work was conducted in the area of the claims until 1981, at which time, the historic trenches were re-examined. In the following years, prospecting and trenching programs were conducted on various sections of the property supplemented by a number of geophysical, geological and soil sampling surveys. A few scattered isolated diamond drill holes were collared in different areas of the property until the winter of 1996 -97 during which time 40 holes tested the extent of the main showing as well as IP anomalies. Geophysical surveys and prospecting continued through to 2022 including core from a 2011 five hole drill program which was relogged and sampled in 2017.

In 1996- 97, a series of 6 drill programs totalling 40 holes aggregating 6171.16 metres were conducted on the property for Abitibi/ Sedex Mining. The programs targeted the depth and strike extensions under the main showing and were designed to follow up on several IP anomalies.

Drilling revealed two mineralized horizons designated as the Lower and Upper Zones which included values of 5.16 gm/ t Au over 5.00 m and 7.02 gm/t Au over 3.70m. Visible gold was noted in four of the holes. Although the locations for the holes were tied into the historical cut grid and appear to have been surveyed with control provided by at least one permanent survey station (S-04), many of the holes could not be located when georeferenced into the UTM coordinate system.

Atacama Resources International Inc. has not conducted any significant exploration work on the claims since acquiring the Tannahill Gold property. In preparation for planning an exploration program on the property and conducting a due diligence of the drilling, Atacama contracted the writer and Canadian Exploration Services to accurately locate the drill hole collars in the vicinity of the main gold showing and examine the stripped areas and historical showings to confirm the work done and sample locations.

Following the initial visit on May 15, 2023, crews surveyed all of the drill collars located in the central area of the property around the surface showing, locations for tickets from several 1999 chip/ grab samples, for pickets encountered during the reconnaissance of the property, for a survey monument, for 3 historic trenches, and, for an undocumented historic drill hole in bedrock generating accurate Differential Global Positioning System (DGPS) coordinates for all of the features. The surveys were conducted using a Trimble Geo 7X handheld instrument.

In addition to the field work, the drill core from historic holes T96-01/ 06/ 08/ 09/ 11 and 15, the better grading holes from the drill program, were retrieved from the secure CXS core storage facility west of Larder Lake. Also recovered was a wide anomalous zone of 11.8 m (core length) identified as the “Upper Zone” in the original log from hole T97-31. The intercept from hole T96-1 and a portion of hole T96-8 could not be found in the core storage compound and were therefore not resampled.

Once the core had been unbundled and reorganized at the core storage yard, it was transported to the CXS building in Larder Lake where it was unpacked and reconstructed by the writer. The significant historical assay intervals were re- logged/ examined and re- assayed to verify the historic values as due diligence for a possible future resource calculation. Once cut, samples were bagged and hand delivered to the ALS prep lab in Rouyn- Noranda by the writer. In total, 72 samples were sent for assay including 64 samples of previously split core, 4 standards and 4, blanks. One standard (OREAS 236) and one blank were inserted into the sample intervals of holes T96-8, 8, 11 and T97-31. At ALS, *Prep-31B* was used for sample preparation and *AA-26* as the assay method; re- assay by the Au- GRA22 method was requested for samples returning greater than 2 ppm (2 g/t).

Following a review of the drill logs, the writer extracted the significant intercepts from the Lower and Upper Zones and recalculated the composite horizontal widths times the grade of the zones to produce a contoured longitudinal section for the Lower Zone which appears to be the more extensive of the two. Two higher grade gold- bearing chutes centred on an easterly plunging alteration zone are inferred from the section.

Both the Lower and Upper Zones occur within “strongly altered mafic volcanic” which are generally described as exhibiting pervasive carbonatization with quartz veining. Most of the significant intercepts are also associated with a fault, foliated or fractured zone, or tectonic breccia within or adjacent to the zone.

Once the assays were returned from ALS, the significant intersections from holes T96-6, T96-8, T96-9, T96-11, T96-15, and T97-31 were summarized in a series of tables which included the new and original sample numbers, footages, new assays for the resampled intervals as well as the historical assay results reported in ppb and gm/t.

Two intervals from hole **T96-06** were resampled, 141.0 gm/t Au over 0.5m from 16.50- 17.00 m, in which visible gold was noted on the log, and a lower interval from 29.00- 32.00 m which graded 2.76 gm/ t Au. Re-assay values for the same intervals returned 37.50 gm/t and 2.49 gm/t Au, respectively.

In hole **T96-8**, another two separate zones were resampled, the first, from 22.00- 30.30 m averaging 1.27 g/t Au over 8.3 m, and a section from 56.50- 67.50 m which returned 1.77 g/t Au over 11.0 m. The same intervals both yielded assay values of 0.78 gm/t Au.

The Upper and Lower Zones from hole **T96-09**, were culled for resampling. The original composite assay calculated from the log for the narrower "Upper Zone" extended from 48.00- 51.00 m returning 1.88 g/t Au over 3.0 m while the "Lower Zone" in hole T96-09 yielded 3.32 gm/t Au over 8.00 m from 92.00- 100.00 m including two flakes of visible gold (at 95.73 m & 97.82 m). On re-assay, the Upper Zone composite assayed 0.74 gm/t Au, however only 3m of the Lower Zone were recovered grading 3.04 gm/t Au.

In hole **T96-11**, the mineralized interval which returned 2.51 gm/ t Au over 12.00 m, from 117.00- 129.00 m was resampled yielding a composite value of 1.94 gm/t Au.

An interval containing visible gold which returned an assay of 3.96 gm Au/ ton over 7.70 m (from 98.80- 106.50 m) was re-checked at 3.59 gm/t Au from hole **T96-15**.

Finally, the mineralized zone in hole **T97-31** which averaged 1.01 gm/t Au over 11.80 m from 72.70- 84.50 m was resampled assaying 1.07 gm/t Au, the only interval grading higher than the original assay.

As part of the QAQC process and analysis of the resampling program, it was noted that the values of standard ORES 236 (1.85 ppm Au) returned from ALS were consistently lower than the specifications of the reference material inferring that there may be a systematic undervaluation of the current assay results. Of the 64 core samples sent for re- assay, 15 samples exceeded 2 gm/t gold with the initial AA process and were gravimetrically re- checked.

Empirically, the writer observed that the resampling of holes T96- 06, 08, and 09 yielded many assays that appear to constitute roughly half of the historic value while assays from holes T96- 11, 15 and T97-31 more closely approximate the original values. The reasons for these discrepancies are unclear. A comparison of the average grades of the current samples versus the historic ones indicates that approximately half of the current samples returned higher values than the historic ones.

When comparing the calculated down hole composite assays for the re- assayed samples and the historical composites for the same interval, it was found that most of the historic composite intervals were significantly higher than the newly calculated composites by an average of 31%. This may, in part, due to a biased sampling in which any interval in which visible gold was logged was included in the bagged sample or there may have been variabilities in the assaying methods between the 1996- 97 sampling at Swastika Labs and that of the 2023 ALS procedures.

Of the 5 samples described as containing visible gold, the sample from hole T96-6 (X011956) did not contain enough material to be check sampled, the core box containing historical gold bearing sample 16043 could not be located, and samples E743704, X011988 and X011979 all yielded lower values than the original averages.

For all of the historical work conducted on the Tannahill Gold property for which assay results were provided, the writer checked whether or not assay laboratory certificates were provided in the report and verified that the results quoted in reports or on logs matched those quoted on the certificates particularly for those of the 1996/ 97 drill campaigns by Sedex/ Abitibi Mining Corp.

Following a review of the drill logs, the writer extracted the significant intercepts from the Lower and Upper Zones and recalculated the composite horizontal widths times the grade of the zones to produce a contoured longitudinal section for the Lower Zone. Two higher grade gold- bearing shoots centred on an easterly plunging alteration zone were inferred from the section.

A preliminary exploration program with an estimated cost of \$315,000 is recommended for the Tannahill Gold property. To fulfill a requirement of the option agreement, a deep 3-D array IP survey including refreshing the historic grid should be conducted on the property at an estimated cost of \$120,000.

It is also recommended that the historical surface showings and the surface projections of the mineralized zones interpreted from the drill data be stripped, mapped, and channel sampled at an estimated cost of \$18,600.

The two higher grade, visible gold- bearing chutes centred on an easterly plunging alteration zone should be drill tested down plunge below the interpreted cross fault and up- plunge to the west. A total of up to 800 m of drilling in 5 holes totalling \$120,000 for drilling and \$16,400 for supervision, logging and assaying is recommended.

Finally, all of the known data, and any new information generated from the proposed recommendations relating to the mineralized zones, should be incorporated into a digital model, which when combined with reporting amounts to \$13,000 with an additional \$27,000 allocated towards miscellaneous expenses.

2. INTRODUCTION

This technical report has been commissioned by the management of Atacama Resources International, Inc. (Atacama, or the company) to compile and document the historical work performed on the Tannahill Gold property and to verify the historical drill results by locating the drill hole collars and resampling the significant intersections. Atacama Resources International Inc. is a publicly traded OTC Pink Current United States company with headquarters at:

Atacama Resources International' Inc.
1200 South Pine Island Road
Plantation, Florida, USA, 33324.
Contact: glennbgrant85@gmail.com

This report was prepared by Frank Ploeger who is a Qualified Person as per the definition of NI 43-101 and an independent qualified person as per the regulations of the SEC. Mr. Ploeger, a registered Professional Geoscientist in Ontario (PGO- member # 0479), accepts responsibility for the entire report. The author has worked as a gold exploration and mine geologist in the Kirkland Lake area for about 45 years and has visited the property. Mr. Ploeger's contact information is:

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This report contains details of the land tenure, a summary of previous exploration and development work, a compilation and synthesis of geology, and geophysics data. The report also contains recommendations for further exploration and development of the Property. The author did not review legal, environmental, political, surface rights, water rights or other non-technical issues that might indirectly relate to this report relying on the information supplied by Atacama and the vendors.

2.1 Sources of Information

Technical information in this report is derived from a variety of sources, including technical articles in scientific publications, and other files. Other files refer to data from a variety of sources including laboratory certificates and analytical data. Most of the information necessary for reporting of the historical work completed on this property was obtained from the assessment file report images (AFRI) records of the Ontario Ministry of Mines. Additional information was obtained from the hardcopy files of the Resident Geologists' Office in Kirkland Lake. All documents used in the preparation of this report are listed at the end of the report (see 19: References), and assessment file records and scientific publications are available from public sources.

F. Ploeger supervised the retrieval of the significant drill hole intersections from the Canadian Exploration Services secure core storage area and the core resampling program.

2.2 Units of Measure

Some of the historical work on the showings on or near the Tannahill Gold property was stated in Imperial Measurements, including feet (ft), ounces (oz), ounces gold per short ton (oz Au / t) and gold dollar value @\$20. All measurements are reported in the units used in the original reports with equivalent metric measurements shown in brackets. The conversion for lengths was 1 inch equals 2.54 centimetres and 1 foot equals 0.3048 metres. The conversion used for imperial to metric gold values was 1 troy ounce per ton (opt) equals 34.286 grams per tonne (gm/t). Gold at \$20 equals 1 opt.

Throughout this report, common measurements are in metric units, with linear measurements in millimetres (mm), centimetres (cm), metres (m), or kilometres (km). Metal contents are given as parts per billion (ppb), parts per million (ppm) or percent (%), and precious metal values (gold, platinum, and palladium) as grams per tonne (e.g., gm /t Au). Volumetric measures are in millilitres (mL), and mass measurements are in grams (g) and kilograms (kg). The conversion from ppm Au to g/t Au is 1 ppm Au equals 1 g/t Au.

3. RELIANCE ON OTHER EXPERTS

The geological information in this report is not reliant on individuals who are not qualified persons. Land tenure information for staked claims has been obtained from the Ministry of Mines' Mining Lands Administration System (MLAS) web site, which contains a disclaimer as to the validity of the provided information.

The author relied on the option agreement between the vendors of the property and Atacama for the legal status of mineral tenure. The report is based upon information believed to be accurate at the time of certification, but which is not guaranteed.

4. PROPERTY LOCATION AND DESCRIPTION

4.1 Property Location

The Property consists of 29 contiguous single cell mining claims comprising approximately 625.5 hectares straddling the south central boundaries of Tannahill and Elliott Townships, Larder Lake Mining District. The location of these claims is as shown in *Figure 1*. The center of the Property is located at approximately 592,000 mE, 5,359,000 mN, UTM Zone 17 which is about 35 kilometres northeast of the town of Kirkland Lake, Ontario.

4.2 Property Description

4.2.1 Status

The Tannahill Gold Property comprises 29 single cell mining claims (Table 1) jointly owned by CJP Explorations (50%), E. Shynkorenko (13%), P. Hermeston (25%), and M. Sigouin (12%)

which were optioned to Atacama Resources International, Inc. Twenty of the claims are primarily located in the southern part of Tannahill Township and nine claims are contiguous in Elliott Township as shown in Figure 2 (yellow outline).

Included within the Tannahill Gold claim group are 6 former patented claims from which the mining rights have been relinquished (purple hatched on the claim sketch) but the surface rights retained.

It should be noted as a point of **Disclosure** that CJP Explorations, one of the vendors, is owned by C. J. Ploeger, the writer's son.

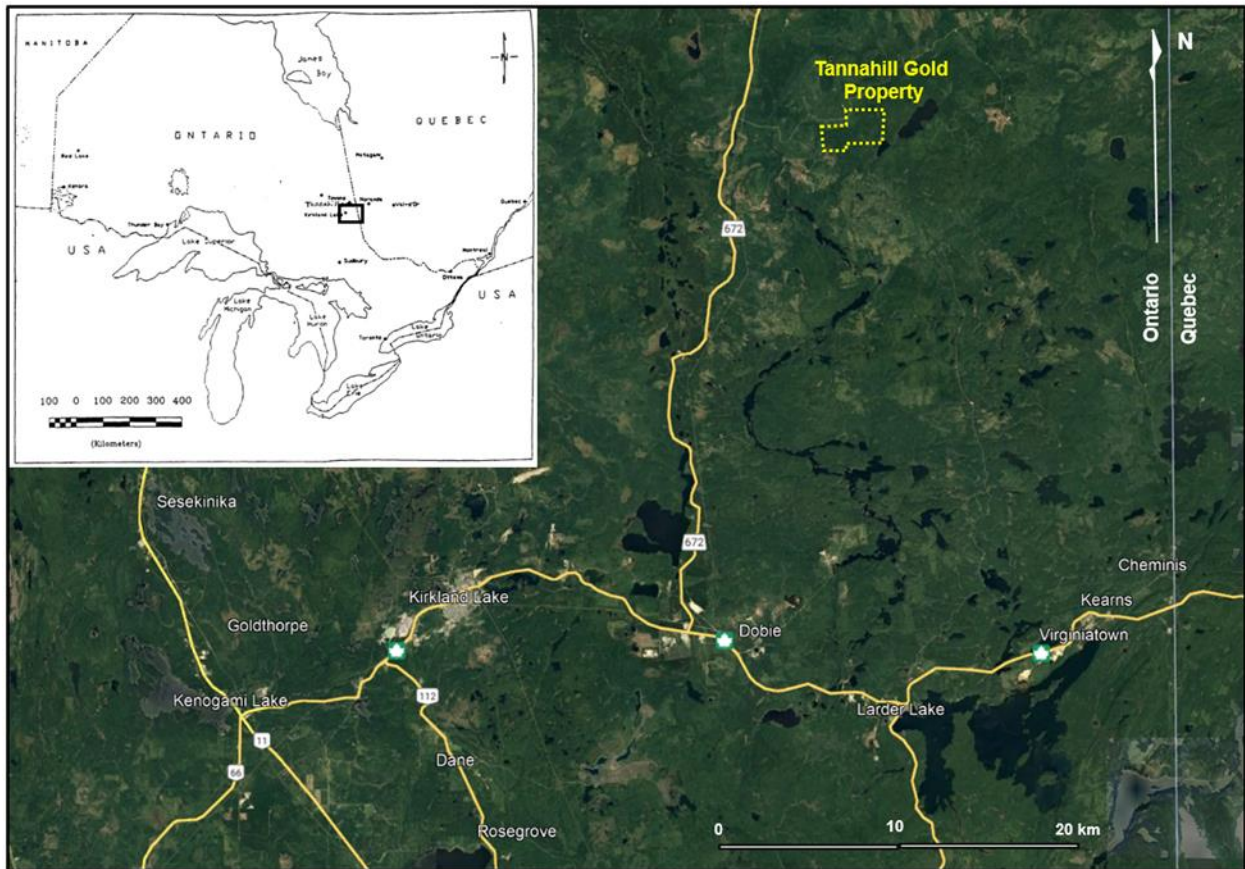


Figure 1: General location map (inset) with more detailed property location plan on air photo base.

4.2.2 Nature of Atacama's Interest

Under the terms of the four year agreement dated January 27, 2023, Atacama has the right to acquire an undivided 100% interest in the property subject to a 2% Net Smelter Returns royalty by making cash payments in the aggregate amount of \$100,000.00 and completing a total of \$100,000.00 in eligible assessment work expenditures including a "modern IP survey and model/ resource calculation".

Township / Area	Tenure ID	Tenure Type	Anniversary Date	Tenure Status	Work Required	Total Reserve
TANNAHILL	105749	Single Cell Mining Claim	2023-06-19	Active	400	14
TANNAHILL	105750	Single Cell Mining Claim	2023-06-19	Active	400	4619
TANNAHILL	227939	Single Cell Mining Claim	2023-06-19	Active	400	0
TANNAHILL	286478	Single Cell Mining Claim	2023-06-19	Active	400	4931
TANNAHILL	337915	Single Cell Mining Claim	2023-05-24	Active	400	0
ELLIOTT,TANNAHILL	550396	Single Cell Mining Claim	2023-05-27	Active	400	0
ELLIOTT,TANNAHILL	550397	Single Cell Mining Claim	2023-05-27	Active	400	0
TANNAHILL	550398	Single Cell Mining Claim	2023-05-27	Active	400	0
TANNAHILL	550399	Single Cell Mining Claim	2023-05-27	Active	400	0
ELLIOTT,TANNAHILL	550400	Single Cell Mining Claim	2023-05-27	Active	400	0
TANNAHILL	550401	Single Cell Mining Claim	2023-05-27	Active	400	0
ELLIOTT,TANNAHILL	550402	Single Cell Mining Claim	2023-05-27	Active	400	0
TANNAHILL	553184	Single Cell Mining Claim	2023-07-05	Active	400	0
TANNAHILL	553185	Single Cell Mining Claim	2023-07-05	Active	400	0
TANNAHILL	553186	Single Cell Mining Claim	2023-07-05	Active	400	0
TANNAHILL	553187	Single Cell Mining Claim	2023-07-05	Active	400	0
ELLIOTT	719045	Single Cell Mining Claim	2024-04-14	Active	400	0
ELLIOTT	719046	Single Cell Mining Claim	2024-04-14	Active	400	0
ELLIOTT	719047	Single Cell Mining Claim	2024-04-14	Active	400	0
ELLIOTT	719048	Single Cell Mining Claim	2024-04-14	Active	400	0
ELLIOTT	719049	Single Cell Mining Claim	2024-04-14	Active	400	0
ELLIOTT	719050	Single Cell Mining Claim	2024-04-14	Active	400	0
ELLIOTT	719051	Single Cell Mining Claim	2024-04-14	Active	400	0
ELLIOTT	719052	Single Cell Mining Claim	2024-04-14	Active	400	0
ELLIOTT	719053	Single Cell Mining Claim	2024-04-14	Active	400	0
TANNAHILL	719917	Single Cell Mining Claim	2024-04-16	Active	400	0
TANNAHILL	719918	Single Cell Mining Claim	2024-04-16	Active	400	0
TANNAHILL	727937	Single Cell Mining Claim	2024-05-24	Active	400	0
TANNAHILL	727938	Single Cell Mining Claim	2024-05-24	Active	400	0

Table 1: List of claims comprising the Tannahill Gold Property (Source: CJP Exploration Inc. option Agreement with Atacama)



Figure 2: Tannahill Gold claim location plan on air photo base (Note: the group of patented surface rights claims is shown in purple hatching).

4.2.3 Environment and Permitting

A work permit (PR-23-000059) was issued to CJP Exploration Inc., Ed Shynkorenko, Peter Hermeston, and Margaret Sigouin for the Tannahill Gold Project by the Ministry of Mines on April 27, 2023. The exploration permit was issued pursuant to subsection 78.3(2) of the Mining Act, R.S.O. 1990, Chapter M.14 and is subject to the requirements of the Mining Act, Ontario Regulation 308/12, the applicable Provincial Standards for Early Exploration and any additional Terms and Conditions in the permit that are specific to the project. The permit, which is effective for a three year period, allows for line cutting, ground geophysical surveys and mechanical drilling naming John Grant of Atacama as the Qualified Supervisor.

As an integral part of the consultation process, copies of the permit application were submitted to various representatives of the following First Nations: Apitipi Anicinapek Nation, Beaverhouse First Nation, Matachewan First Nation, Wabun Tribal Council, Taykwa Tagamou Nation, Mushkegowuk Tribal Council, and the Métis Nation of Ontario Regions 3-5. At the time of writing, the author is not aware of any restrictions, impediments, or modifications to the permitting.

Under the Occupational Health and Safety Act & Regulation for Mine and Mining Plants, notification of diamond drilling must be provided to the Ministry of Labour prior to commencement of work. The Property is not subject to any known environmental or other liabilities.

5. ACCESSIBILITY, CLIMATE, LOCAL-RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Access

The Tannahill Gold Property is located in northeastern Ontario, approximately 35 kilometres northeast of the Town of Kirkland Lake, Ontario in Tannahill and Elliot Townships in the Larder Lake Mining Division. UTM coordinates 592500 E 5359000 N approximate the centre of the group. Access to the Tannahill Gold Property is gained by travelling approximately 12.5 km east along Highway 66 from Kirkland Lake to Highway 672, then north for 31.5 km along Hwy 672 to a bush road designated as R-39, a logging road that tracks northeasterly and then northerly to Highway 101. The property straddles road R-29 about 7.6 km east from the junction with Hwy 672.

5.2 Climate

The Tannahill Gold Property is located within Northeastern Ontario where the climate is continental and moderately humid with short to moderate length warm to hot summers and long, cold winters.

Spring conditions occur between the months of April and June and consist of warming temperatures that see freezing conditions at night and melting conditions in the daytime resulting in melt water run-off of the winter snowpack. Summer brings on extended periods of warmer temperatures with variable amounts of precipitation in the form of rainfall. When rainfall is scarce, extreme fire conditions can result in orders from the Ministry of Natural Resources and Forestry (MNRF) to restrict or terminate many forms of operations in the “bush”. Precipitation in the fall typically increases as temperatures drop below zero in the evenings resulting in the accumulation of snow as early as late October. Temperatures in the winter average -25 degrees centigrade with an average snow fall of 1- 2 metres.

Exploration and development can be conducted year round with most exploration programs conducted in the winter or summer months. In the winter, the ground is frozen allowing access to areas for conducting drilling or geophysical surveys that are too wet or rugged to be explored in the summer, while the summer is more practical for performing mechanical stripping, sampling and geological mapping programs.

5.3 Infrastructure

The Tannahill Gold Property is located in northeastern Ontario, approximately 35 kilometres northeast of the Town of Kirkland Lake, population approximately 8,000, the closest major population centre. Kirkland Lake is a significant past and current gold producing centre with approximately 47 million ounces of gold mined (source: Kirkland Lake Discoveries website) in the district. It is located approximately 100 km east southeast from Timmins, 75 km west of Rouyn- Noranda, and 200 km north northeast of Sudbury. Currently, there are two major gold operations in the area, Agnico Eagle Mines’ Macassa Mine located within the Town of Kirkland Lake, and the Young- Davidson Mine owned by Alamos Gold situated in the Town of Matachewan about 55 km to the southwest.

Most supply and service needs, including emergency medical attention, can be obtained in Kirkland Lake. Commercial air travel, from domestic and international destinations is available to Timmins and Rouyn- Noranda airports while charter air service can be obtained to Kirkland

Lake and Earlton. With the past and current mining in the area, experienced mining personnel are available and adequate infrastructure, including electrical power from a power line running to the former Holt and Holloway Mines along Highway 101 is located within 5.5 km of the property. As noted above, the Tannahill Gold group is easily accessible via logging road R-29 about 7.6 km east from the junction with Hwy 672.

5.4 Physiography

The topography of the area comprises a mix of low patchy outcrop ridges amidst low swampy areas of shallow beaver ponds and meadows. According to the surficial geological mapping of the area by Baker et. al. (1982), Baker (1985), the Tannahill Gold property is underlain by glaciolacustrine clays with local patches of boulder and silty/ sandy till and scattered knobs of outcrop. The results of a recent DGPS survey of drill hole collars and significant features on the property indicate a narrow range of relief of about 20 metres between elevations of 318m and 337m above mean sea level.

Vegetation comprises typical boreal forest consisting mainly of black and white spruce with minor poplar and white birch in the higher areas, and tag alders on the swamp margins and infilling the old drill roads.

6. HISTORY

6.1 Introduction

According to Jensen (1978) the core of the property was first staked in 1931 by V. Jordan after discovering gold about 1980 m northwest of Pinaws Lake. After some pitting and trenching, the property was dropped but restaked by J.A.M. McCloskey in 1935 who subsequently optioned it to Erie Canadian Mines Ltd (Sylvanite) and eventually brought 6 claims of the original claim group to Patent.

Jensen found the claims to be underlain mainly by metavolcanics of the hornblende hornfels facies and cut by numerous small dikes of porphyritic syenodiorite and that some quartz veins cut the volcanic rocks. The syenite porphyry dikes cutting volcanic rocks and gold-bearing quartz veins and are associated with shear zones that strike N45° E to N70° E and dip about 60° S. The quartz veins are from 3.17 mm to 5 cm (1/8 to 2 inches) wide and extend along and within the shear zone for about 60 m (200 feet).

For the purposes of this report, the historical work on the Tannahill Gold group is divided into various major categories- Prospecting/ Trenching, Geology/ Geochemistry, Geophysics and Diamond Drilling- which are summarized below. Location sketches of the work performed are provided on an air photo base for each of the programs described. Work performed on the group by the same operator in successive years is presented as a composite plan.

6.2 Prospecting/ Trenching

Erie Canadian Mines Limited (1935-36) (Figure 3)

A visit was made to a portion of the Tannahill property by G. L. Holbrooke of Erie Canadian Mines Limited in 1936. In his summary report, Holbrooke describes the geology as "Keewatin greenstones intruded by syenite porphyry dikes" with "two types of showings". One type of mineralization comprises a shear zone at 040- 070° with a dip of 60° south in the volcanics that



Figure 3: Location of the 1935 trenching in report by Erie Canadian Mines.

contain 7.62cm (3") quartz stringers spaced about 3.05m (10 ft) apart and carrying free gold with "nothing" noted between the veins. The second, "consists of a mineralized vertical porphyry dyke striking N 70° E. Samples from one pit on this dyke ran 39.00- 19.00 and 4.40." It is assumed that the assays were reported at a value of \$20.00 gold, and therefore equivalent to 66.86 gm/ ton, 32.57 gm/t and 7.54 gm/t gold (Au).

Several additional internal reports included in the file by Erie Canadian Mines Ltd (Sylvanite) cite values returned from various chip samples by Sylvanite samplers from the main trench (sketch included in report) as high as \$2.40 over 36", \$5.20 over 9", and \$17.60 over 10" (4.11 g/t/ 0.91m; 8.91 g/t over 0.23m; 30.17 g/t over 0.25m). Chip samples were assayed in the Sylvanite Gold Mines lab in Kirkland Lake according to the certificates which were included in the report. These reports quote original chip and grab samples, also assayed at the Sylvanite lab, taken by the vendors V. Jordan and J. A. McCloskey which yielded chips to \$5.20 over 42" (8.91 g/t over 1.07m) and grabs as high as \$30.00 (51.43 g/t Au) which suggests that the sample contained visible gold.

Golden, J. C. (1938/ 39) (Figure 4)

In a letter to J. C. Golden dated November 23, 1938, E. S. MacCarthy recommended that the "property" [probably the 6 patented claims] be examined. A second letter by W. J. McDonagh dated May 31, 1939, summarized a visit to the property by McDonagh. He described the geology and structures as being similar to those at Northern Ontario (Kirkland Lake) and Quebec having observed strong shear zones with feldspar porphyry and visible gold-bearing quartz veins.

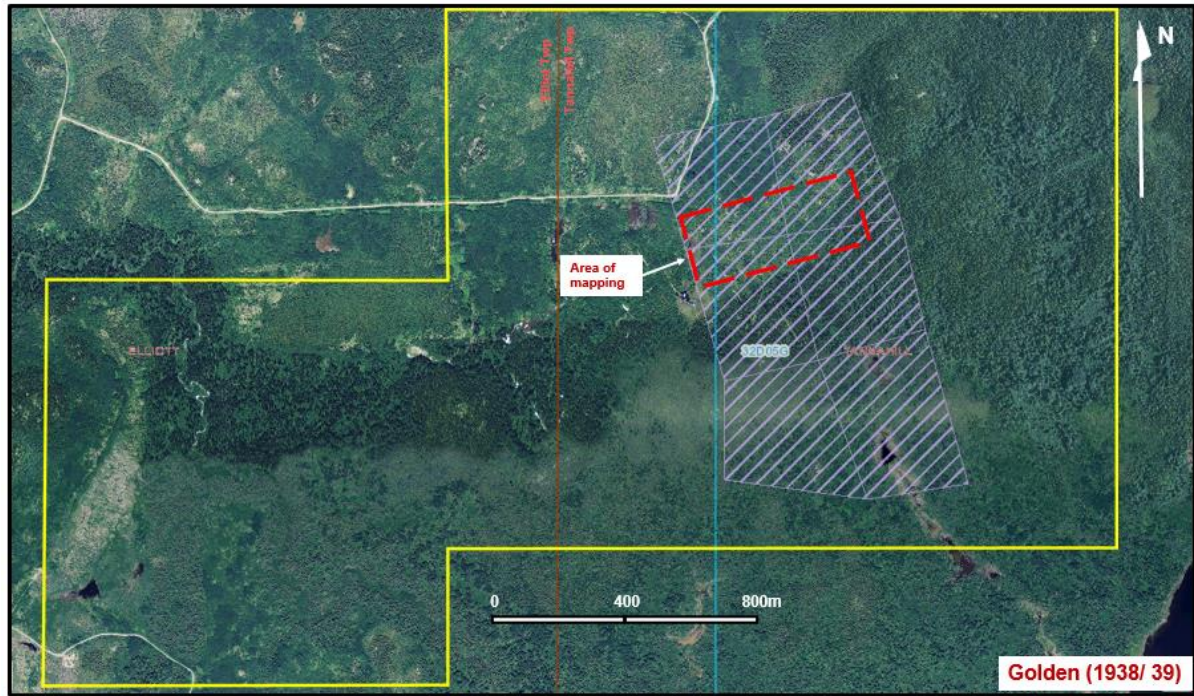


Figure 4: Location of the 1939 mapping and sampling in a letter/ report W. J. McDonagh to J. C. Golden.

Clarke, M. (1977) (Figure 5)



Figure 5: Location of the 1977 trenching sketches by M. Clarke.

The file contains sketches of trenches that were cleaned out by Clarke in 1977 but no assays were reported.

MacKeigan, D. A. (1981) (Figure 6)



Figure 6: Location of the 1981 trenching in report by D. A. MacKeigan.

The report, dated February 11, 1981, includes summaries of sampling of four trenches and three old pits that had been cleaned and partially blasted to obtain fresh samples. The host rocks are described as greenstone cut by narrow reddish porphyry dikes. The greenstone in trench 1 was sheared and contained “numerous fine 1/8” - 1/4” [0.32cm to 0.64cm] veinlets of calcite and quartz but with no continuity as to the direction.” Seven samples were sent to the OGS (Geoservices Laboratory, Certificate Report Number B 12924) for gold and silver assay returning “trace <0.01 opt” (<0.34g/t) except for a slightly elevated value of 0.69g/t Au. The report mentions a 35 ft (10.67m) hole drilled under the exposure, probably the Crossman (1980) hole.

Obradovich, T. (1990) (Figure 7)

T. Obradovich filed a sample plan and assays for a stripped area immediately west of the patented claims. An assay certificate from Swastika Laboratories indicates that 6 of the 9 samples graded better than 0.02 opt (0.69 gm/t), the two highest grading 0.076 and 0.082 opt (2.61/ 3.55 gm/t).



Figure 7: Location of the 1990 stripping and sampling by T. Obradovich.

Bastarache, G (1991) (Figure 8)

The file includes a summary of days spent removing overburden, stripping, washing, blasting and sampling by Bastarache between August 5 and September 14, 1991, on a claim north of the logging road (R-29). Four samples on 2 separate assay certificates were submitted to Swastika Labs (for gold, silver, copper, lead and zinc) but locations are only provided for 2 samples. One sample yielded a slightly anomalous (605ppm) zinc value, the remainder reflected only background elements.

Bastarache, G (1991) (Figure 8)

Bastarache submitted a short report and sketches of several outcrops that were examined on claims south of the logging access road. The sketches, which are crudely drawn and not to scale, show the location of a sample taken on the edge of an outcrop. The certificate for gold from Swastika Labs returned nil.

Bastarache, G (1994) (Figure 8)

G. Bastarache summarized mechanical stripping and blasting in an area adjacent to a previously stripped area north of the forest access road. Although he describes “brecciated pillows with quartz veins with zinc and lead in fractures with a trace of silver and considerable iron pyrite”, no assays were reported.



Figure 8: Location of the 1991 & 1994 trenching in reports by G. Bastarache.

Keast, T. (1999) (Figure 9)

In the summer of 1997, a total of 1,155 'B' horizon soil samples were collected on a portion of the Tannahill Project claim group by Sedex Mining Corp/ Abitibi Mining Corp. In his report on the property, Keast states that “the purpose of the soil survey was to determine if the survey method could successfully identify and delineate a known gold bearing structure on the property. The survey was focussed along a known gold bearing structure, identified in a previous diamond drill program, and VLF survey. Samples were collected at 12.5m spacing along 3 km of strike length of a VLF anomaly coincident with a known gold bearing structure.”

Keast concludes that the soil survey successfully identified the known gold bearing structure over a strike length of 1,100 m via a number of anomalous samples to 173 ppb Au. In addition to identifying the known gold bearing structure, several additional targets were identified with the highest sample of the survey returning 223 ppb Au.

Further exploration including trenching and diamond drilling was recommended to follow up on the known gold bearing structure and the other identified targets.

A second report in the file summarises a trenching program designed to expose a known gold-bearing structure previously identified in drilling, VLF surveys and soil surveys. A total of 1,470 linear metres in 20 separate trenches were excavated, with a total of 206 grab samples collected from the trenches. Drilling on the Tannahill Gold Zone identified parallel upper and lower north- dipping (@ 60°), gold- bearing structures that strike in a northeast/ southwest direction and consist “of pervasive quartz-carbonate-albite alteration with 5-10% disseminated



Figure 9: Location of the 1999 soil sampling survey and stripping in the Sedex/ Abitibi reports by T. Keast.

pyrite with variable quartz veining” in which visible gold was noted. Hand drawn sketches of the trenches displaying the geology and sample locations accompanied the report.

According to Keast, “the trenching program successfully identified the gold bearing structure at a number of locations, with the highest sample returning 9.09 gm/t Au”. This was found to be an isolated high assay in the trench located at L 1+50 E/ 6+00 N which, according to the mapping occurs in a well carbonatized flow breccia unit sheared at around 090 degrees. The most continuous significant values (up to 3.09 g/t Au, *Table 2*, left) were obtained from “fractured flows” in contact with porphyry dikes mapped in the northern part of the trench on the sketch of L 2+40E/ 6+00 N (Figure 10, left, *Table 2*, left) which are identified as the “Lower Zone” on the sketch.

Keast also notes that “several soil anomalies were trenched with the highest assay of 1.71 gm/t Au returned”. Stripping of an outcrop at L 4+14 E/ 6+75 N (Figure 10, right) uncovered a weak to strongly fractured mafic volcanic host which yielded 5 assays between 1.0 and 2.0 g/t Au (*Table 2*, right).

Assay certificates from Swastika Labs were also included. According to G. Lebel, the owner/ manager of Swastika Labs in 1997, samples were fire assayed using a one assay ton charge (about 30 gm) with an AA finish (personal communication).

Additional soil surveys and diamond drilling was recommended to follow up on the known gold bearing structure and the other identified targets.

Trench Line	Location N/S	Sample Number	Au (ppb)	Au (g/t)	Trench Line	Location N/S	Sample Number	Au (ppb)	Au (g/t)
L 2+40 E	6+00 N	12001	1342	1.34	L4+15E	6+75 N	35220	1166	1.17
		9587	1269	1.27			35225	1006	1.01
		9591	3086	3.09			35234	1543	1.54
		9592	720	0.72			35235	1714	1.71
		9593	2743	2.74			35236	1063	1.06
		9594	789	0.79					
		9595	1371	1.37					
		9596	514	0.51					

Table 2: Summary of significant assays from Sedex/ Abitibi trenching program.

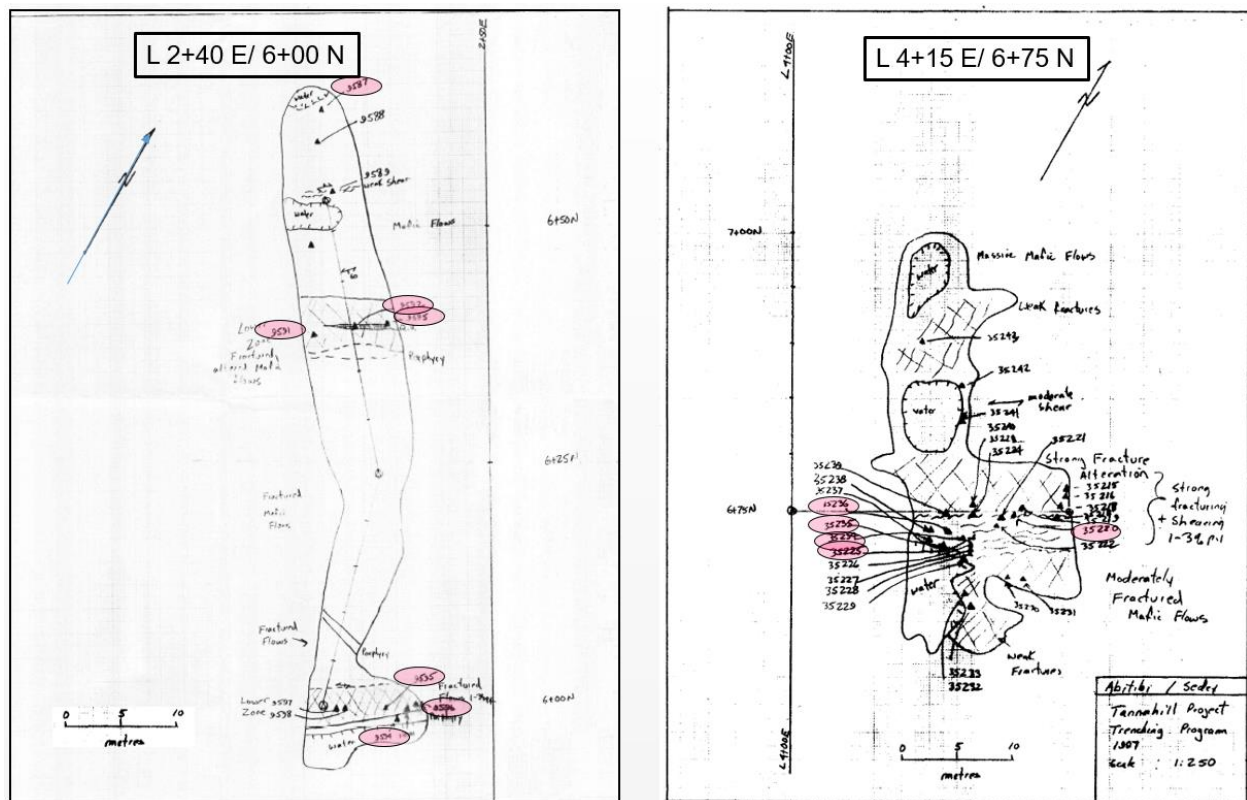


Figure 10: Location sketches of trenches containing significant assays from Sedex/ Abitibi trenching program.

Katrine Exploration (2008) (Figure 11)

In July 2008, Katrine Exploration personnel prospected the western and southern portions of the property to locate and GPS any historic workings for Abitibi Mining Corp. A number of sites were documented during the prospecting surveys including 11 outcrops, 6 trenches, 4 drill hole collars, 3 stripped areas, a pit, a muck pile and a swamp. All of the various features encountered during the survey were described in general terms with rough estimated dimensions of the stripped areas, trenches and pits. Geological details of the outcrops and

stripped features included general descriptions of the host lithologies with mention of mineralization/ veining; samples were taken from the outcrops and stripped areas but no assays were submitted with the report.

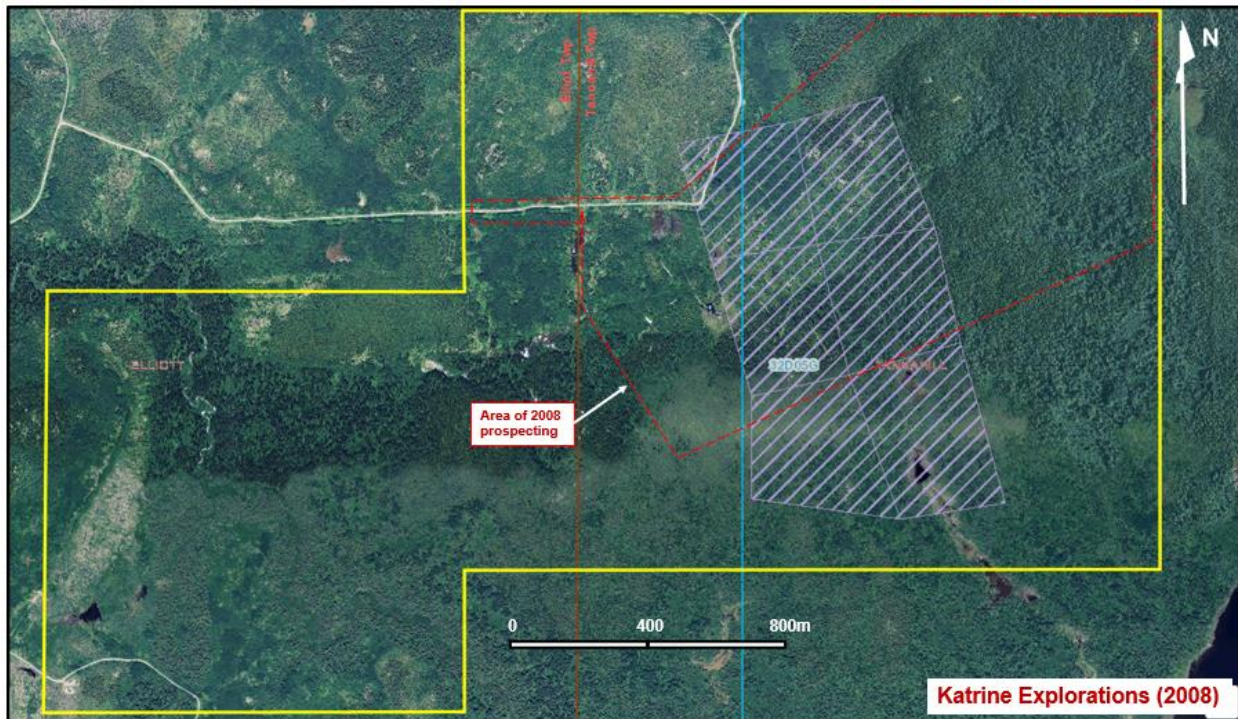


Figure 11: Location of the 2008 prospecting report by Katrine Explorations on the Abitibi Mining Corp property.

In their report, Katrine recommends that the eastern and northern sections of the property be investigated, particularly in areas covering IP and magnetometer anomalies identified in previous geophysical surveys. Additional geophysical surveys and possible drilling is also recommended.

Shynkorenko, E. (2013) (Figure 12)

E. Shynkorenko and P. Hermeston prospected two single unit claims for Abitibi Mining Corp. on May 22, 2013. During the prospecting, two samples of medium grey- green basaltic flow cut by “feldspar and narrow quartz veining” were taken and subjected to gold assay and multi- element analysis. Gold assays from Swastika Labs returned only background gold and base metal values.

Shynkorenko, E. (2013) (Figure 12)

A program of 3 man days prospecting, sampling and mapping between June 22 and July 6, 2014, was conducted by E. Shynkorenko on a 4 unit claim held by Abitibi Mining Corp. located immediately east of the group of surface right patents. The area traversed is underlain by “pillowed basalt trending to a greenish schist type rock” and included several old trenches. No

significant gold values were obtained from two samples submitted to Swastika Labs (certificate appended to original report).

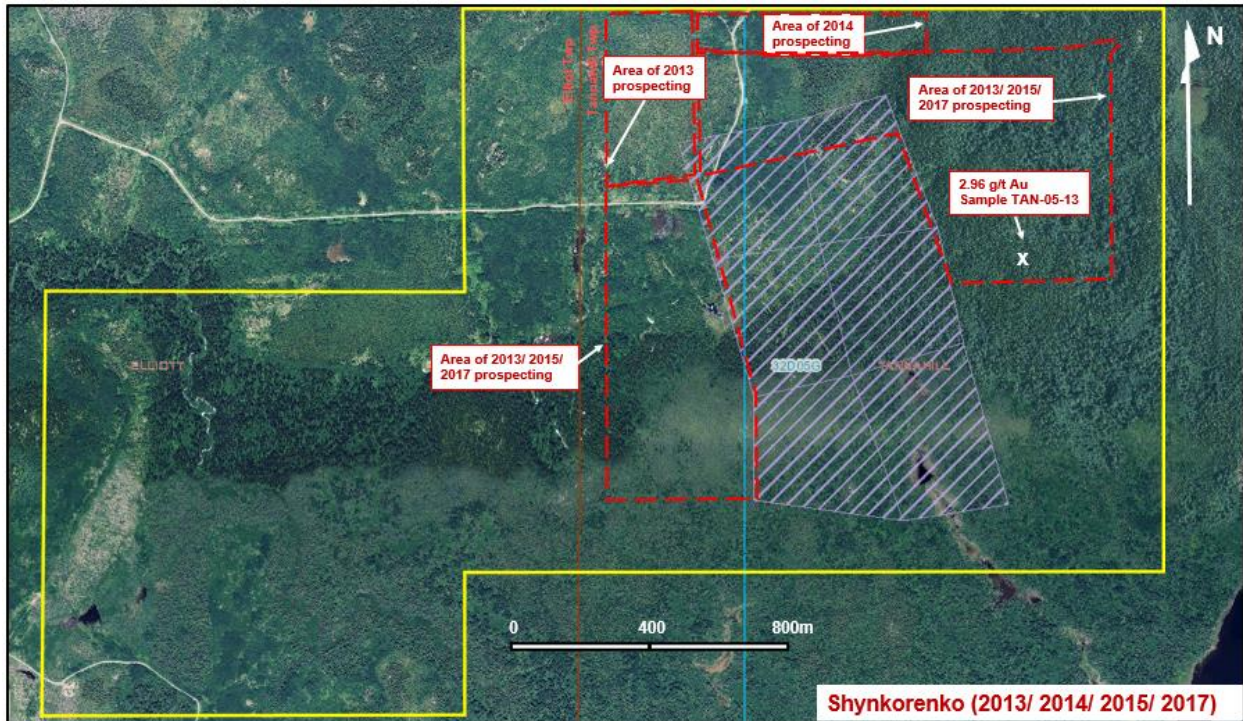


Figure 12: Composite location plan of the various 2013 to 2017 prospecting reports by E. Shynkorenko.

Shynkorenko, E. (2013) (Figure 12)

On August 6, 2013, E. Shynkorenko and P. Hermeston prospected a four unit claim on behalf of Abitibi Mining Corp. The work concentrated “along the south wall of the previously identified fault zone” from which two samples were taken. “One of the two grab samples taken, (TAN-06-13), produced an Au value of 2.96 g/t, which ... did not display any mineralization and was taken merely to ascertain what, if anything, the local/hosting igneous rock types might contain”. The Swastika Labs assay certificate is appended to the report.

Shynkorenko, E. (2014) (Figure 12)

A program of 3 man days prospecting, sampling and mapping was conducted by E. Shynkorenko on a 4 unit claim held by prospector P. Hermeston between June 24 and July 5, 2014. Only a narrow strip along the northeast corner of the Atacama Group was covered by this prospecting. The Swastika Lab certificated returned 19 ppb Au.

Shynkorenko, E. (2015) (Figure 12)

E. Shynkorenko and claim holder P. Hermeston continued prospecting on a 4 unit claim (L4269515), part of which they had examined in 2013. On October 4, 2014, they conducted an east- west traverse along a minor creek described as “most likely formed by the known fault” in

the northern section of the claim, taking “one grab sample of float”, possibly from a small outcrop of basalt and pyroclastics. It yielded 23 ppb Au, 2.8 ppm Ag, 58 ppm Cu and 41 ppm Ni according to the Swastika Labs certificate.

Shynkorenko, E. (2015) (Figure 12)

On August 11, 2015, 2 man days of prospecting were conducted on a 4 unit claim by E. Shynkorenko and claim holder P. Hermeston immediately west of the former patented claim group. Portions of this claim were covered in 2013 and 2014 prospecting traverses. The report pictures a rounded pebble of “tonalite” which was sampled by Swastika Labs, returning nil Au but 29.1ppm Ag.

Shynkorenko, E. (2015) (Figure 12)

Prospecting, hand sampling, and mapping was conducted on the 4 unit claim by E. Shynkorenko and claim holder P. Hermeston on September 17th, 2015. A total of 4 grab samples were taken one of which, a possible “diabase intersected with several small veins of quartz-silica” (TANA-04-15) was assayed for gold, silver and copper. The Swastika Lab assay certificate returned no significant values.

Shynkorenko, E. (2017) (Figure 12)

A 4 unit claim was prospected by E. Shynkorenko and prospector P. Hermeston on June 29, 2016. The two located and sampled an outcrop near old trenches which had been channel sampled by a previous operator. According to Shynkorenko, two samples were assayed yielding less than 0.05 gm/t Au. The report did not include any assay certificates.

Shynkorenko, E. (2017) (Figure 12)

E. Shynkorenko and prospector P. Hermeston prospected a 4 unit claim held by the latter on May 3, 2017. Two soil samples from the upper B horizon were taken over a projected gold – bearing fault were taken and assayed for gold. Shynkorenko reports that “the assayed samples produced low Au values”. Although the report states that the certificates and costs are included in Appendix “G”, the assay certs are not included in the report obtained from the Ministry database.

Shynkorenko, E. (2022) (Figure 13)

Two man days of prospecting were conducted as a follow up to a value of 2.96 g/t Au obtained during a prospecting traverse to this general area in 2013. The current traverse was conducted by E. Shynkorenko and P. Hermeston on November 3, 2022. In total, 5 samples were taken from outcrops of “rust stained basalt adjacent to small veins of silica and minor quartz”. According to assay certificates from Actilabs, the samples were assayed for gold by FA-AA (1A2) and multielement by AR-ICP (1E3), returning, 7ppb Au and low background values of base metals.



Figure 13: Location plan of the 2022 prospecting report by E. Shynkorenko.

6.3 Geological Mapping

Obradovich, T. (1989) (Figure 14)



Figure 14: Location plan of the 1989 geological mapping report by T. Obradovich.

Geological mapping was conducted on north- south compassed and chained grid lines spaced at 400 foot (121.92m) centres off an east- west base line. Obradovich states that “the rock types in the claim block consist of Precambrian (Archean) age volcanics of the calc-alkaline chemical suite. They are basaltic to andesitic in composition and are mapped as massive flows, pillowed breccias, pyroclastic breccias and tuff. The volcanics have been intruded by syenites and rnonzonites. Syenitic pegmatite dykes cross several of the metabasalt outcrops.” He notes that the background regional greenschist metamorphism becomes amphibolitic adjacent to felsic intrusive rocks.

Obradovich did not report encountering any historical workings or taking any samples. He hypothesises that a possible underlying intrusive stock may have pre- structured the host volcanics for localizing the felsic dykes and possible gold mineralization. Recommendations in his report include: structural mapping; gravity and magnetic surveys in conjunction with probing overburden depths to delineate the underlying intrusive and locate structures; and, drilling of targets outlined by the mapping and geophysics.

Keast, T. (1999) (Figure 15)



Figure 15: Location plan of the 1999 geological mapping report by T. Keast.

The mapping was conducted on a section of the Tannahill property as a follow up on the discovery of gold mineralization in two diamond drill holes from a previous phase of exploration. Mapping and prospecting had identified a thick sequence of massive and pillowed mafic volcanic flows, with a number of narrow syenite dykes. Keast reports that of 55 grab samples collected during the mapping program, several samples returned anomalous gold assays with the highest assay returning 1.92 gm/t Au (sample #20349). However, a table showing the

locations for each sample were not provided and the location of the highest reported assay (sample #20349) could not be located on the plan provided. Four assay certificates from Swastika Laboratories containing 66 gold assay results are appended to the report suggesting that the high sample of 1.92 gm/t Au may be from a batch of 11 samples from another property that was included with the Keast samples. Considering this discrepancy, the highest assay that can be confirmed on the property (sample #30344; 1.07 gm/t Au) was obtained on the south boundary of the claim group. Additional diamond drilling and soil geochemical surveys were recommended to evaluate the gold bearing structures and identify additional structures.

6.4 Geophysics

Campbell, R. A. (1988) (Figure 16)



Figure 16: Location plan of the 1988 airborne magnetometer survey report by R. A. Campbell of H. Ferderber Geophysics Ltd. for T. Obradovich

In 1988, H. Ferderber Geophysics was contracted to fly an airborne Magnetic and VLF-electromagnetic survey over the Obradovich property. Overall, 28.8 line miles (46.35km) were flown in a north- south direction at 300 foot (91.44 m) spacing at an altitude of 300 (91.44 m) feet using a Cessna 172 fixed wing aircraft.

The magnetic data indicates that the central part B of the property is underlain by metamorphosed mafic and ultramafic rocks, possibly gabbro, diorite and/ or lamprophyre whereas the magnetic relief over the rest of the property is low suggesting that the rocks underlying these regions are relatively homogeneous in composition, containing similar amounts of magnetite.

Four conductive zones were outlined on the property by the airborne VLF-EM survey three of which are interpreted as representing shears in metavolcanic or ultramafic rocks, and the fourth,

possibly caused by conductive overburden. It was recommended that ground magnetic and horizontal loop electromagnetic surveys be performed to better define the underlying geology and to delineate and classify conductive zones

Hobbs, L. G. (1989) (Figure 17)



Figure 17: Location plan of the 1989 magnetometer & VLF-EM survey report by L. G Hobbs on the Bastarache property.

In November of 1989, L. G. Hobbs conducted magnetometer and VLF electromagnetic surveys over a portion of the Bastarache property covering areas where prospecting “had revealed considerable amounts of pyrrhotite and associated low gold values.” A grid consisting of 0.9 miles (1.45km) of base line at an azimuth of 29 degrees (true) and 7.4 miles (11.91km) of cross lines, was cut prior to surveying. Cross lines were variably spaced from 150 ft. separation to 400 ft. separation to provide more detail in the most promising area.

The magnetic survey indicates that the contours have a north-easterly elongation with some tighter contours in the middle of the survey area reflecting shallower overburden and more topographic relief.

Five anomalous zones were identified by the VLF surveys (using the Annapolis transmitting station), two of which were clearly defined within the surveyed area, the remaining three which were located more on the edges. Zone A is coincident with a topographic low but also where the claim holder uncovered disseminated sulphides in outcrop. Hobbs interprets zone D as an offset extension of A. Although anomaly B crosses the property, it tracks along a topographic gully and

therefore was interpreted as overburden related. Located at the west edge of the survey area, zone C was believed to be a true bedrock conductor. Finally, zone E lies on the east edge in an area of overburden cover but may be related to a bedrock conductor.

Hobbs recommended further evaluation of the property by MaxMin and/ or Induced Polarization geophysical surveys and geochemical vegetation or soil surveys. He also believes that possible bedrock conductors identified in the airborne VLF survey are skewed to the Bastarache grid and that part of the grid could be re- surveyed using the Cutler station. Stripping with a backhoe or bulldozer was recommended in areas of shallower overburden around zone A.

Campbell, R. A. (1990) (Figure 18)



Figure 18: Location plan of the 1990 airborne magnetometer survey report by R. A. Campbell of H. Ferderber Geophysics Ltd. for T. Obradovich

H. Ferderber Geophysics was contracted to fly a combined airborne Magnetic and VLF-electromagnetic survey over the Obradovich property in January 1990, collecting 29.75 line miles (47.88 km) of data. From the survey, it was determined that the underlying rocks were “fairly homogenous intermediate metavolcanic and pyroclastic rocks containing a southeast striking fault zone and two south- southwest trending conductive zones”. A conductive zone was interpreted as an extension of a known fault that, at the point where it crosses the fault interpreted from the airborne magnetic survey, was recommended to be targeted for gold potential via ground geophysical follow up.

Hobbs, L. G. (1990) (Figure 19)



Figure 19: Location plan of the 1990 VLF-EM survey and geochemical test lines report by L. G Hobbs on the Bastarache property.

In May 1990, L. Hobbs ran several VLF and geochemical test lines and spent one day examining rock exposures on several of Bastaraches' claims to help evaluate the gold potential of certain anomalies identified on the 1989 geophysical surveys. Three north- south VLF lines south of the lumber road, which were run on strike of known gold bearing zones in an area of extensive overburden cover, detected three anomalies interpreted as "caused by bedrock conductivity".

Two partial lines of 5 and 11 white spruce bark samples were taken for geochemical analysis to Accurassay Laboratories to determine if any of the VLF anomalies might coincide with elevated gold or arsenic values. Gold assays ranged from less than 5ppb to 17 ppb while arsenic was less than 3 ppm.

Hobbs also spent a day examining the exposures in the stripped areas north of the lumber road and conducted a 5 sample geochemical test west of the main stripped area. He determined that the stripped areas are underlain by pillowed flows with flow top breccias cut by flat lying quartz-carbonate veins. No rock samples were taken for assay but minor sphalerite was observed in the veins and pyrrhotite and chalcopyrite grains noted in the flows.

According to Hobbs "five soil samples (EN1 to EN5) were taken from claim L1110716 on the west side of and down the drainage slope from the main stripped area". With gold assays less than 0.5 ppb and arsenic values below 3 ppm, he concluded that "that significant gold mineralization is unlikely to be present in the main pit area".

Bastarache, & G. Mathias, A. 1991 (Figure 20)



Figure 20 Location plan of the 1991 IP survey report by Remy Belanger on the Bastarache & Mathias property.

An Induced polarization survey was contracted to Remy Belanger Enrg in July 1991 to cover the Bastarache property. The survey, which traversed 9.0 line km, was intended “to outline stratigraphic horizons of disseminated sulphides.” From the survey, Belanger interpreted 4 anomalous horizons for which he recommended 3 diamond drill holes of 100m each for 3 of the targets.

Carmichael, S. (1996) (Figure 21)

The exploration program, consisting of gridding, total field magnetics, VLF-EM surveying and selective coverage by a Time Domain Induced Polarization survey, was submitted as fulfilment of reporting requirements for the Ontario Prospectors Assistance Program (OPAP) grant OP95-005. A total of 25 km of grid with a line spacing of 100m was cut with stations established at 25m intervals and surveyed between July and December 1995.

Readings for the Magnetometer survey taken at 12.5m intervals yielded a consistently low response interpreted as reflecting the calc- alkali chemistry of the host volcanics with three local elevated magnetic zones representing syenitic intrusives.

The VLF survey indicated a total of 11 weak conductors of which A, C, and F were considered the most important. Anomaly A is a linear feature that may represent a northeast striking fault that parallels a structure hosting a gold showing to the south. Carmichael interprets anomaly C

and F as marking contacts with syenitic intrusives, and, G, H, and I as representing one west striking feature.



Figure 21: Location plan of the 1995 magnetometer, VLF-EM and selective IP surveys report by S. Carmichael on the Bastarache property.

A total of 2 kilometres of Time Domain I. P. was completed by Ryan Explorations to define a possible geophysical response over the gold occurrence. Chargeability anomalies that may be associated with disseminated sulphide mineralization were found to be roughly coincident with a known gold occurrence.

Carmichael recommends that the IP anomalies be drilled, that VLF anomalies C, G, H and I be covered with an IP survey, and that the on strike extension of these anomalies to the east be examined.

Val D'Or Sagax (1996) (Figure 22)

A dipole-dipole array induced polarization and resistivity (IP) survey amounting to 11.4 line-kilometers was performed on the Sedex Mining Corp property in Tannahill Township. A total of 13 grid lines cut every 50 or 100 metres from LO+00 to L12+OOE and striking N30°W were covered. The IP survey detected important resistive areas interrupted by the conductive areas, and three moderate to strong polarization axes associated with a significant decrease of the apparent resistivity. It was recommended that the IP coverage be extended to better understand the anomalies for follow up diamond drilling.



Figure 22: Location plan of the 1996 IP survey report by Val d'Or Sagax on the Sedex Mining Corp property.

Meegwich Consultants Inc. (1997) (Figure 23)



Figure 23: Location plan of the 1997 VLF-EM survey report by Meegwich Consultants on the Sedex Mining Corp property.

A program of linecutting and geophysical surveying was carried out By Meegwich Consultants on the large group of Sedex Mining Corp claims encompassing most of the Tannahill Gold Group. In total, 133.8 km of grid lines and 16.2 km of baselines/ tie lines running at 060 degrees were cut and surveyed using a Geonics EM-16 VLF receiver. A total of 5,320 readings were taken at 25m intervals.

Overall, 96 conductors, most of which were weak responses interpreted as having a non-metallic source, were picked up by the survey. Of these, 39 were interpreted as displaying the desired in-phase and quad-phase characteristics that were “more likely to have a bedrock metallic source”. Meegwich grouped these conductors according to their 4 general trends at East- West, East Northeast, Northeast, and Southeast which roughly mimic the stratigraphy and possible fracture sets.

It was concluded that “the stronger VLF conductors may represent mineralised shear zones and warrant further investigation. The conductors should be followed up with a program of horizontal loop EM and induced polarisation in combination”. The southeast trending structure outlined by 7 conductors should be investigated/ interpreted.

Larder Geophysics Ltd (2008) (Figure 24)

Magnetometer and VLF surveys, which covered 4 line kilometers of the Tannahill property, were conducted by Larder Geophysics for Golden Chalice Resources Inc. in March 2008. The survey outlined “a large magnetic variation” and that “a weak VLF EM signature can be seen rimming



Figure 24: Location plan of the 2008 VLF-EM survey reports by Larder Geophysics on the Golden Chalice/ Abitibi Mining property.

this magnetic variation” in the southeast corner of the surveyed area. Also noted was “a small east-west magnetic fabric coincident with a VLF EM axis near the north end of the survey area.”

Larder Geophysics Ltd (2008) (Figure 24)

A total of 11.2 line kilometers of mag/ VLF was read every 25m on a grid established by GPS lines during Phase 2 of the Tannahill Property survey between March 14 and 20, 2008. The survey, conducted for Abitibi Mining Corp., uncovered a possible error with the magnetic data collected in the southeast corner of the previous survey requiring re- surveying of the area.

The survey determined that “The strong magnetic feature has been constrained from north to south. It appears to be approximately 150m wide and striking east to west. Strong magnetic readings can be seen on the northern edge of the property and may indicate the continuation of this intensely magnetic body.” Near the north end, a narrow east- west trending magnetic fabric may indicate a narrow dike or contact with a coincident VLF-EM anomaly. Otherwise, “only weak VLF EM crossovers can be seen within the survey area”.

Larder Geophysics Ltd (2008) (Figure 25)

The survey for Abitibi Mining Corp. consisted of 53.575 line kilometers of HLEM MaxMin read between September 17th and October 15th, 2008. In total, 4286 readings were taken in 222Hz, 444Hz, 888Hz, 1777Hz and 3555Hz at 12.5m intervals.



Figure 25: Location plan of the 2008 MaxMin survey report by Larder Geophysics on the Abitibi Mining property.

The survey identified three weak in-phase responses that were interpreted as representing an “overburden type anomaly” while the axes of larger out-of-phase responses “may indicate the presence of structural units or geological contacts”. As only part of the total grid was surveyed, it was recommended that the remainder be completed and extended to cover a previously located magnetic feature to the east.

CJP Exploration Inc. (2015) (Figure 26)



Figure 26: Location plan of the 2015 Spectrometer survey report by J. Ploeger over part of the Tannahill Gold Property

A “no grid spectrometer” survey totalling 0.825 line km was conducted by J. Ploeger over a portion of the Tannahill Gold property in November 2015. Readings for K (%), Th (ppm) and U (ppm) as well as GPS coordinates were recorded at 100m intervals. According to Ploeger, “no anomalous areas were located with this survey”.

6.5 Diamond Drilling

Crossman, P. (1980) (Figure 27)

One hole totalling 35 feet (10.67m) was drilled by Patrick Crossman in May 1980. According to the log, the hole intersected hard, fine grained greenstone cut by 1/8”- 1/4” (0.32cm to 0.64cm) veinlets of quartz and calcite with weak mineralization. No assays were reported. Only a small location sketch was included in the file, however while prospecting the property, the writer located a drill hole collared in bedrock which matches the parameters of the Crossman hole.



Figure 27: Location plan of the 1980 drill hole by P. Crossman

Lovell, H. (1991) (Figure 28)



Figure 28: Location plan of the 1991 drill hole on the Bastarache- Matthias property logged by H. Lovell.

A hole drilled by Heath and Sherwood to a depth of 315 ft (96.01m) on the Bastarache- Matthias Property was logged by Lovell in September 1991. According to the log, the hole intersected a series of calc- alkali flows with flow brecciated and amygdaloidal contact zones cut by a 6 ft (1.83m) feldspar porphyry dike. Five samples sent to Swastika Labs for gold assay all returned nil (certificate included in file).

Carmichael, S. J. Consultants (1995) (Figure 29)



Figure 29: Location plan of the 1995 drill holes on the Bastarache- Matthias property logged by S. Carmichael.

The report by Carmichael covers one drill hole by Bastarache (BE95-1- 152.4m) under an OPAP grant and a second by Greater Lenora Resources Corp. (BE95-2- 120.7m) who had subsequently optioned the property from Mr. Bastarache. For an unknown reason, the description of the Bastarache drilling has been blacked out in the report however, both logs are included. Both holes, which apparently targeted IP anomalies along strike of the gold mineralization to the west, were completed between June 1st and June 14, 1995. Swastika Lab certificates from hole BE95-1 indicate that the Bastarache hole was assayed for cobalt, copper and zinc, returning a slightly anomalous value of 269 ppm Zn while the Lenora hole, BF95-2, was only tested for gold with a best assay of 10 ppb Au.

Carmichael, S. J. (1996) (Figure 30)

Four holes totaling 412.50m were drilled in the vicinity of the main showing for Sedex Mining Corp/ Abitibi Mining Corp by Lafrenière Drilling in February 1996. Details of the drill holes are provided in Table 3. Because the casings were pulled, the drill hole coordinates were georeferenced from the drill plans included in the report.

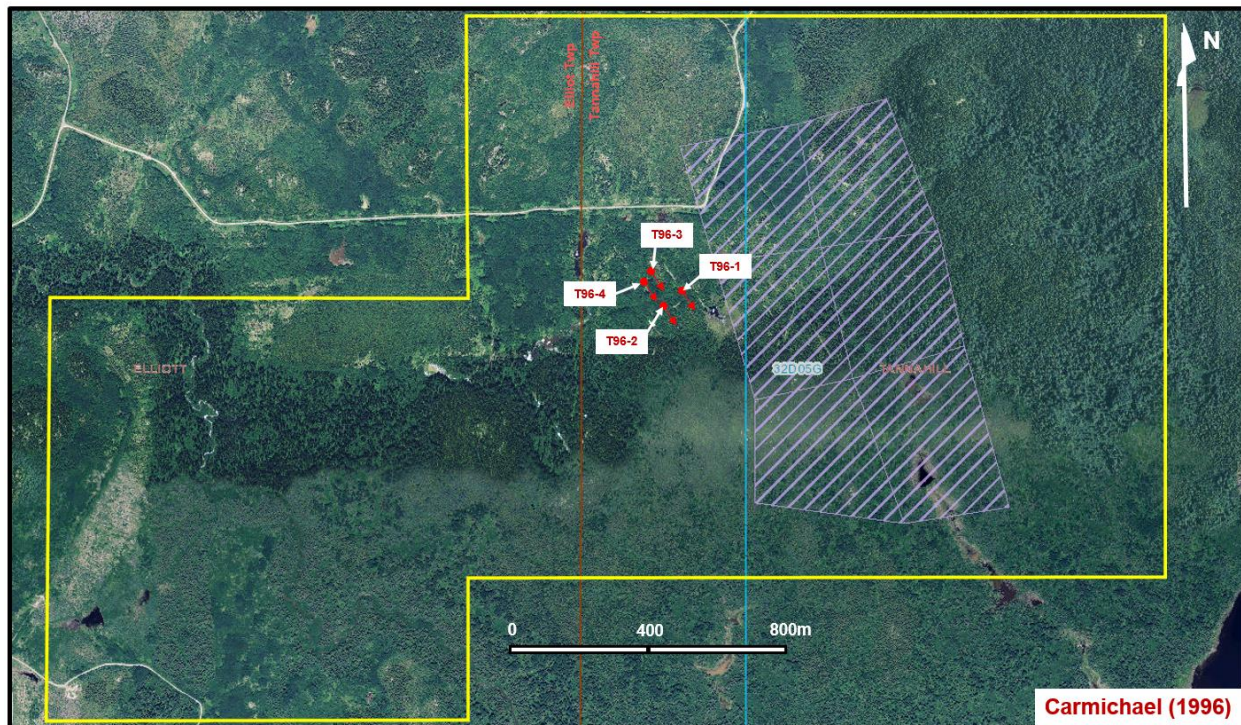


Figure 30: Location plan of the 1996 drill holes on the Sedex/ Abitibi Mining Corp property logged by S. Carmichael.

Hole ID	Location Method	UTM Easting	UTM Northing	Elev	Azim	Dip	Depth
T-96-1	Casing Pulled	592356	5359204	322	150	-45	121.95
T-96-2	Casing Pulled	592310	5359092	320	150	-45	121.95
T-96-3	Casing Pulled	592266	5359255	327	150	-45	31.40
T-96-4	Casing Pulled	592225	5359222	320	150	-45	137.20

Table 3: Drill hole summary from Sedex/ Abitibi Mining Tannahill Twp. drill program.

According to the logging by Carmichael, the holes intersected a package comprised of interbedded intermediate and mafic volcanics cut by narrow diabase, feldspar porphyry and mafic syenite dikes. Each hole intersected a “mineralized zone” which he describes as “light grey to buff moderately to highly silicified and moderately carbonatized”. In places, it is weakly hematized, locally brecciated with quartz flooding, and mineralized with up to 10% pyrite. The best individual assay of 6.27 g/t Au over 0.6m which is included within a composite of 3.25 g/t Au over 2.8m, occurs near the start of hole T-96-1. Table 4 summarizes the most significant assays of each hole. Although assay results are provided in ppb on the logs, no assay certificates were submitted with the file.

Drill Hole ID	Sample Number	From (m)	To (m)	width (m)	Au (ppb)	Au (g/t)
T-96-1	3214	5.70	6.30	0.60	6274	6.27
T-96-1	3215	6.30	7.30	1.00	3154	3.15
T-96-1	3216	7.30	7.85	0.55	2297	2.30
T-96-1	3217	7.85	8.50	0.65	1406	1.41
	OR	5.70	8.50	2.80	3248	3.25
T-96-2	3241	54.00	55.00	1.00	177	0.18
T-96-2	3242	55.00	56.00	1.00	60	0.06
T-96-2	3243	56.00	56.58	0.58	672	0.67
	OR	54.00	56.58	2.58	243	0.24
T-96-3	3232	24.22	25.00	0.78	1200	1.20
T-96-3	3233	25.00	26.00	1.00	1817	1.82
T-96-3	3234	26.00	27.00	1.00	1920	1.92
T-96-3	3235	27.00	28.20	1.20	1749	1.17
T-96-3	3236	28.20	29.50	1.30	377	0.38
	OR	24.22	29.50	5.28	1375	1.38
T-96-4	3245	55.60	56.40	0.80	377	0.38
T-96-4	3250	90.20	91.30	1.10	343	0.34

***Table 4: Summary of significant assays from Sedex/ Abitibi
Tannahill Township drill program.***

Keast, T. (1998) (Figure 31)



Figure 31: Location plan of the 1996- 97 drill holes on the Sedex/ Abitibi Mining Corp property logged by T. Keast.

The report summarises the 6 phases of drilling carried out between February 17, 1996, and April 18, 1997, consisting of 40 holes aggregating 6171.16 metres for Sedex Mining Corp/ Abitibi Mining Corp. No details of the core size or drill contractor are provided in the report, however the logs indicate that the drilling of holes T96-1 to 5 and 9 to 11 were drilled by Lafreniere Drilling, T96- 6 to 9 by Marathon Drilling, T96-11 to T97-29 by Heath and Sherwood drilling and the remainder (T97-30 to 40), completed by Lafreniere Drilling (log of T97-31 indicates Heath and Sherwood as contractor). Assay certificates reveal that the assaying was split between Swastika Laboratories and Inchcape Testing Services (Bondar Clegg).

Hole #	Purpose	Location	Az/dip	Start	End	E.O.H. Metres	Program Total	From Metres	To Metres	Width Metres	Assay gm/t Au
T-96-1	Zone	L 2+00 E / 6+12 N	Az 150/-45	Feb 17/96	Feb 19/96	121.95		5.70	8.50	2.80	3.25
T-96-2	IP Anomaly	L 1+00 E / 5+50 N	Az 150/-45	Feb 20/96	Feb 22/96	121.95		No significant results			
T-96-3	IP Anomaly	L 1+50 E / 7+00 N	Az 150/-45	Feb 24/96	Feb25/96	31.40		No significant results			
T-96-4	IP Anomaly	L 1+00 E / 7+00 N	Az 150/-45	Feb 25/96	Feb27/96	137.20	412.50	90.20	91.30	1.10	0.34
T-96-5	IP Anomaly	L 1+00 W / 5+50 N	Az 150/-45	Jul 16/96	Jul 18/96	232.33	232.33	No significant results			
T-96-6	Zone	L 2+37 E / 6+16 N	Az 180/-45	Aug 28/96	Sept 4/96	60.86		29.00	32.00	3.00	2.8
T-96-7	Zone	L 1+85 E / 6+69 N	Az 180/-45	Sept 7/96	Sept 9/96	80.16		No significant results			
T-96-8	Zone	L 2+70 E / 6+69 N	Az 180/-45	Sep 10/96	Sep 11/96	101.00	242.02	56.50	67.50	11.00	1.77
T-96-9	Zone	L 3+00 E / 7+00 N	Az 150/-45	Dec 3/96	Dec 4/96	129.84		94.00	99.00	5.00	5.16
T-96-10	Zone	L 1+50 E / 6+50 N	Az 150/-45	Dec 5/96	Dec 6/96	98.15		81.00	83.00	2.00	0.67
T-96-11	Zone	L 2+50 E / 7+40 N	Az 150/-60	Dec 6/96	Dec 9/96	179.53		118.00	123.00	5.00	4.8
T-96-12	Zone	L 3+00 E / 7+79 N	Az 150/-60	Dec 10/96	Dec 12/96	209.09		172.00	177.00	5.00	1.77
T-96-13	Zone	L 4+00 E / 7+04 N	Az 150/-45	Dec 12/96	Dec 14/96	148.13		55.00	56.00	1.00	1.51
T-96-14	Zone	L 2+00 E / 8+20 N	Az 150/-60	Dec 15/96	Dec 17/96	301.75		251.00	253.00	2.00	1.68
T-96-15	Zone	L 2+00 E / 7+20 N	Az 150/-60	Dec 17/96	Dec 19/96	160.32	1226.81	98.80	102.50	3.70	7.02
T-97-16	IP Anomaly	L 12+00 E / 5+25 N	Az 150/-45	Jan 13/97	Jan 15/97	167.00		No significant results			
T-97-17	IP Anomaly	L 10+00 E / 5+12 N	Az 150/-45	Jan 15/97	Jan 18/97	153.00		No significant results			
T-97-18	IP Anomaly	L 10+00 E / 6+25 N	Az 150/-45	Jan 18/97	Jan 21/97	155.00		No significant results			
T-97-19	IP Anomaly	L 9+00 E / 3+75 N	Az 330/-45	Jan 21/97	Jan 23/97	68.00		No significant results			
T-97-20	IP Anomaly	L 7+00 E / 8+67 N	Az 150/-45	Jan 24/97	Jan 27/97	119.00		No significant results			
T-97-21	IP Anomaly	L 6+95 E / 8+25 N	Az 150/-45	Jan 27/97	Jan 28/97	74.00		No significant results			
T-97-22	Zone	L 2+00 E / 6+72 N	Az 150/-45	Jan 28/97	Jan 30/97	70.00		42.00	46.00	4.00	1.55
T-97-23	Zone	L 3+00 E / 6+56 N	Az 150/-45	Jan 30/97	Feb 1/97	77.00		38.00	39.00	1.00	2.60
T-97-24	Zone	L 3+50 E / 6+56 N	Az 150/-45	Feb 1/97	Feb 2/97	77.00		41.00	42.00	1.00	1.00
T-97-25	Zone	L 4+00 E / 6+64 N	Az 150/-45	Feb 2/97	Feb 4/97	77.00		54.00	54.64	0.64	0.59
T-97-26	Zone	L 2+00 E / 6+40 N	Az 150/-45	Feb 4/97	Feb 5/97	59.00		10.50	11.50	1.00	2.61
T-97-27	Zone	L 2+50 E / 6+20 N	Az 150/-45	Feb 5/97	Feb 6/97	41.00		31.50	33.50	2.00	1.16
T-97-28	Zone	L 3+00 E / 6+25 N	Az 150/-45	Feb 6/97	Feb 7/97	49.00		21.00	22.00	1.00	
T-97-29	Zone	L 4+50 E / 6+90 N	Az 150/-45	Feb 7/97	Feb 8/97	59.00	1245.00	No significant results			
T-97-30	Zone	L 2+50 E / 7+00 N	Az 150/-60	Mar 4/97	Mar 5/97	143.00		106.00	108.00	2.00	2.76
T-97-31	Zone	L 3+00 E / 7+20 N	Az 150/-58	Mar 5/97	Mar 7/97	170.00		121.00	124.00	3.00	2.02
T-97-32	Zone	L 3+50 E / 7+10 N	Az 150/-60	Mar 7/97	Mar 9/97	158.00		71.00	72.75	1.75	5.21
T-97-33	Zone	L 3+50 E / 7+70 N	Az 150/-60	Mar 10/97	Mar 12/97	221.00		197.50	199.50	2.00	4.54
T-97-34	Zone	L 2+50 E / 7+95 N	Az 150/-60	Mar 12/97	Mar 14/97	230.00		211.00	213.00	2.00	4.83
T-97-35	Zone	L 1+50 E / 7+20 N	Az 150/-60	Mar 15/97	Mar 17/97	218.50		187.50	188.50	1.00	0.20
T-97-36	Zone	L 2+00 E / 7+60 N	Az 150/-60	Mar 17/97	Mar 20/97	251.00		208.50	209.45	0.95	0.17
T-97-37	Zone	L 4+00 E / 7+90 N	Az 150/-60	Mar 20/97	Mar 22/97	215.00		179.00	181.00	2.00	1.89
T-97-38	Zone	L 1+00 E / 7+45 N	Az 150/-60	Mar 23/97	Mar 25/97	224.00		197.00	198.00	1.00	0.41
T-97-39	Zone	L 3+00 E / 8+47 N	Az 150/-60	Mar 25/97	Mar 28/97	290.00		263.50	266.50	3.00	3.20
T-97-40	Zone	L 3+00 E / 9+70 N	Az 150/-60	Mar 29/97	Apr 18/97	692.00	2812.50	No significant results			

Table 5: Drill hole summary and significant composite assays from Sedex/ Abitibi Mining Tannahill Twp. drill program.

A summary of the details of the 6 phases of the 1996- 97 drilling and the composite averages of the significant intersections is provided in the report by Keast and duplicated in Table 5. An updated summary of drill hole locations and composites is provided in **Section 10 (Drilling)**.

Keast concluded that the drilling “identified two parallel highly prospective north dipping gold bearing structures (2nd order structures) related to a large vertical structure (1st order structure). The gold bearing structures (Lower Zone and Upper Zone), consist of pervasive quartz-carbonate-albite alteration with 5-10% disseminated pyrite with variable quartz veining. Gold is hosted in sections of the pervasive alteration which contain greater than 5% quartz veins with visible gold (VG) noted in 4 of the holes. The zones strike in a northeast/ southwest direction and dip to the north at 60°.” He determined that the Lower Zone returned higher gold values, shows continuity along strike, consistency in grade and has been traced for a strike length of 300m.

In his report, Keast states that “the majority of drilling has focussed on delineating the strike and dip extent of the Upper and Lower Zones” and that “11 holes targeted IP anomalies which failed to intersect significant gold mineralization.” In his table (Table 5), he has identified only 10 holes drilled to test the IP anomalies.

The highest composite assays were obtained from holes T-96-9/ 11/ 15, including 5.16 g/t over 5.0 metres, 4.80 gm/t over 5.00 metres, and 7.02 gm/t over 3.7 metres, respectively, all at a vertical depth greater than 75m. Visible gold (vg) was observed in the core in these three holes as well as in T-96-6 which returned 141.00 gm/t over 0.5m (vg at depth of 16.84m) in the upper zone while the lower zone averaged 2.8 gm/t over 3.00m. It was noted by the writer when reviewing the drill logs that no standards or blanks were inserted into the sample stream, however, higher grading samples, particularly those in which visible gold was noted or suspected, were re- assayed.

In his recommendations, Keast indicates that further drilling is required to evaluate the gold bearing structures along strike and down dip.

CJP Exploration Inc. (2017) (Figure 32)

In the summer of 2017, C. Jason Ploeger retrieved 5 holes totaling 1380.14m of core drilled for Abitibi Mining Corporation in 2011 but never reported. Between June 24 and September 24, 2017, Ploeger opened the pallets, sorted the holes and logged the core. Details of the holes are provided in Table 6. Drill logs, assay certificates from Laboratoire Expert Inc. of Rouyn-Noranda, and drill hole sections and plans are provided in the appendix.



Figure 32: Location plan of the 2011 drill holes on the Abitibi Mining Corp property recovered and logged by C. J. Ploeger in 2017.

Hole ID	UTM E	UTM N	Azimuth	Dip	Depth
AMT-11-01	592356E	5359511N	150	-60	350
AMT-11-02	592446E	5359545N	150	-60	350.13
AMT-11-03	592374E	5359576N	150	-60	400.11
AMT-11-04	592269E	5359263N	150	-45	175
AMT-11-05	592319E	5359275N	150	-55	104.9

Table 6: Summary of the 2011 holes retrieved and logged by C. J. Ploeger in 2017

No summary of significant assays is provided in the CJP report, however integration of the assay results with the sample intervals given in the logs provided the basis for the following table (Table 7). Composites of the higher assays appear to align with the upper and lower zones as interpreted by Keast from the 1996/ 97 drilling which are described as altered mafic volcanics in the CJP report. In hole AMT-11-01, the upper zone, as projected in the sections in the 2017 report appendix yielded 2.37 g/t Au over 2.00m from 310.00m (Note: all intervals and composites reflect down hole core lengths). Likewise, hole AMT-11-03 which returned 1.09 g/t Au over 8.00m from 360.00m appears to project down plunge of the upper zone, while the correlation of hole AMT-11-04, 1.58g/t Au over 1.80m from 23.19m, is uncertain. The sporadic isolated anomalous gold values in hole AMT-11-05 appear to crudely align with the two zones.

Hole	Sample #	From	To	width	Au ppb	Au g/t
AMT-11-01	42540	110.93	112.00	1.07	651	0.65
AMT-11-01	42575	192.68	193.50	0.82	512	0.51
AMT-11-01	42602	262.70	263.35	0.65	609	0.61
AMT-11-01	42650	308.85	310.00	1.15	610	0.61
AMT-11-01	42651	310.00	311.00	1.00	1669	1.67
AMT-11-01	42652	311.00	312.00	1.00	3066	3.07
AMT-11-02	42793	270.00	271.00	1.00	582	0.58
AMT-11-03	66799	360.00	361.10	1.10	545	0.55
AMT-11-03	66800	361.10	362.00	0.90	535	0.54
AMT-11-03	66801	362.00	363.00	1.00	77	0.08
AMT-11-03	66802	363.00	364.10	1.10	244	0.24
AMT-11-03	66803	364.10	365.10	1.00	2352	2.35
AMT-11-03	66804	365.10	366.20	1.10	1978	1.98
AMT-11-03	66805	366.20	367.00	0.80	2698	2.70
AMT-11-03	66806	367.00	368.00	1.00	574	0.57
AMT-11-04	42841	23.19	24.00	0.81	2198	2.20
AMT-11-04	42842	24.00	25.00	1.00	610	0.61
AMT-11-05	42972	42.18	43.27	1.09	4000	4.00
AMT-11-05	42978	48.00	49.00	1.00	898	0.90
AMT-11-05	42993	62.70	63.70	1.00	1234	1.23
AMT-11-05	42998	67.30	68.00	0.70	607	0.61

**Table 7: Summary of significant assays from the 2011
drilling logged and sampled by Ploeger in 2017**

7. GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

According to mapping by Jensen (1978), Berger (2002) and compilation by Ayer et. al. (2005), the map-area is underlain by Early Precambrian (Archean) volcanic rocks of the Superior Province of the Canadian Shield that extend from Chibougamau in Quebec to Timmins in Ontario (Figure 33). Stocks, sills and dikes of mafic, intermediate, and felsic intrusive rock cut the volcanic rocks. A few northeast-trending diabase dikes of Middle to Late Precambrian age intrude the volcanic rocks. Two major, roughly parallel structures, the Cadillac- Larder Lake Fault (CLLF) and the Porcupine- Destor Fault (PDF) straddle the Highway 66 and Highway 101 corridors, respectively.

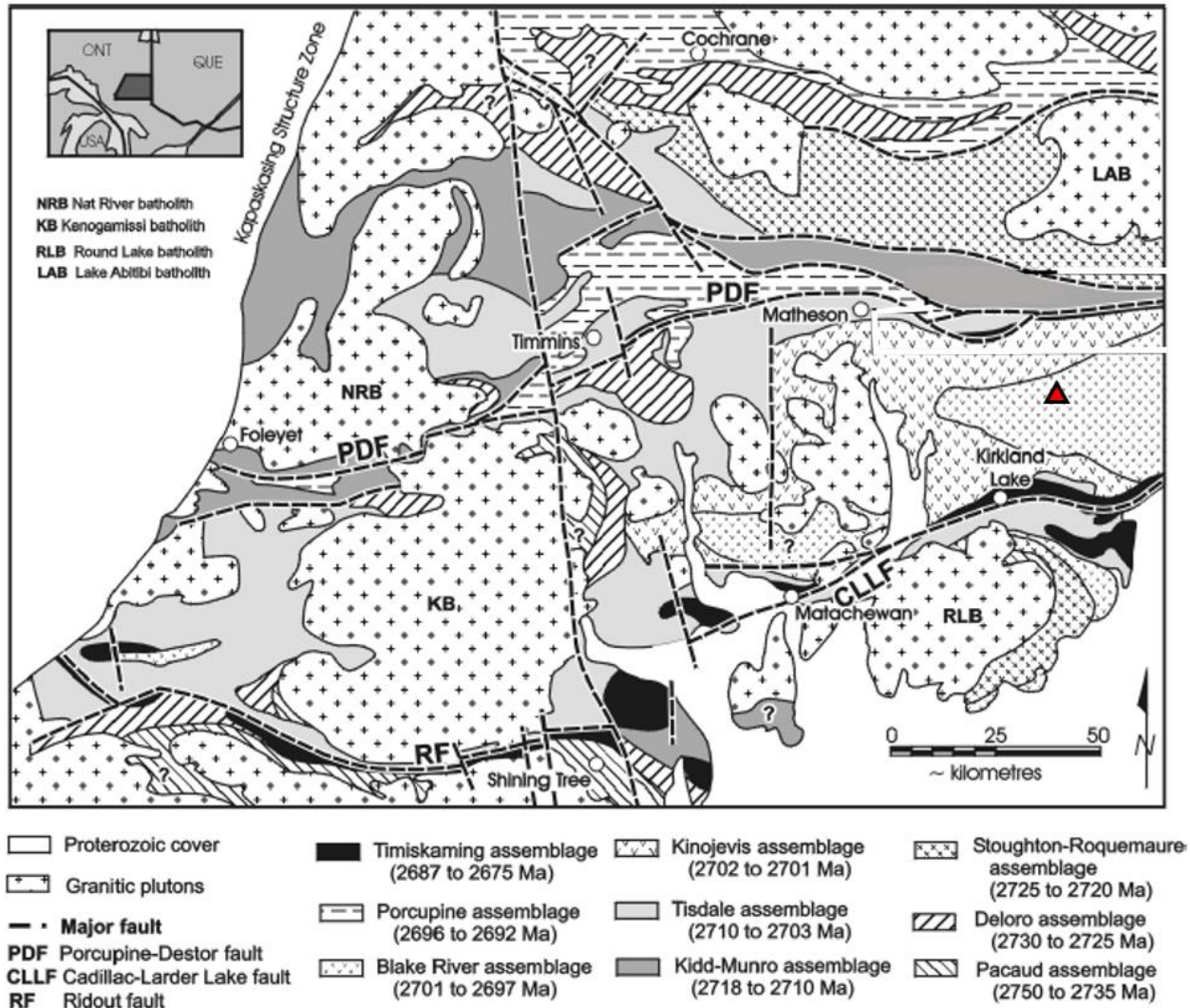


Figure 33: General geology of the Southern Abitibi greenstone belt of the Superior Province of the Canadian Shield categorized by age dated assemblages (from Berger 2002). Note: Tannahill Gold Property indicated by red triangle.

Pleistocene deposits consist of sand, gravel, clay, and till deposited on the Precambrian during the retreat of the Wisconsin glacier. Recent deposits consist of alluvium and peat.

7.2 Property Geology

Jensen (1975, 1978), who mapped the townships surrounding the Tannahill Gold property in detail, summarized the geological succession in the Table of Lithologies shown below (Table 8).

PHANEROZOIC	
CENOZOIC	
QUATERNARY	
PLEISTOCENE AND RECENT	Till, reworked till, esker sand and gravel, varved clay, dune sand, alluvium and peat
	<i>UNCONFORMITY</i>
PRECAMBRIAN	
MIDDLE TO LATE PRECAMBRIAN (PROTEROZOIC)	
MAFIC INTRUSIVE ROCKS	Diabase and quartz diabase
	<i>INTRUSIVE CONTACT</i>
EARLY PRECAMBRIAN (ARCHEAN)	
FELSIC INTRUSIVE ROCKS	
SYENITIC INTRUSIVE ROCKS	Equigranular and porphyritic syenodiorite, monzonite, syenite, feldspar porphyry, pegmatite and lamprophyre
	<i>INTRUSIVE CONTACT</i>
GRANITIC INTRUSIVE ROCKS	Quartz diorite, granodiorite, trondhemite, feldspar porphyry, and hybrid rocks
	<i>INTRUSIVE CONTACT</i>
MAFIC INTRUSIVE ROCKS	Gabbro, quartz gabbro, diorite, quartz diorite, hornblende gabbro, and anorthositic gabbro
	<i>INTRUSIVE CONTACT</i>
VOLCANIC ROCKS	
RHYOLITIC AND DACITIC VOLCANIC ROCKS	
Calc-Alkaline Suite	Massive breccia, flow-breccia, pyroclastic breccia, tuff, crystal tuff, amygdaloidal, rhyolitic and dacitic rocks feldspar, and quartz porphyry, rhyolitic and dacitic rocks
Tholeiitic Suite	Spherulitic tuff and tuff-breccia, and cherty tuff, rhyolitic and dacitic rocks
BASALTIC AND ANDESITIC VOLCANIC ROCKS	
Calc-Alkaline Suite	Massive, pillowed breccia, pyroclastic breccia, tuff and lapilli-tuff, amygdaloidal, porphyritic feldspar basaltic and andesitic rocks and greenschist and amphibolite facies, meta-basaltic and meta-andesitic rocks
Tholeiitic Suite	Black to dark green, high-iron, massive, pillowed flow-top breccia, pillow breccia, hyaloclastic, variolitic and amygdaloidal basaltic and andesitic rocks and interflow sediments. Grey to green, high-magnesium massive, pillowed, flow-top breccia, pillow breccia, hyaloclastic, porphyritic feldspar, variolitic and amygdaloidal basaltic rocks and interflow sediments

Table 8: Table of Lithological Units in the Tannahill Gold area (after Jensen, 1978).

The Tannahill Gold Property is situated on the north flank of a large east-trending synclinorium which, according to Jensen (1978) extends eastward into the Noranda area where the volcanic rocks are referred to as the Blake River Group. Sources of the volcanic rock are thought to have been domal volcanic vent areas along the axis of the synclinorium to the south in Clifford and Ben Nevis Townships where two domal rhyolite intrusions are cut by granodiorite and trondhemite. An updated geological map which included the townships mapped by Jensen was compiled by Ayer et al in 2003 (Figure 34).

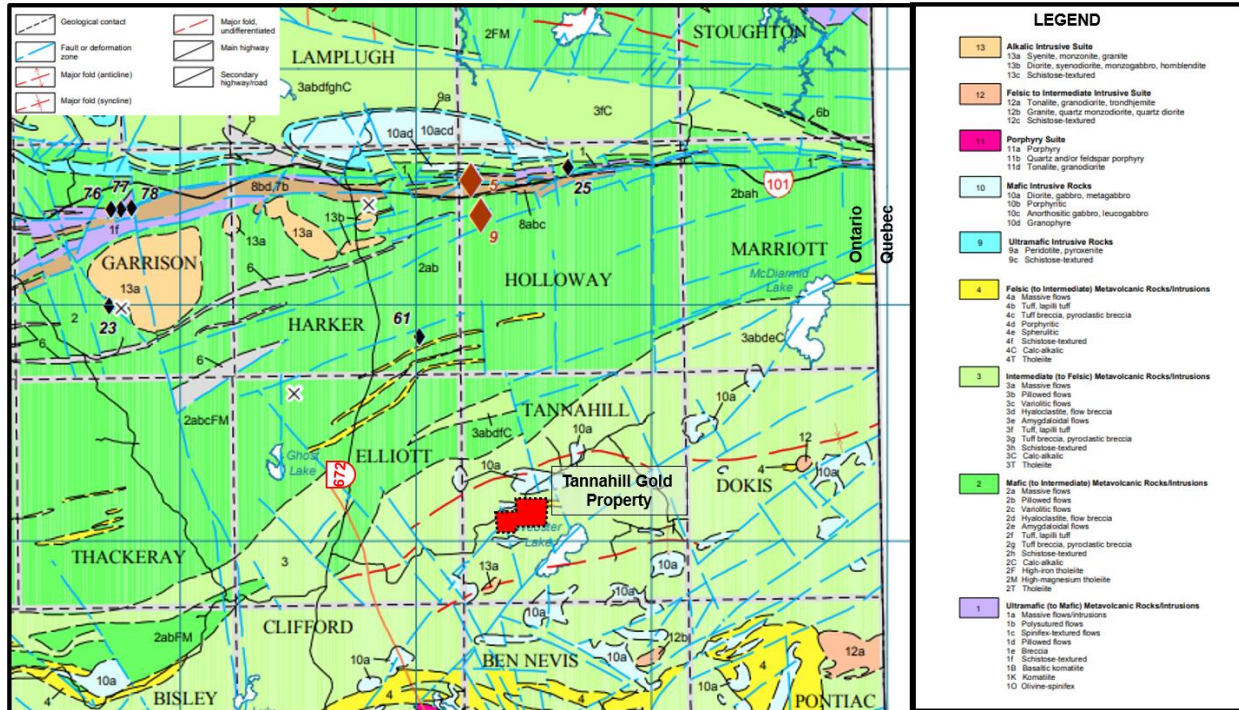


Figure 34: Geology of the Southern Abitibi greenstone belt in the vicinity of the Tannahill Gold Property (red rectangle) from 2003 compilation by Ayer et al.

Chemically, Jensen (1978) determined that the volcanic rocks can be classified into two suites, tholeiitic and calc-alkaline. According to Jensen these tholeiitic volcanic rocks occur in Thackeray Township, and in the northwestern part of Elliott Township and are older than the calc-alkaline volcanic rocks in Tannahill and Dokis Townships.

The intrusive rocks in the area range from alkaline to sub-alkaline in composition. The sub-alkaline rocks range from mafic to granitic and exhibit chemical trends similar to the calc-alkaline volcanic rocks. They are restricted to the calc-alkaline volcanic sequence and appear to comprise a single extrusive/intrusive magmatic sequence. The alkaline intrusive rocks are syenitic in composition and appear to postdate the main volcanism in the map-area (Figure 35).

The regional metamorphism is low greenschist (prehnite- pumpellyite-quartz) facies throughout the area, except for higher grade contact metamorphic aureoles surrounding the granitic and syenitic intrusions. Aureoles of albite-epidote hornfels to lower hornblende hornfels generally rim the granites, while those around some of the syenite intrusions range as high as the upper hornblende hornfels facies.

The volcanic rocks of Thackeray, Tannahill, Elliott, and Dokis Townships appear to have been deposited on the northern flanks of the domal volcanic vents situated largely to the south. They were subsequently folded to form part of the northern limb of the synclinorium.

Jensen divided faults into two major sets striking either northeast or northwest. The northeast-striking faults are located mainly in Tannahill and Dokis Townships while the northwest trending faults occur mainly in the western part of the area in Thackeray and Elliott Townships.

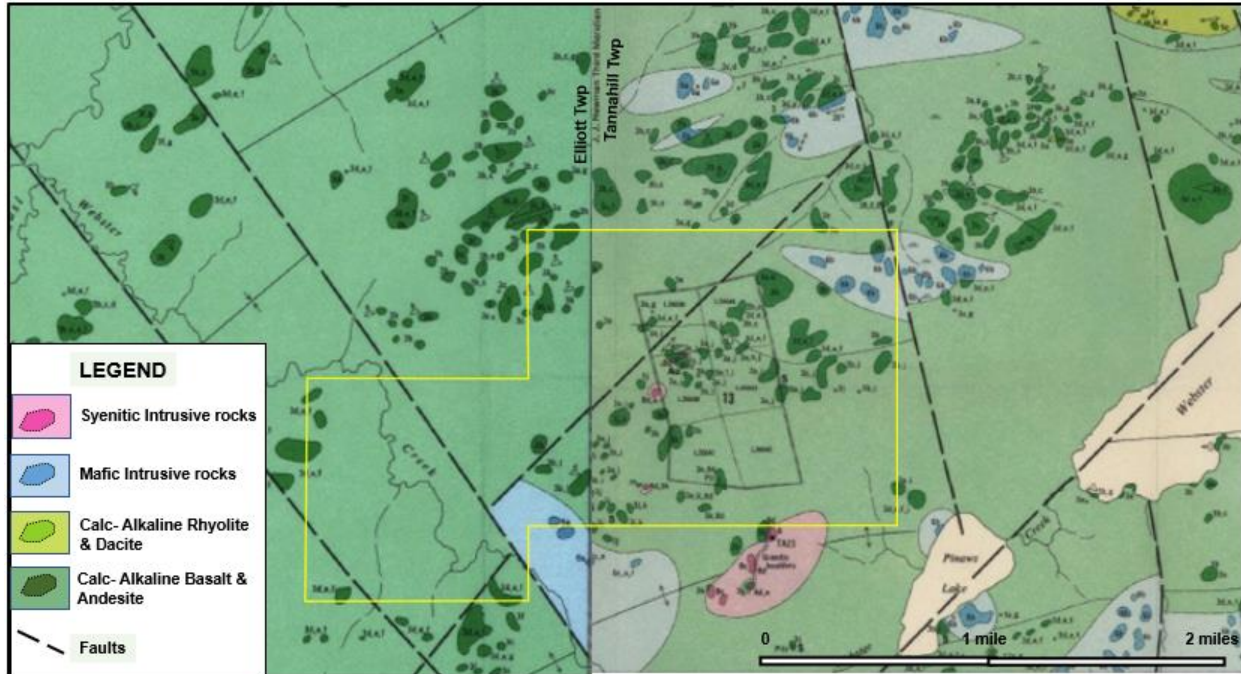


Figure 35: Geology of the Tannahill Gold Property (yellow outline) from the 1978 geological mapping by Jensen.

8. DEPOSIT TYPES AND MINERALIZATION

According to Jensen (1978) no prospecting earlier than 1917 is recorded in the map-area, but it seems likely that prospecting was carried out in Tannahill and Dokis Townships in outcrop areas adjacent to the Magusi (Isabemagussi; Abnegeey) River which served as a fur trading route during the 1800s and early 1900s (Jensen, 1978). A very spectacular high grade gold deposit was discovered approximately 41km northwest of the Tannahill property in Munro Township (Croesus) which sparked a prospecting rush to the general area in 1914. In a bout 1917, gold was discovered in nearby Thackeray Township by the Howey Brothers, D. Williams, W. Cochenour, and others and prospecting, mainly for gold, has been carried out intermittently in Tannahill and the surrounding townships since that time. Exploration emphasis shifted to include base metals when, in 1972, a base metal deposit of copper and zinc was discovered in Hebecourt Township, Quebec, precipitating a staking rush in the eastern part of Dokis Township.

The observed mineralization in the map-area occurs in areas of strongly altered volcanic rock cut by shear zones or fractures filled with quartz, epidote, and calcite which may be mineralized with chalcopyrite, pyrite, specular hematite and rarely, visible gold. Most of the more intense local alteration occurs in or near felsic intrusive rocks and adjacent structures suggesting a strong relationship between the mineralization and the felsic intrusions. In Tannahill, Thackeray and Elliott Townships, the alteration and mineralization are located near, or at, contacts with syenite, monzonite, and syenodiorite intrusives.

The Holt and Holloway mine sites which are located on opposite sides of Hwy 101 from each other approximately 16 km north of the Tannahill Gold property were the largest gold producers in the immediate area. Gold was first discovered in 1922 in northwest Holloway Township but it was not until the early 1980's that drilling by American Barrick began to develop a resource which went into production as the Holt- McDermott mine in 1986. Table 9 provides production statistics for the past producers along the Highway 101 corridor to the north of the Tannahill Gold property. Total gold production for the Kirkland Lake Resident Geologist's district to the end of 2021 amounted to 47,649,942 ounces (Chadwick et al, 2022).

Mineralization at the Holt mine is hosted in a 10- 50m wide, carbonate- sericite- chlorite +/- albite shear zone in mafic volcanic rocks. The shear zone merges with the PDFZ approximately 10 km to the east of the deposit. Gold mineralization, which is associated with the pyrite, occurs in massive to banded quartz- sericite- pyrite- albite alteration which appears to overprint the shearing. There is an earlier phase of hematite alteration which is cut by the later alteration package.

8.1 Mineralization

8.1.1 Greenstone-hosted quartz-carbonate vein deposits

Mine	Township	Tons Milled	Production (oz Au)	Grade (opt)	Years of Production
Black Fox	Hislop	8,687,766	1,040,230	0.12	1997-2001, 2009-present
Buffonta	Garrison	117,013	12,139	0.104	1981, 1991-92
Canadian Arrow	Hislop	303,449	19,140	0.063	1974-76, 1980-83
Canamax (Matheson Project)	Holloway	38,675	5,391	0.139	1988
Croesus	Munro	5,333	14,859	2.786	1915-18, 1923, 1931-36
Garrcon	Garrison	81,057	3,518	0.046	2014 (bulk sample)
Hislop Mine (Hislop East)	Hislop	2,082,219	128,635	0.062	1990-91, 1993-95, 1999-2000, 2007, 2010-14
Holloway	Holloway	6,720,648	1,027,203	0.153	1993, 1995 (preproduction), 1996-06, 2011-16
Holloway-Holt	Holloway	601,778	89,703	0.149	2007-2010
Holt	Holloway	11,640,918	1,727,575	0.148	1988-2004, 2011-2018
Holt Complex (Holt, Holloway & Taylor)	Holloway, Taylor	1,178,200	143,342	0.122	2019-2020
Newfield	Garrison	55,000	9,680	0.176	1996 (bulk sample)
Ross	Hislop	6,714,482	995,832	0.148	1936-89
Taylor	Taylor	1,072,489	175,601	0.164	2007, 2013-14 , 2015-2018
Totals (101 area)		39,299,027	5,392,848	0.137	
Total Kirkland Lake Resident Geologist's Area		193,795,060	47,649,942	0.246	

Table 9: Table of Production from past producers in the Tannahill Gold area (revised from Chadwick, 2022).

One type of gold mineralization on the Tannahill Gold Property is in many respects consistent with the greenstone-hosted quartz-carbonate vein deposit type, which is a subtype of lode gold deposits, also known as mesothermal, orogenic, lode gold, shear-zone-related quartz-carbonate or gold-only deposits (Dubé and Gosselin 2007). This style of mineralization consists of simple to complex networks of gold-bearing, laminated quartz carbonate fault-fill veins in moderately to steeply dipping, compressional brittle-ductile shear zones and faults, with locally associated extensional veins and hydrothermal breccias. Gold is mainly confined to the vein networks but may also be present in significant amounts in iron-rich sulphidized wall rock selvages or within silicified and arsenopyrite- rich replacement zones. The host rocks are dominantly mafic rocks of greenschist to locally lower amphibolite facies but may include a wide variety of rock types including mafic and ultramafic volcanic rocks, competent iron-rich differentiated tholeiitic gabbroic sills, granitoid intrusions, porphyry stocks and dykes and clastic sedimentary rocks. Mineralization is syn- to late deformation and typically post-peak greenschist- facies or syn-peak amphibolite facies metamorphism and generally formed at 5-10 km depth.

This type of deposit is distributed along major compressional to transpressional crustal-scale fault zones in deformed greenstone terranes (Dubé and Gosselin, 2007). Generally, gold mineralization is associated with second and third order compressional reverse-oblique to oblique brittle-ductile high-angle shear and high-strain zones commonly located within 5 km of the first order fault. However, brittle faults associated with Timiskaming- like regional unconformities may also be the main host to gold mineralization as present along the Kirkland Lake Main Break. Structural traps, such as fold hinges or dilational jogs along faults or shear zones, may be important in locating the orebodies.

Both G. L. Holbrooke of Erie Canadian Mines Limited (1936) and T. Keast (1999) recognised two types of gold mineralization on the Tannahill Gold property. One style of mineralization comprises local sheared carbonatized volcanics with up to 7.6 cm quartz stringers “spaced about 10 ft (3.05m) apart and carrying free gold” with “nothing” noted between the veins (Erie Canadian, 1936) and assaying up to 9.09 gm/t Au (Keast, 1999).

8.1.2 Syenite-associated disseminated gold deposits

A key characteristic of the gold mineralization observed on the Property is its close apparent relationship to late syntectonic potassic altered syenite dykes. A group of Archean gold deposits spatially associated with quartz-monzonite to syenite stocks and dikes that occur mainly along major fault zones (e.g., Duparquet, Matachewan, Harker-Holloway, Ross) was described by Robert (2001) as syenite-associated disseminated gold deposits. Gold mineralization is associated with disseminated sulphide replacement zones with variably developed stockworks of quartz-carbonate+/-K-feldspar veinlets, within zones of carbonate, albite, K-feldspar, and sericite alteration that occur within composite syenitic stocks or along their margins, along satellite dikes and sills, and along faults and lithologic contacts away from intrusions. The syenitic intrusions are broadly contemporaneous with deposition of Timiskaming sedimentary rocks which have been overprinted by subsequent regional folding and related penetrative cleavage. These gold deposits are considered distinct from quartz-carbonate vein deposits, which can also be hosted by pre- Timiskaming syenitic intrusions.

The intrusions associated with these deposits range in composition from quartz-monzonite to syenite, form small stocks, commonly elongated subparallel to the overall structural trend, and

are generally surrounded by numerous satellite dykes. In some deposits (e.g., Holt-McDermott), only dykes are exposed and no related stocks have been identified. The stocks are composite, multiphase intrusions and the presence of several textural types of dikes in some deposits ranging from equigranular to porphyritic, with K-feldspar phenocrysts in a fine-grained to aphanitic groundmass. Overprinting fault and shear zones are also common in these deposits and range from relatively ductile shear zones to narrow brittle faults.

Orebodies consist of zones of disseminated sulphides with variably developed stockworks characterized by an increase in sulphide content, gold grades, and intensity of stockwork fracturing. An abundance of microveinlet stockworking and fracturing may result in a breccia appearance. The orebodies represent replacement zones that lack through-going, tens of meters long quartz-carbonate veins typically present in greenstone hosted quartz-carbonate vein gold deposits. The morphology of the deposits ranges from tabular to pipe-like, although many have rather irregular outlines generally steeply dipping and/or steeply plunging; however shallower dipping orebodies are also known.

The total sulphide mineral content of the orebodies is typically less than 10% by volume, and commonly consists of only a few percent fine to very fine-grained of pyrite, with significant arsenopyrite in a few deposits. Stockworks consist of millimetre to centimetre thick veinlets of gray to cherty quartz containing subordinate amounts of carbonate (Fe-dolomite and calcite), albite, and pyrite. Other ore-related minerals include minor to trace amounts of chalcopyrite and hematite, telluride minerals, molybdenite, and magnetite. Accordingly, orebodies are generally enriched in Cu, As, and Te, with common, but variable, enrichments in Pb, Mo, W, Zn, and locally Sb. The gold: silver ratios of the ores generally range from about 1:1 to 5:1. Anhydrite, fluorite, tourmaline, and scheelite are also common. In nearly all examined deposits, barren, shallowly dipping, milky quartz-calcite extensional veins overprint the ore-related stockworks and disseminated mineralization.

Zones of hydrothermal alteration are spatially coincident with zones of disseminated sulphide minerals and veinlet stockworks, with the most intense alteration generally corresponding to economic gold mineralization. Carbonatization and albitization are significant alteration types at nearly all deposits; K feldspar alteration and sericitization are also present in several deposits, whereas silicification is less frequently important. Carbonatization is the most extensive type of alteration and displays a zonal distribution, from peripheral calcite to dolomite or Fe-dolomite within mineralized zones. K-feldspar alteration seems to be restricted to orebodies hosted within, or along the margins of, composite syenitic stocks. Albitization is most intense in orebodies associated with satellite dikes.

According to Holbrooke (Erie Canadian, 1936) the second style of mineralization “consists of a mineralized vertical porphyry dyke striking N 70° E. Samples from one pit on this dyke ran 39.00- 19.00 and 4.40.” It is assumed that the assays were reported at a value of \$20.00 gold, and therefore equivalent to 66.86 gm/ ton, 32.57gm/t and 7.54gm/t gold. Keast (1999) observed that the most continuous significant values (up to 3.09 g/t Au) were obtained from “fractured flows” in contact with porphyry dikes.

Drilling on the Tannahill Gold Zone identified parallel upper and lower north-dipping (@ 60°), gold-bearing structures that strike in a northeast/ southwest direction and consists “of pervasive

quartz-carbonate-albite alteration with 5-10% disseminated pyrite with variable quartz veining” in which visible gold was noted. This style of mineralization appears to be similar to that described at the Holt and Holloway mine deposits.

9. EXPLORATION

Atacama Resources International Inc. has not conducted any significant exploration work on the claims since acquiring the Tannahill Gold property. This report was commissioned to summarize and evaluate the work done on the property and recommend a focussed follow up exploration program to better define the parameters controlling the mineralization and determine the dimensions and grades of the mineralized zones in preparation for a possible resource calculation.

Preparatory work by Atacama on the Tannahill Gold property include: a visit to the property by the writer to confirm the location of significant drill hole collars; examination of the stripped areas and historical showings to confirm the work done and sample locations; utilization of Differential Global Positioning System (DGPS) coordinates for surveying all of the drill collars located in the central area of the property around the surface showing, locations for tickets from several 1999 chip/ grab samples, for old grid pickets encountered during the reconnaissance of the property, for a survey monument, for 3 historic trenches, and, for an undocumented historic drill hole in bedrock. At the time of writing, a drone survey to provide an updated base for georeferencing all of the DGPS data and integrating the historical work into a digital model was under way.

In addition to the field work, the drill core from 6 historic holes drilled into the centre of the mineralized horizon on the Tannahill Gold property was retrieved from storage, “re- packaged” where necessary, and the significant historical assay intervals re- logged/ examined and re-assayed to verify the historic values as due diligence for a possible future resource calculation.

10. DRILLING

10.1 Historical Drilling

Details of the historic drilling have been extensively covered under section 6.5 in Chapter 6 pertaining to the History of the Tannahill Gold property. The references to the drilling include:

Crossman, P. (1980)- One hole totalling 35 feet (10.67m) was drilled by Patrick Crossman in May 1980. No assays were reported.

Lovell, H. 1991)- A hole drilled by Heath and Sherwood to a depth of 315 ft (96.01m) on the Bastarache- Matthias Property was logged by Lovell in September 1991. Five samples sent to Swastika Labs for gold assay all returned nil.

Carmichael, S. J. Consultants (1995)- The report by Carmichael covers one drill hole by Bastarache (BE95-1- 152.4m) under an OPAP grant and a second by Greater Lenora Resources Corp. (BE95-2- 120.7m) who had subsequently optioned the property from Mr. Bastarache. Swastika Lab certificates from hole BE95-1 indicate that the Bastarache hole was assayed for cobalt, Copper and Zinc, returning a slightly anomalous value of 269 ppm Zn while the Lenora hole, BF95-2, was only tested for gold with a best assay of 10 ppb Au.

Carmichael, S. J. (1996)- Four holes totaling 412.50m drilled in the vicinity of the main showing for Sedex Mining Corp/ Abitibi Mining Corp by Lafreniere Drilling in February 1996 were logged by Carmichael. The best individual assay of 6.27 g/t Au over 0.6m which is included within a composite of 3.25 g/t Au over 2.8m, occurs near the start of hole T-96-1. All other significant assays are provided in Table 4.

Keast, T. (1998)- The report by Keast summarises the 6 phases of drilling carried out between February 17, 1996, and April 18, 1997, consisting of 39 holes aggregating 6171.16 metres for Sedex Mining Corp/ Abitibi Mining Corp. Details of the drilling and the best assay intervals were previously provided in Table 5.

CJP Exploration Inc. (2017)- In the summer of 2017, C. Jason Ploeger retrieved 5 holes totaling 1380.14m of core drilled for Abitibi Mining Corporation in 2011 but never reported. Between June 24 and September 24, 2017, Ploeger opened the pallets, sorted the holes and logged the core.

In hole AMT-11-01, the upper zone, as projected in the sections in the appendix yielded 2.37 g/t Au over 2.00m from 310.00m (Note: all intervals and composites reflect down hole core lengths). Likewise, hole AMT-11-03 returned 1.09 g/t Au over 8.00m from 360.00m appears to project down plunge of the upper zone, while the correlation of hole AMT-11-04, 1.58g/t Au over 1.80m from 23.19m, is uncertain.

10.2 Field Checks/ Resampling of Core

10.2.1 Field Checks

On May 15, 2023, a visit was made to the Tannahill Gold Property of Atacama Resources International Inc. located on the boundary of Tannahill and Elliott Townships accompanied by Bill Bonney of Canadian Exploration Services (CXS). The purpose of the visit was twofold, the first, as an initial site visit for the writer to familiarize himself with the property, in particular, the distribution of the drilling and the location of the stripped areas hosting the significant surface sample assays; secondly, to locate all of the diamond drill collars around the main showings, particularly those collars in the core of the zone from which “grade x horizontal width” calculations exceeded 5.0 g/t Au.

The accompanying sketch (Figure 36) displays the traverse tracks of the field visit as well as the features located including: drill hole collars; historic sample locations on the stripped areas; a permanent survey station (S-4); historic trenches; and pickets from the original grid to aid in georeferencing the historic grids.

In total, 41 GPS points were documented during the visit to the property including: 22 of the 1996- 1997 diamond drill holes, all five 2011 drill holes, one unknown hole collared in bedrock, 1 survey station, 2 sample sites from the stripped areas, 3 historic trenches, and 6 pickets from the old grid.



Figure 36: Traverse track/ location of drill holes and other features of May 15, 2023, Tannahill Gold site visit.

All of the diamond drill hole locations and casings were identified with flagging tape marked with the hole number for follow up with a differential GPS (DGPS) system to acquire a more accurate location for the holes to utilize in a possible future resource calculation. Photographs were taken of the casings, each showing the hole number and the handheld GPS instrument (Garmin GPSMAP 64x) reading (Figure 37).



Figure 37: T96- 15 (left- uncapped), T97-36 (middle- capped), AMT11-01 (right- uncapped) holes documented during the May 15, 2023, Tannahill Gold site visit.

It was noted that of the holes located during the property visit, the 1996 drill holes (T96-6 to T96- 15) were drilled with BQ strings and that their casings were not capped; the 1997 holes were drilled NQ and all were capped except T97- 23/ 25/ 27. The caps were cylindrical with a flat top and no attached rod and flag. The casings of 5 holes (AMT11-1- 5) which were drilled by Abitibi Mining Corporation in 2011 and recovered from storage and logged by CJP Exploration Inc. in 2017, were also located during the site visit. They are NQ size and not capped.

In addition to the drill casings, a small diameter, undocumented hole was located on an outcrop exposure on the upper edge of a steep drop off near a series of historic trenches. A review of the assessment files suggests that the hole may have been drilled in 1981 by D. A. MacKeigan (Hole 1). The hole was collared in bedrock and the dip in the field was estimated at -50 degrees with an azimuth of approximately 330 degrees which coincides with the drill log where there was no overburden noted, the azimuth was reported as N45W, and the dip was -52 degrees. Also, a survey monument (S-4) was located on the crest of an outcrop exposure near the collar of hole T97-35 (Figure 38).



Figure 38: Left- Old drill hole collared in bedrock near old trenches; Right- Survey Station S-04.

On May 24, 2023, a crew from CXS utilizing a DGPS unit was sent to the Atacama Gold property to accurately survey all of the diamond drill hole collars and other features flagged during the writer's visit.

Four drill collars that were not accessible during the writer's visit because of high water levels were located and surveyed by CXS personnel on July 10, 2023, when drier conditions had lowered water levels in the beaver ponds. All surveyed locations are provided in Table 10 and the location of the DGPS surveyed holes is presented in Figure 39. The surveys were conducted using a Trimble Geo 7X handheld instrument.

Site ID	UTM NAD 83	Elevation
	easting- northing	
L2E 6+25N (picket)	17 U 592336 5359230	343 m
L2E 6+50N (picket)	17 U 592321 5359253	343 m
L2E 7+25N (picket)	17 U 592284 5359315	334 m
L3E 6+00 (picket)	17 U 592437 5359271	342 m
L3E 6+25N (picket)	17 U 592423 5359291	345 m
L4E 6+50N (picket)	17 U 592505 5359365	342 m
OLD TT-1 (trench)	17 U 592401 5359263	348 m
OLD TT-2 (trench)	17 U 592420 5359269	347 m
OLD TT-3 (trench)	17 U 592392 5359275	348 m
samples 9597/9598	17 U 592387 5359221	320 m
SAMPLE 35239	17 U 592507 5359374	340 m
SURVEY STATION S-04	17 U 592253 5359283	339 m
DDH-XT? (MacKiegan?)	17 U 592430 5359241	361 m
T96-06	17 U 592387 5359231	318 m
T96-07	17 U 592313 5359245	318 m
T96-08	17 U 592385 5359288	320 m
T96-09	17 U 592396 5359329	320 m
T96-10	17 U 592296 5359213	320 m
T96-11	17 U 592327 5359344	320 m
T96-12	17 U 592351, 5359397	322 m
T96-13	17 U 592481 5359395	320 m
T96-15	17 U 592292 5359299	320 m
T97-22	17 U 592317 5359257	318 m
T96-23	17 U 592423 5359296	320 m
T97-24	17 U 592460 5359317	320 m
T97-25	17 U 592507 5359358	320 m
T97-26	17 U 592341 5359230	318 m
T97-27	17 U 592394 5359238	320 m
T97-28	17 U 592436 5359271	320 m
T97-29	17 U 592529 5359400	320 m
T97-30	17 U 592343 5359314	320 m
T97-31	17 U 592385 5359348	320 m
T97-32	17 U 592428 5359367	320 m
T97-33	17 U 592395 5359417	320 m
T97-34	17 U 592302, 5359381	322 m
T97-35	17 U 592250 5359273	318 m
T97-36	17 U 592271 5359329	320 m
T97-37	17 U 592434 5359462	319 m
T97-39	17 U 592317, 5359450	322 m
T97-40	17 U 592250, 5359556	323 m
AMT-11-01	17 U 592355 5359505	320 m
AMT-11-02	17 U 592444 5359543	320 m
AMT-11-03	17 U 592374 5359572	320 m
AMT-11-04	17 U 592265 5359261	320 m
AMT-11-05	17 U 592315 5359274	319 m

Table 10: DGPS survey coordinates of drill holes and other significant features

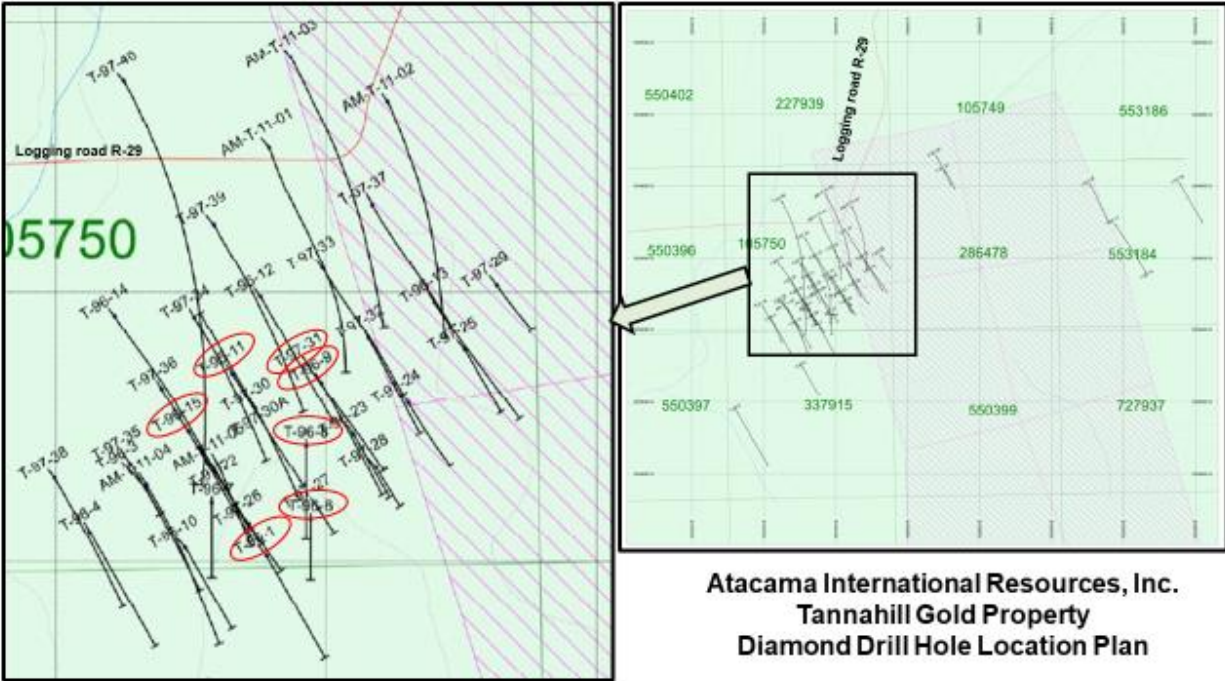


Figure 39: Right: Diamond drill hole location plan. Left: Detail of holes targeting the mineralized zone with significant intercepts to be resampled circled in red

10.2.2 Re- assembly of Core

The core from the 1996- 97 Abitibi/ Sedex Mining Corp. and 2011 Abitibi Mining Corp./ CJP Exploration (2017) historic drilling on the Tannahill Gold property is stored at the secure CXS core storage facility located approximately 3.0 km west of the town of Larder Lake and 1.5 km north of Fork Lake. At the facility, all of the core is stored in strapped bundles on pallets which are arranged in rows and catalogued by hole numbers. Holes T96-01/ 06/ 08/ 09/ 11/ 15 and T97-31 from the 1996- 97 drill programs, which were found to be mixed amongst a number of pallets, were located and flagged. CXS personnel separated the required pallets to an area where they could be opened and examined. Box 27 & 28 from hole T96-15 were retrieved from a location in the Picton area.

Under the supervision of the writer, the strapping on each bundle of core was cut hole by hole to re-assemble the desired significant interval. The age of the boxes posed numerous challenges. Many boxes were in various stages of decay/ disintegration requiring replacement which posed additional problems. About one third of the aluminum tags that identified the hole number and



Figure 40: Examples of the condition issues of the re- sampled core- Hole T96-8: A) partially disintegrated core tags; B) faded unreadable footage blocks; C) replaced tray with "X" marking the location of staples in the original tray where the tickets had entirely rotted away.

footages on the ends of the boxes were missing. Originally, the paper sample tickets (Swastika Labs) were stapled to the bottom of the tray at the start of each interval, however, only about 40% were legible, the remainder were in various states of decay or completely rotted away leaving only the staples. Core footage blocks, originally recorded in feet by the drillers and converted to metres on the obverse side by the logger, had faded to the point where 50- 60% were illegible (Figure 40).

Hole T96-8 posed an additional problem which appears to originate with the initial layout of the boxes and logging of the hole (Figure 41). The writer found problems with the location of the blocks. Boxes 10 & 12 were labelled with aluminum tags but the label for box 11 was missing. However, the driller's blocks and the sample numbers were consecutive from box 10 through the unlabeled box and into box 12. Also, box 12 was rotted so the core was transferred into a new box and the location of the staples from the sample tickets, the only vestige of the paper ticket, were noted and the location transferred to the new box.

The measured distances don't reflect the labeling on the blocks for 59.13m (194ft), 62.18m (204 ft), and 65.23m (214 ft) (dark red circles) but the sample numbers and sample meterages (1 m intervals) recorded in the log are consecutive/ continuous, ignoring the meterages on the blocks. In looking at the location of the blocks, it appears that boxes 9 and 10 may have been switched or footages mislabeled by the drillers. For the sake of continuity, sample intervals and footages were not altered by the writer; the re- sampling continued as per the tickets and meterage documented in the original log.



Figure 41: Hole T96-08: Consecutive footage blocks circled in the darker red contain the original markings from the drillers (194 ft= 59.13 m) and the metric conversion by the loggers (62.18m= 204 ft & 65.23 m= 214 ft) but the distance between the 194 ft (59.13 m) block in box 9 and the 204 ft (62.18 m) block in box 10 is only 5 feet (1.5 m). The original logging and sampling ignored this discrepancy and continued 1m sample intervals throughout.

10.2.3 Resampling of Core

Once the core had been unbundled and reorganized in the CXS secure core storage facility, new lids were affixed over the core and it was transported to the CXS building in Larder Lake where it was unpacked and reconstructed by the writer.

By working forwards and backwards from a combination of the original core logs, identifiable aluminum core box tags, legible sample tickets or staple locations where tickets had completely disintegrated, and partially readable footage or meterage blocks, the writer was able to reconstruct the core as originally logged and sampled and thereby maintain the integrity of the original sampling. All of the original markings and tickets were retained where possible, however sample numbers, core box numbers and footages were scribed on core trays and footage blocks with black marker to aid in the clarity of the reconstruction of the intervals.

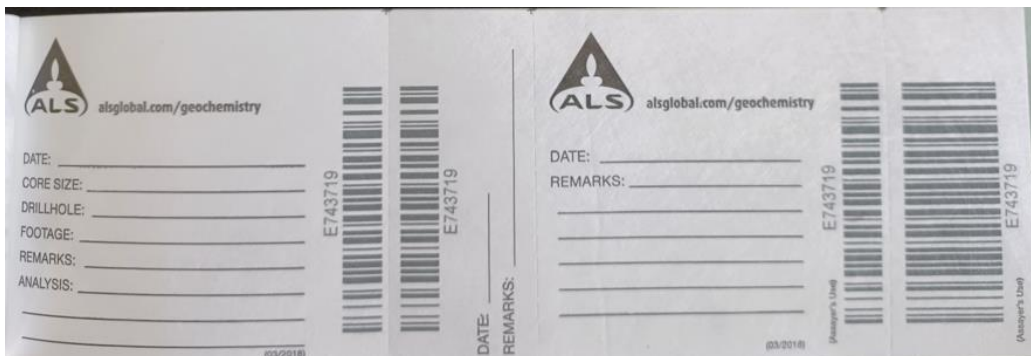


Figure 42: Example of ticket in resampling program.

Once each significant interval for a hole had been reconstructed, new sample tickets were inserted into the exact same location as the original. The new tickets, provided by ALS Minerals, are plasticized and comprised 4 bar-coded, perforated segments, the first on which was written the details of the sample including date, core size, drill hole ID, sample footage, and remarks where the old sample number was recorded (Figure 42). The next tab, which was stapled to the core tray, contains the date, original sample number, and footage of the sample. The remaining 2 tabs were included in the bag for use by ALS labs.

The significant intercepts from holes T96-08, 09, 11, 15 and T97-31 were re-logged to confirm and expand upon the observations of the original logs. Particular attention was directed to the areas where the presence of visible gold (VG) was described in the original logs as well as intervals which returned higher assays equivalent to those in which VG was noted. No VG was observed by the writer; therefore, it is hypothesized that the VG reported in the log was included in the split segment that was original sent for assay. Once the core had been sampled and relogged, it was racked inside the CXS facility for cutting in-house by an experienced CXS technician.

The core was originally split in a core splitter resulting in numerous small pieces and chips that needed to be cut individually by hand; it was emphasized to the technician that he needed to use extreme care when cutting each sample by hand. Because the writer noticed that there were several core trays that were at the point of disrepair and disintegration, the cutter was requested to replace the cut pieces and any leftover samples in new trays as they were being cut; the original trays were to be used as lids as they retained the location of original assay tickets, or their staples, and, that new aluminum tags be affixed to the trays whose tags were missing. The boxes and lids were taped closed, palletized and returned to the core storage area. The cut core samples were placed in bags with the corresponding ticket while a ticket stub was stapled to the core tray at the location of the original sample. All of the boxes containing the significant resampled intervals were bundled together on pallets. All footages described below are down hole core lengths.

A total of 72 samples, including 4 Standards (60 gm, OREAS 236) and 4 blanks (500 gm), were bagged by the core cutter and the writer and hand delivered by the writer to the ALS prep lab in Rouyn-Noranda. It was requested that *Prep-31B* be used for sample preparation and *AA-26* as the assay method with Au-*GRA22* check assays for samples returning greater than 2 g/t. It was noted by the writer when reviewing the original drill logs that no standards or blanks were inserted into the sample stream, however, higher grading samples, particularly those in which visible gold was noted or suspected, were re-assayed.

Hole T96-01

None of the boxes from the mineralized interval (3.25 gm/ t Au over 2.8m from 5.70- 8.50 m) at the start of hole T96-01 were found in the CXS core storage area, only scattered boxes from the end of the hole. The hole was originally logged by Keast (1998) as:

T96-01: 5.70- 8.50m

“STRONGLY ALTERED MAFIC VOLCANIC

Lower Zone. Light grey to buff, moderately to highly silicified and moderately carbonatized. Highly brecciated with silicification overprint. Sulphide content variable, 5-7% fine grained disseminated pyrite.

5.70 6.30 Weakly silicified, 1% pyrite.

6.30 7.30 Highly silicified, 2% qtz stringers, 5% py. Unconsolidated fault gouge at 7.10 m.

7.30 7.85 As above, 5% py. Fault at 7.74m, dip 66 deg to C. A.

7.85 8.50 Decrease in silicification, 3-5% py.”

Hole T96-06

Two intervals from hole T96-06 were resampled, 141.0 gm/t Au over 0.5m from 16.50- 17.00 m, in which visible gold was noted on the log, and, a lower interval from 29.00- 32.00 m which graded 2.76 gm/ t Au. The log for the hole indicated that the values were located within strongly altered mafic volcanics, both alteration zones forming the “Lower Zone” with excerpts as follow:

T96-06: 15.33- 20.02m

“STRONGLY ALTERED MAFIC VOLCANIC

LOWER ZONE. Light grey-green, fine grained with 5-10% 1 mm. Fractures, qtz-chlor filled. 1-3% 1 cm. Wide quartz veins. 5-7% disseminated pyrite.

16.84 1 cm. wide white-creamy quartz vein. 0.5mm. Clot of visible gold. Vein 55 deg. To C. A.”

T96-06: 24.00- 32.65 m

“STRONGLY ALTERED MAFIC VOLCANIC

LOWER ZONE. Light, green gray, silicified, brecciated 10-15% 1 mm fractures, chlorite + quartz filled. 2-3% disseminated pyrite. 1-3% white quartz veins parallel to foliation 55 deg to C. A. And 35 deg. To C. A. Hardness>5. Strong carbonate alteration. 30.00 31.03[m] 90% lost core. broken rubble.

31.03 32.65 Grey siliceous section, 5-7% pyrite 15-20% fractures.”

Portions of both zones were sampled including from 16.50- 18.00 m (samples X011956/ 957) and from 29.00- 32.00 m (samples X011958/ 959/ 960).

Hole T96-08

The writer had no problem collating the upper anomalous zone in hole T96-8, but as mentioned above, the lower interval posed an additional problem with a possible mislabelling of the original blocks. For the sake of continuity, sample intervals and footages were not altered by the writer; the re- sampling continued as per the tickets and meterage documented in the original log. Two separate intervals were resampled, the first, from 22.00- 30.30 m averaging 1.27 g/t Au over 8.3m, and a section from 56.50- 67.50 m which returned 1.77 g/t Au over 11.0 m. Descriptions of the intervals, from the “Lower Zone” and described as occurring in “strongly altered mafic volcanic” are provided by Keast (1998) from the original logs as follow:

T96-08: 22.00- 30.30 m

“STRONGLY ALTERED MAFIC VOLCANIC

LOWER ZONE. Light grey-green, fine grained, moderate to strong foliation. Strong brecciation. 5-10% 1mm. Fractures, chlorite filled. 3-5% disseminated pyrite. 1-3% quartz veins up to 1 cm. Wide, 65 deg. To C. A.”

T96-08: 54.80- 73.80 m

“STRONGLY ALTERED MAFIC VOLCANIC

Light green-grey, fine grained, moderate to strong foliation. Strong brecciation/ fractures 1mm. Chlorite filled, 55 deg. To C. A. 1-3* disseminated pyrite. 1-3% quartz veins, 60 deg. To C. A. 62.00-68.00 Section of strongest carb alteration.”

The higher grade composite samples from the two zones were resampled including from 22.00-30.30m (samples X011958 to X011965) and from 56.50- 68.50 m (samples X011966 to X011977 including a standard and blank).

Hole T96-09

Initially, the writer retrieved box 15 and 17, the latter in which no tickets or blocks were preserved/ readable; box 16 and 18 were not located. However, box 15 contained a driller’s block converted by the original logger to metric marked 87.17m. While flipping split pieces of core searching for tags and staples in box 17, the writer noted “00” written on core in green grease pencil, and, 1m up hole “99” in the same green colour which inferred that the illegible driller’s block was at 326 ft (99.36m). Also, an “*” marked in red grease pencil was noted at a location that marked the exact footage of visible gold recorded on the drill log at 97.82m, assuming the footage interpretation from the green grease pencil was correct.

After returning to the core storage area, box 18 of hole T96-09 was located. It had no readable footage blocks but retained enough integrity of sample tickets that by comparing with the drill log, the writer was able to trace the footages of the sample intervals back into the section to be resampled, including verification of the meterages written in green grease pencil at 99 & [1]00m. Box 16 was never located and therefore resampling of the entire interval was not possible.

Two intervals, one from each of the Upper and Lower Zones, were culled for resampling. The original composite assay calculated from the log for the narrower “Upper Zone” extended from 48.00- 51.00 m returning 1.88 g/t Au over 3.0 m while the “Lower Zone” in hole T96-09 yielded 3.32 gm/t Au over 8.00 m from 92.00- 100.00 m including two flakes of visible gold (at 95.73 m & 97.82 m). Both zones occurred in “strongly altered mafic volcanic” described in detail below:

T96-09: 46.50- 61.60 m

“STRONGLY ALTERED MAFIC VOLCANIC

UPPER ZONE. Light green grey moderately foliated. Strong fractured/ brecciated. Strong quartz- carbonate alteration. 10-15% 1mm chlorite filled fractures, 45 deg. To C. A. 1-3% creamy white qtz veins, 1-3% py.”

T96-09: 85.60- 110.30 m

“STRONGLY ALTERED MAFIC VOLCANIC

LOWER ZONE. Light grey-green moderately foliated, highly fractured, strong pervasive quartz- carbonate alteration. 1-3% white quartz veins, 80 deg. To C. A. Fine 1 mm. Quartz chlorite filled fractures. In strongest altered section core is grey yellow. Fractures 50 deg. To C. A., 3-5% pyrite.

95.73 1mm Flake visible gold.

97.82 1mm Flake visible gold.”

The Upper Zone from hole T96-09 was recovered and resampled in its entirety from 48.00-51.00 m (samples E743701/ 702/ 703) whereas only the last 3 samples of the strongly mineralized interval of the Lower Zone from 97.00- 100.00 m (samples E743704/ 705/ 706) was located.

Hole T96-11

For hole T96-11, boxes 22/ 23/ 24 retained their aluminum tags on the ends of the boxes, however box 21 did not. All of the tickets in boxes 23 & 24 had disintegrated with only the staples remaining to mark the sample locations. Box 23 had no blocks while box 24 had 2 blocks from which a footage of 436 ft was barely legible. With faded blocks in boxes 22 & 24 and remnants of readable tickets along with the drill log, the writer was able to reconstruct the ticket IDs and block footages for the mineralized interval (2.53 gm/ t Au over 12.00 m, from 117.00- 129.00 m) and insert the new assay tags (Figure 43). The description of the section from the original drill log by Keast (1998) for hole T97-11 was excerpted as follows:

T96-11: 113.10- 148.75

“STRONGLY ALTERED MAFIC VOLCANIC

Light grey-buff, fine grained. Moderate-strongly foliated 60 deg. To C. A. Strong pervasive quartz-carbonate sericite-chlorite alteration. Overall, 2-3% quartz veins, locally 10-15% veins up to 0.40 mm. Wide. Pyrite content 3-5%, locally 15-20%. Section strongly brecciated, 10-15% 1mm. Quartz-chlorite filled fractures 60 and 30 deg. To C. A. H. 4-5, M.S. 0.20.”



Figure 43: Reconstructed significant intersection of Hole T96-11 with new assay tickets inserted.

The central higher grade core of the strongly altered mafic volcanic zone was resampled from 117.00- 129.00 m (samples X011987 to X011998 including a standard and blank).

Hole T96-15

As mentioned above, box 27 & 28 from hole T96-15 (Figure 44), the interval containing the visible gold which returned an assay of 3.96 gm Au/ ton over 7.70 m (from 98.80- 106.50 m) were missing from the core storage yard. They were located near Picton, south of Belleville, Ontario and arrangements made to return the boxes.



Figure 44: Retrieved missing boxes and reconstructed significant intersection of Hole T96-15 with new assay tickets inserted.

For footages 98.80- 123.00 m in hole T97-15 Keast (1998) describes the interval as:

T96-15: 98.80- 123.00

“STRONGLY ALTERED MAFIC VOLCANIC

LOWER ZONE. Light buff-grey, moderately foliated 40 deg. To C. A. Fine grained, pervasive quartz carbonate alteration. Strong tectonic breccia, strong fracturing. 3-5% quartz, locally 15-20%. 3-5% disseminated pyrite, locally 10-15%. Strong 1mm fractures. H. 3.5, M.S. 0.10-0.20. 99.47 8 1mm flakes of Visible Gold.

100.70 102.50 Soft chloritic fault gouge 35 deg. To C. A.

109.60 112.40 Flow breccia, strong patchy epidote.”

Only the anomalous leading section of the “Lower Zone” of the strongly altered mafic volcanic rock described by Keast (above) was resampled in an attempt to replicate the original results. Samples of the zone from 98.00- 106.50 m (X011978 to X011986) include a standard and blank.

Hole T97-31

Following the retrieval and collation of the boxes from the anomalous intercept of hole T97-31 which averaged 1.00 gm/t Au over 11.80 m from 72.70- 84.50 m, the core was quickly relogged and resampled. According to the original logging by Keast (see below), it comprised mixed intervals of strongly and weakly altered mafic volcanics which is reflected in the assay values which ranged from a low of 0.02 to 2.43 gm/t Au.

T97-31: 72.70- 84.80 m

Mixed Strongly and Weakly Altered Mafic Volcanic

78.75- 80.60 m: “STRONGLY ALTERED MAFIC VOLCANIC

UPPER ZONE. Light buff-grey, fine grained, moderate-strong foliation 30-50 deg to C. A. Strong fractures, 1 mm chlorite filled. 10-15% disseminated pyrite Strong pervasive carbonate alteration.

74.65-75.50 Strong alteration, 10-15* quartz veins, 10-15% pyrite. Strong fracturing and brecciation of qtz veins”.

80.60- 82.60 m: “WEAKLY ALTERED MAFIC VOLCANIC

Light green-grey, weakly foliated. Patchy, local pervasive carbonate alteration. 2-3%, locally 5-7%, disseminated pyrite. Weak, 3-5% 1 mm. Chlorite fractures.”

75.50-78.75 m: “STRONGLY ALTERED MAFIC VOLCANIC

Buff -grey, 10-15% pyrite. Strong carbonate alteration, moderate foliation 40 deg to C. A.”

78.75- 80.60 m: “WEAKLY ALTERED MAFIC VOLCANIC

Light green-grey, 3-5% quartz filled fractures.”

80.60- 82.60 m: “STRONGLY ALTERED MAFIC VOLCANIC

Light grey, strong carbonate alteration and brecciation. 7-10% disseminated pyrite. 7-10% quartz veins 35-50 deg. To C. A. Strong fracturing.”

The current resampling covered the entire interval of strongly to weakly altered mafic volcanics from 72.70 to 84.50 m (E743707 to E743718) and include a standard and blank.

10.2.4 Discussion of Results

A program of resampling of significant intersections of holes drilled during the 1996- 97 drill campaigns by Sedex/ Abitibi Mining Corp. (Keast, 1998) was conducted by the writer as confirmation of the historic results in preparation for a possible resource calculation.

Holes T96-01/ 06/ 08/ 09/ 11 and 15, the better grading holes from the drill program, were retrieved from the secure CXS core storage facility west of Larder Lake. Also recovered was a wide anomalous zone of 11.8 m (core length) identified as the “Upper Zone” in the original log from hole T97-31. The intercepts all appear to be related to a shear/ fault zone with accompanying variable intensities of carbonatization, silicification, quartz/ carbonate veining, possible albitization, and higher percentages of pyrite mineralization with occasional visible gold (VG).

Once the core had been unbundled and reorganized at the core storage yard, it was transported to the CXS building in Larder Lake where it was unpacked and reconstructed by the writer. By working forwards and backwards from a combination of the original core logs, identifiable aluminum core box tags, legible sample tickets or staple locations where tickets had completely disintegrated, and partially readable footage or meterage blocks, the writer was able to reconstruct the core as originally logged and sampled and thereby maintain the integrity of the original sampling. A total of 72 samples, including 4 standards and 4 blanks were sent to ALS Global for assay.

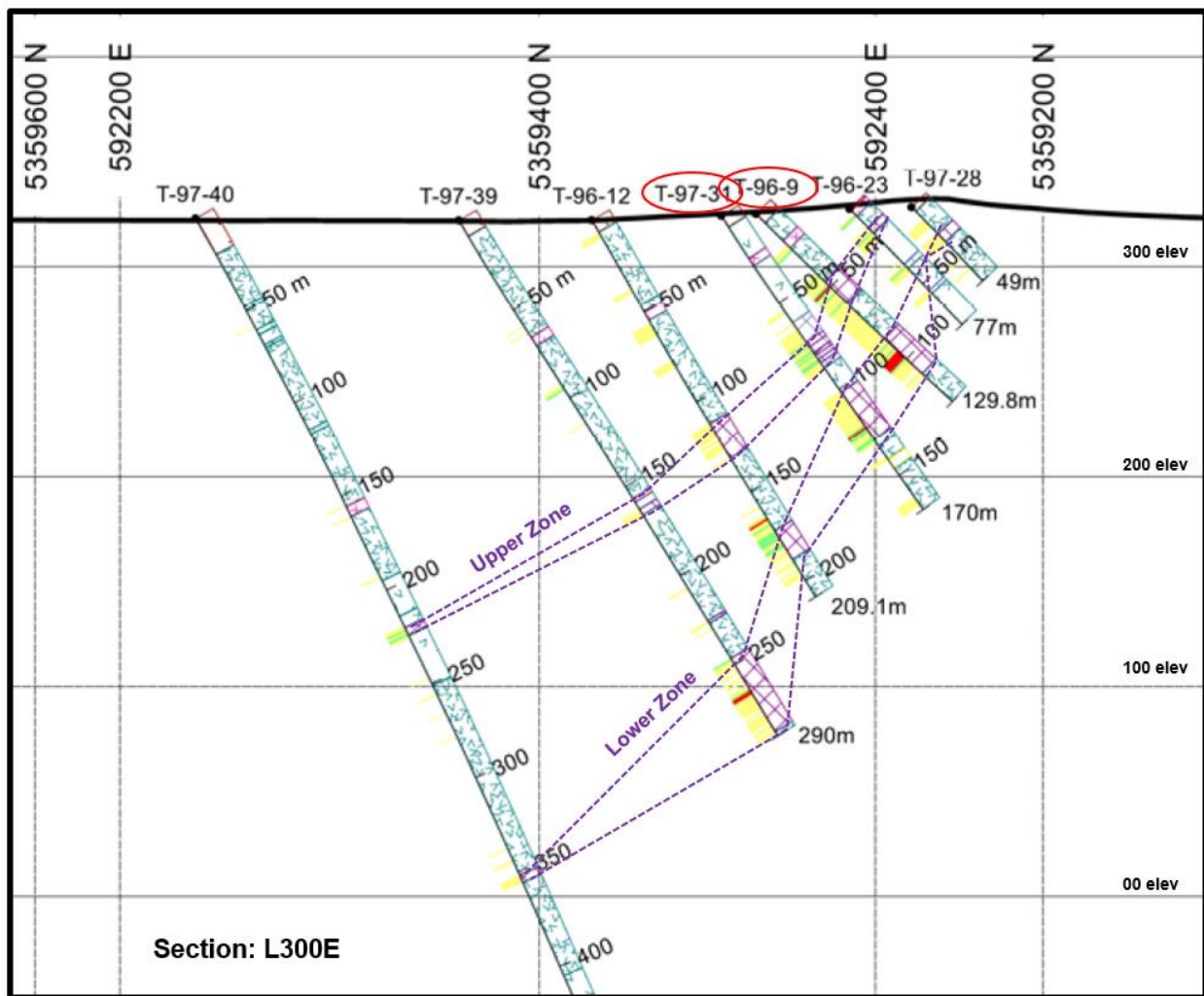


Figure 45: Cross section of drill holes on historic grid Line 300E showing the projected Upper and Lower mineralized zones. (red circle- resampled holes T96-09 & T97-31)

Following the DGPS surveys of the holes targeting the core of the mineralization, new cross sections were prepared in the plane of the original grid lines along section lines 100E, 150E, 200E, 250E, 300E, 350E, 400E and 450E. In his report, Keast (1998) divided the altered and mineralized corridors into Upper and Lower zones. Figure 45 which is plotted along section 300E and which includes resampled holes T96-09 and T97-31, illustrates this division. All of the newly plotted sections and drill hole plan are appended to this report.

In preparation for the resampling program, the writer calculated composite assay intervals from the original assay data and prepared a table (Table 11) summarizing the significant horizontal width (HW) times (x) grade (G) of the Lower and Upper Zones (LZ/ UZ), the former of which was incorporated into a longitudinal section to enable the visualization of possible mineralization

Drill Hole ID	HW LZ	HW x G LZ
T-96-1	1.98	6.43
T-96-6	2.12	5.86
T-96-8	7.78	13.77
T-96-9	5.66	18.78
T-96-11	6.00	15.18
T-96-12	4.50	5.94
T-96-14	1.09	2.38
T-96-15	3.85	15.25
T-97-22	4.24	4.84
T-97-26	0.72	2.71
T-97-30	2.00	4.00
T-97-31	1.59	3.27
T-97-32	1.88	5.74
T-97-33	1.50	5.21
T-97-34	0.95	4.74
T-97-37	0.50	0.94
T-97-39	1.59	5.09

Drill Hole ID	HW UZ	HW x G UZ
T-96-3	3.73	5.15
T-96-8	5.87	7.45
T-96-9	2.12	3.99
T-97-22	1.41	2.64
T-97-26	0.72	1.88
T-97-30	1.50	2.32
T-97-31	6.25	6.32
T-97-32	1.50	2.61
T-97-37	0.50	0.90

Table 11: Summary of the significant Horizontal Width (HW) x Grade (G) composite values for the Lower (LZ) and Upper Zones (UZ).

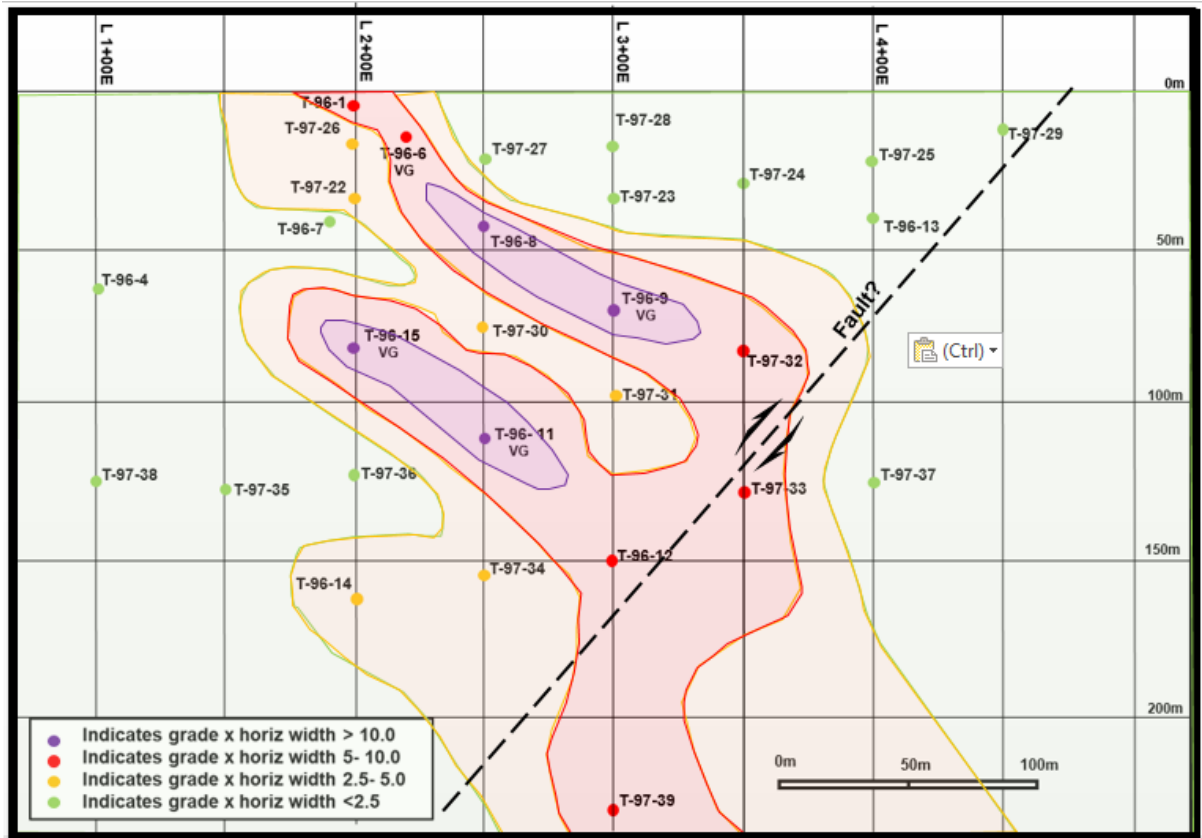


Figure 46: Longitudinal section plot of HW x G composite values of the Lower mineralized Zone.

trends (Figure 46). The longitudinal section was modified by the writer after the generalized section produced by Keast (1998). Two higher grade visible gold- bearing chutes centred on an easterly plunging alteration zone which appear to be offset by a cross fault are inferred from the section.

From Table 11, it is evident that the Lower Zone is the better developed of the two although in the logs, both zones occur within “strongly altered mafic volcanic” which are generally described as exhibiting pervasive carbonatization with quartz veining. Most of the significant intercepts are also associated with a fault, foliated or fractured zone, or tectonic breccia within or adjacent to the zone. Contouring of the composite samples infers a distinctive plunge of the mineralized Lower Zone of about 40 degrees to the east centred on two visible gold- bearing shoots.

Tables 12 to 17 summarize the significant intersections from holes T96-6, T96-8, T96-9, T96-11, T96-15, and T97-31 respectively, retrieved from storage for resampling. They include the new and original sample numbers, footages, new assays for the resampled intervals (highlighted in red) as well as the historical assay results reported in ppb and gm/t. For the purposes of this report, any samples that were rechecked on the original Swastika Labs certificates and given in gm/t were utilized while those results given in ppb were converted to gm/ t. According to Ghislain Lebel (personal communication), the former owner of Swastika Labs, the basic assays were done with an AA (atomic absorption) finish whereas assay checks, particularly of the better grading samples, were completed with a gravimetric finish. Hence there are some discrepancies between the ppb conversions and the old Au g/t values in the tables.

Empirically, the writer has observed that the resampling of holes T96- 06, 08, and 09 yielded many assays that appear to constitute roughly half of the historic value while assays from holes T96-11, 15 and T97-31 more closely approximate the original values. The reasons for these discrepancies are unclear.

Hole T96-01

None of the boxes from the mineralized interval (3.25 gm/ t Au over 2.8m from 5.70- 8.50 m) at the start of hole T96-01 were found in the CXS core storage area, only scattered boxes from the end of the hole.

Hole T96-06

Hole T96-06 contained two mineralized zones grading 141.0 gm/t Au over 0.5m from 16.50- 17.00 m, in which visible gold was noted on the log, and a lower interval from 29.00- 32.00 m

Drill Hole ID	Re-assay Sample ID	Old Sample ID	From (m)	To (m)	width (m)	New Au (g/t)	New Au check (g/t)	Old Au (ppb)	Old Au (g/t)
T96-6	X011956	23660	16.50	17.00	0.5 (vg)	37.5	NSS	141087	141.00
T96-6	X011957	23661	17.00	18.00	1.00	0.16		219	0.22
T96-6	X011953	23673	29.00	30.00	1.00	1.14		2220	2.20
T96-6	X011954	23674	30.00	31.03	1.03	1.09		1315	1.30
T96-6	X011955	23675	31.03	32.00	0.97	5.37	5.41	4971	4.90

Table 12: Summary of resampling results compared with original values from hole T96-6

which graded 2.76 gm/ t Au. Portions of both zones were sampled including from 16.50- 18.00 m (samples X011956/ 957; **NSS**- non sufficient sample) and from 29.00- 32.00 m (samples X011958/ 959/ 960).

Hole T96-08

Two separate intervals were resampled, the first, from 22.00- 30.30 m averaging 1.27 g/t Au over 8.3m, and a section from 56.50- 67.50 m which returned 1.77 g/t Au over 11.0 m. The higher grade composite samples from the two zones were resampled including from 22.00- 30.30m (samples X011958 to X011965) and from 56.50- 68.50 m (samples X011966 to X011977 including a standard and blank).

Drill Hole ID	Re-assay Sample ID	Old Sample ID	From (m)	To (m)	width (m)	New Au (g/t)	New Au check (g/t)	Old Au (ppb)	Old Au (g/t)
T96-8	X011958	8967	22.00	23.00	1.00	0.77		789	0.79
T96-8	X011959	8968	23.00	24.00	1.00	0.58		1440	1.44
T96-8	X011960	8969	24.00	25.00	1.00	0.40		266	0.27
T96-8	X011961	8970	25.00	26.00	1.00	0.33		823	0.82
T96-8	X011962	8971	26.00	27.00	1.00	0.66		1131	1.13
T96-8	X011963	8972	27.00	28.00	1.00	1.59		2297	2.30
T96-8	X011964	8973	28.00	28.75	0.75	0.70		1131	1.13
T96-8	X011965	8974	28.75	30.30	1.55	1.02		1920	1.92
T96-8	X011966	8986	56.50	57.50	1.00	0.78		1371	1.37
T96-8	X011967	8987	57.50	58.50	1.00	1.36		1543	1.54
T96-8	X011968	8988	58.50	59.50	1.00	1.37		1474	1.47
T96-8	X011969	8989	59.50	60.50	1.00	0.44		994	0.99
T96-8	X011970	8990	60.50	61.50	1.00	0.23		6446	6.44
T96-8	E743462		std 236			1.76			
T96-8	E743463		blank			0.01			
T96-8	X011971	8991	61.50	62.50	1.00	0.17		111	0.11
T96-8	X011972	8992	62.50	63.50	1.00	0.04		531	0.53
T96-8	X011973	8993	63.50	64.50	1.00	0.49		1303	1.30
T96-8	X011974	8994	64.50	65.50	1.00	1.62		1680	1.68
T96-8	X011975	8995	65.50	66.50	1.00	1.97		1992	1.99
T96-8	X011976	8996	66.50	67.50	1.00	0.07		2057	2.06
T96-8	X011977	8997	67.50	68.50	1.00	0.06		tr	tr

Table 13: Summary of resampling results compared with original values from hole T96-8

Hole T96-09

The original composite assay calculated from the log for the narrower “Upper Zone” extended from 48.00- 51.00 m returning 1.88 g/t Au over 3.0 m while the “Lower Zone” in hole T96-09 yielded 3.32 gm/t Au over 8.00 m from 92.00- 100.00 m including two flakes of visible gold (at 95.73 m & 97.82 m). The Upper Zone from hole T96-09 was recovered and resampled in its entirety from 48.00- 51.00 m (samples E743701/ 702/ 703) whereas only the last 3 samples of

the strongly mineralized interval of the Lower Zone from 97.00- 100.00 m (samples E743704/ 705/ 706) was located.

Drill Hole ID	Re-assay Sample ID	Old Sample ID	From (m)	To (m)	width (m)	New Au (g/t)	New Au check (g/t)	Old Au (ppb)	Old Au (g/t)
T96-9	E743701	16013	48.00	49.00	1.00	2.07	2.26	1568	1.56
T96-9	E743702	16014	49.00	50.00	1.00	0.09		3280	3.20
T96-9	E743703	16015	50.00	51.00	1.00	0.07		869	0.87
T96-9	not located	16040	92.00	93.00	1.00	-		1088	1.23
T96-9	not located	16041	93.00	94.00	1.00	-		283	0.28
T96-9	not located	16042	94.00	95.00	1.00	-		3082	3.12
T96-9	not located	16043	95.00	96.00	1.00 (vg)	-		3685	4.53
T96-9	not located	16044	96.00	97.00	1.00	-		5009	4.36
T96-9	E743704	16045	97.00	98.00	1.00 (vg)	4.65	4.86	7337	6.45
T96-9	E743705	16046	98.00	99.00	1.00	3.60	3.09	6693	5.01
T96-9	E743706	16047	99.00	100.00	1.00	0.87		1495	1.61

Table 14: Summary of resampling results compared with original values from hole T96-9

Hole T96-11

The mineralized interval in hole T96-11 yielded 2.51 gm/ t Au over 12.00 m, from 117.00- 129.00 m and was resampled in its entirety (samples X011987 to X011998 including a standard and blank).

Drill Hole ID	Re-assay Sample ID	Old Sample ID	From (m)	To (m)	width (m)	New Au (g/t)	New Au check (g/t)	Old Au (ppb)	Old Au (g/t)
T96-11	X011987	16153	117.00	118.00	1.00	0.39		490	0.49
T96-11	X011988	16154	118.00	119.00	1.00 (vg)	3.05	3.35	6951	5.18
T96-11	X011989	16155	119.00	120.00	1.00	3.88	3.51	7394	6.77
T96-11	E743464		std 236			1.79			
T96-11	E743465		blank			<0.01			
T96-11	X011990	16156	120.00	121.00	1.00	1.84		1510	1.85
T96-11	X011991	16157	121.00	122.00	1.00	2.89	3.22	3079	3.46
T96-11	X011992	16158	122.00	123.00	1.00	6.86	6.99	5172	4.97
T96-11	X011993	16159	123.00	124.00	1.00	1.03		1116	1.20
T96-11	X011994	16160	124.00	125.00	1.00	0.72		1134	1.82
T96-11	X011995	16161	125.00	126.00	1.00	0.33		455	0.46
T96-11	X011996	16162	126.00	127.00	1.00	0.55		456	0.46
T96-11	X011997	16163	127.00	128.00	1.00	1.15		1782	1.78
T96-11	X011998	16164	128.00	129.00	1.00	0.54		1704	1.70

Table 15: Summary of resampling results compared with original values from hole T96-11

Hole T96-15

The anomalous leading section of the “Lower Zone” containing the visible gold which returned an assay of 3.96 gm Au/ ton over 7.70 m (from 98.80- 106.50 m) was resampled in an attempt to replicate the original results. Samples of the zone, X011978 to X011986, include a standard and blank.

Drill Hole ID	Re-assay Sample ID	Old Sample ID	From (m)	To (m)	width (m)	New Au (g/t)	New Au check (g/t)	Old Au (ppb)	Old Au (g/t)
T96-15	X011978	16460	98.00	98.80	0.80	0.08		23	0.02
T96-15	X011979	16461	98.80	99.50	0.70 (vg)	1.75		10689	11.86
T96-15	X011980	16462	99.50	100.50	1.00	2.22	3.44	834	0.83
T96-15	X011981	16463	100.50	101.50	1.00	5.90	6.02	8076	5.14
T96-15	X011982	16464	101.50	102.50	1.00	8.19	8.11	9583	7.61
T96-15	E743466		std 236			1.80			
T96-15	E743467		blank			0.01			
T96-15	X011983	16465	102.50	103.50	1.00	1.98		1637	2.23
T96-15	X011984	16466	103.50	104.50	1.00	1.48		1305	1.75
T96-15	X011985	16467	104.50	105.50	1.00	4.64	4.81	3412	3.70
T96-15	X011986	16468	105.50	106.50	1.00	1.96		952	0.95

Table 16: Summary of resampling results compared with original values from hole T96-15

Hole T97-31

The current resampling covered the entire interval of strongly to weakly altered mafic volcanics which averaged 1.01 gm/t Au over 11.80 m from 72.70- 84.50 m, with samples E743707 to E743718 and include a standard and blank.

Drill Hole ID	Re-assay Sample ID	Old Sample ID	From (m)	To (m)	width (m)	New Au (g/t)	New Au check (g/t)	Old Au (ppb)	Old Au (g/t)
T97-31	E743707	2864	72.70	73.50	0.80	1.24		2057	2.06
T97-31	E743708	2865	73.50	74.50	1.00	0.18		168	0.17
T97-31	E743709	2866	74.50	75.50	1.00	2.93	3.12	2434	2.43
T97-31	E743468		std 236			1.79			
T97-31	E743469		blank			0.01			
T97-31	E743710	2867	75.50	76.50	1.00	<0.01		15	0.02
T97-31	E743711	2868	76.50	77.50	1.00	<0.01		146	0.15
T97-31	E743712	2869	77.50	78.75	1.25	2.55	3.55	1234	1.23
T97-31	E743713	2870	78.75	79.50	0.75	0.25		161	0.16
T97-31	E743714	2871	79.50	80.50	1.00	1.63		1509	1.51
T97-31	E743715	2872	80.50	81.50	1.00	0.23		350	0.35
T97-31	E743716	2873	81.50	82.50	1.00	0.07		115	0.12
T97-31	E743717	2874	82.50	83.50	1.00	2.15	2.58	2091	2.33
T97-31	E743718	2875	83.50	84.50	1.00	1.12		1545	1.55

Table 17: Summary of resampling results compared with original values from hole T97-31

11. SAMPLE PREPARATION, ANALYSES AND SECURITY

Core assay samples were not prepared for analysis in any way on site and no sample preparation was conducted by an employee, officer, director or associate of Atacama Resources International Inc., the writer or Canadian Exploration Services. All 2023 analytical work on the core samples was conducted at ALS Global with sample preparation completed in Rouyn- Noranda and analyses completed in North Vancouver, B.C. The quality system used by ALS Geochemistry complies with international standards and includes inter-laboratory test programs and regularly scheduled internal audits that meet all requirements of ISO/IEC 17025:2017 and ISO 9001:2015. (2023, ALS)

11.1 Drill Core Analyses

As described above, the core was retrieved from the secure core storage facility of Canadian Exploration Services near Larder Lake by CXS personnel under the direct supervision of the writer. The boxes were stabilized in the field and transported to the secure logging area in the garage at the CXS building in Larder Lake. The writer reconstructed the zones to be sampled from each hole and personally resampled all of the intervals according to the descriptions in sections 10.2.2 (Re- Assembly of Core) and 10.2.3 (Resampling of Core). Once the core had been sampled and relogged, it was racked inside the CXS facility for cutting in- house by an experienced CXS technician. Once cut, samples were bagged and securely closed by the core cutter and the writer and hand delivered to the ALS prep lab in Rouyn- Noranda by the writer. All of the boxes containing the significant resampled intervals were bundled together on pallets and returned to the core storage facility.

ALS was asked that *Prep-31B* be used for sample preparation and *AA-26* as the assay method; re- assay by the Au- GRA22 method was requested for samples returning greater than 2 ppm (2 g/t). According to the ALS preparation schedule, each core sample is crushed to 70% less than 2mm or better using a jaw and/ or roller crusher. The crushed sample was then divided using a riffle splitter producing a 1 kg split which was pulverized to 85% less than 75 microns or better using a ring and puck grinding mill. The pulverized splits of the samples were transported by ALS- Chemex to their facility in North Vancouver for final analyses.

The AA-26 assay process involves homogenised and pulverised samples that are mixed with flux composed of PbO and SiO₂ with variable amounts of borax, soda ash and other reagents. The flux and sample are mixed, then heated at high temperature (>1,000°C) to decompose rock lattices and allow gold within the sample to be collected into a lead button. The button is placed in a porous cupel and heated again in an oxidising environment to convert lead to lead oxide that is absorbed into the cupel, leaving the precious metals behind as a doré bead or prill. The gold content of the prill is then determined either via aqua regia digestion and atomic absorption finish. The detection range for the AA-26 method is 0.01 to 100 ppm.

Re- assay of samples exceeding 2 gm/t gold was done using the Au- GRA22 method (0.05- 10,000 ppm) which is essentially the same process as the above technique with a gravimetric finish in which the gold bead is weighed, and this weight is then used to determine the original grade of the sample.

11.2 QA/ QC Program

Reference material was intermittently inserted by the writer into the sample stream of four of the drill holes of the core resampling program. Of the total of 72 samples sent for assay, 4 were standards and 4, blanks. One standard (OREAS 236) and one blank were inserted into the sample intervals of holes T96-8, 8, 11 and T97-31.

Certified reference material OREAS 236 (certified value 1.85 ppm), which was the standard used in the resampling program, was prepared from a blend of gold ore and barren greenstone. The ore was sourced from the Frogs Leg Gold Mine located 19km west of Kalgoorlie in Western Australia and the Cambrian greenstone from a quarry 145km north of Melbourne, Australia (source OREAS website). It is packaged in 60 g aliquots with a certified value of 1.85 ppm Au and 1 standard deviation (SD) of 0.059 ppm (2SD Low of 1.73). The blanks, also sourced from OREAS, comprise 500gm packages of coarse (1/4 inch) crushed silica.

Table 18 summarizes the results of the ALS assays of the 4 standards and blanks inserted into the sample streams while Table 19 provides a statistical summary of the results. Although a small sample population, all but one of the OREAS 236 standard results barely fell within the guideline of 1 standard deviation of 0.059 ppm, and all of assays for the standard returned by ALS fell below the certified value of 1.85 ppm suggesting that there may be systematic undervaluation of the assay results.

Hole ID	Sample Number	std 236 (gm/t)	Sample Number	blank (ppm)
OREAS 236		1.85	Blank	<0.01
T-96-8	E743462	1.76	E743463	0.01
T-96-11	E743464	1.79	E743465	<0.01
T-96-15	E743466	1.80	E743467	0.01
T97-31	E743468	1.79	E743469	0.01

Table 18: Summary of Standards & blanks

Material	STD Value	Number of samples	Average	Median	Standard Deviation
OREAS 236	1.85 gm/t	4	1.798	1.790	0.0293
Blank	<0.01	4	0.01	0.01	0.00

Table 19: Statistical summary of standards & blanks.

ALS Canada Ltd. also submitted its internal QC certificate (RY23163329) with the assay certificate. It included checking internal standards CT-22, C917-1 and OxE182 as well as 2 blanks. In addition, ALS ran 6 internal duplicate samples and tested 3 Tannahill Gold core samples as duplicates.

11.2.1 Analysis of Resampling Program

Instead of inserting duplicate assays, samples exceeding 2 gm/t gold were re- assayed using the Au- GRA22 method in which a split from the original reject is pulverized and processed to produce a doré bead. This bead is weighed and the weight used to determine the original grade of the sample to tolerance limits of 0.05- 10,000 ppm.

The results of the 15 samples exceeding 2 gm/t gold which were re- assayed are displayed in Table 20. The Table also compares the averages of the historic results (original ppm and check gm/t grades) with the average grades of the current resampling (with rechecks) program. The comparison of the average grades indicates that approximately half of the current samples returned higher values than the historic ones.

Drill Hole ID	Re-assay Sample ID	Old Sample ID	From (m)	To (m)	width (m)	New Au (g/t)	New Au check (g/t)	Old Au (ppb)	Old Au (g/t)	Avg New Au (g/t)	Avg Old Au (g/t)	New - Old
T96-6	X011955	23675	31.03	32.00	0.97	5.37	5.41	4971	4.90	5.39	4.94	0.45
T96-9	E743701	16013	48.00	49.00	1.00	2.07	2.26	1568	1.56	2.17	1.56	0.60
T96-9	E743704	16045	97.00	98.00	1.00 (vg)	4.65	4.86	7337	6.45	4.76	6.89	-2.14
T96-9	E743705	16046	98.00	99.00	1.00	3.60	3.09	6693	5.01	3.35	5.85	-2.51
T96-11	X011988	16154	118.00	119.00	1.00 (vg)	3.05	3.35	6951	5.18	3.20	6.07	-2.87
T96-11	X011989	16155	119.00	120.00	1.00	3.88	3.51	7394	6.77	3.70	7.08	-3.39
T96-11	X011991	16157	121.00	122.00	1.00	2.89	3.22	3079	3.46	3.06	3.27	-0.21
T96-11	X011992	16158	122.00	123.00	1.00	6.86	6.99	5172	4.97	6.93	5.07	1.85
T96-15	X011980	16462	99.50	100.50	1.00	2.22	3.44	834	0.83	2.83	0.83	2.00
T96-15	X011981	16463	100.50	101.50	1.00	5.90	6.02	8076	5.14	5.96	6.61	-0.65
T96-15	X011982	16464	101.50	102.50	1.00	8.19	8.11	9583	7.61	8.15	8.60	-0.45
T96-15	X011985	16467	104.50	105.50	1.00	4.64	4.81	3412	3.70	4.73	3.56	1.17
T97-31	E743709	2866	74.50	75.50	1.00	2.93	3.12	2434	2.43	3.03	2.43	0.59
T97-31	E743712	2869	77.50	78.75	1.25	2.55	3.55	1234	1.23	3.05	1.23	1.82
T97-31	E743717	2874	82.50	83.50	1.00	2.15	2.58	2091	2.33	2.37	2.21	0.15

Table 20: Comparison of original assays & re- assay values vs check assays with gravimetric finish.

Drill Hole ID	From (m)	To (m)	width (m)	New Au (g/t)	Old Au (g/t)	New vs Old (g/t)	New vs Old (%)
T96-6	16.50	17.00	0.50	37.50	141.00	-103.50	-73.40%
T96-6	29.00	32.00	3.00	2.49	2.80	-0.31	-11.05%
T96-8	22.00	30.30	8.30	0.78	1.27	-0.49	-38.94%
T96-8	56.50	67.50	11.00	0.78	1.77	-0.99	-56.14%
T96-9	48.00	51.00	3.00	0.74	1.88	-1.14	-60.46%
T96-9	97.00	100.00	3.00	3.04	4.36	-1.32	-30.28%
T96-11	118.00	123.00	5.00	3.78	4.45	-0.67	-15.01%
T96-11	118.00	129.00	11.00	1.94	2.51	-0.57	-22.88%
T96-15	98.80	102.50	3.70	4.74	7.02	-2.28	-32.49%
T96-15	98.80	106.50	7.70	3.59	3.96	-0.37	-9.29%
T97-31	72.70	84.50	11.80	1.07	1.01	0.06	6.37%

Table 21: Comparison of new re- assay composite values vs original composites

Table 21 compares the down hole composite averages of the new gold assay values compared with the historical composites for the same interval. It is obvious from the table that most of the historic composite intervals are significantly higher than the newly calculated composites by an average of 31%.

Similarly, Table 22 compares the average assays of the intervals in which visible gold (vg) was logged in the original core. Of the 5 samples described as containing visible gold, the sample

from hole T96-6 (X011956) did not contain enough material to be check sampled, the core box containing historical gold bearing sample 16043 could not be located, and samples E743704, X011988 and X011979 all yielded lower values than the original averages.

Drill Hole ID	Re-assay Sample ID	Old Sample ID	From (m)	To (m)	width (m)	New Au (g/t)	New Au check (g/t)	Old Au (ppb)	Old Au (g/t)	Avg New Au (g/t)	Avg Old Au (g/t)	New - Old
T96-6	X011956	23660	16.50	17.00	0.5 (vg)	37.50	NSS	141087	141.00		141.04	
T96-9	not located	16043	95.00	96.00	1.00 (vg)	-		3685	4.53		4.11	
T96-9	E743704	16045	97.00	98.00	1.00 (vg)	4.65	4.86	7337	6.45	4.76	6.89	-2.14
T96-11	X011988	16154	118.00	119.00	1.00 (vg)	3.05	3.35	6951	5.18	3.20	6.07	-2.87
T96-15	X011979	16461	98.80	99.50	0.70 (vg)	1.75		10689	11.86	0.88	11.27	-10.40

Table 22: Comparison of original assays & re- assay values vs check assays for samples with visible gold (v g)

11.2.2 Discussion

The results of the QAQC reference material inserted by the writer appear to be precise and reasonably accurate, however the consistently lower values of standard ORES 236 returned from ALS infer that there may be a systematic undervaluation of the current assay results.

When comparing the calculated down hole composite assays for the re- assayed samples and the historical composites for the same interval, it was found that most of the historic composite intervals were significantly higher than the newly calculated composites by an average of 31%. This may, in part, due to a biased sampling in which any interval in which visible gold was logged was included in the bagged sample (see explanation below). Other possible explanations are variabilities in the sampling methods between the 1996- 97 sampling at Swastika Labs and that of the 2023 ALS procedures.

The writer closely examined every core interval which returned historical assays in excess of 5.0 gm/t Au for possible specks of visible gold. Despite the writer's extensive underground experience in the 2 biggest gold producers (Kerr Addison & Lake Shore mines) and surface gold exploration in the Kirkland Lake area, he did not observe any visible gold.

Three samples logged as containing visible gold returned significantly lower gold assays than the original sample averages. The variability displayed by the results of the average grades of the current assay/ re- check results versus the historical assays and re-checks of the visible gold- bearing core samples suggests that the visible gold noted in the core was selectively inserted into the sample bags for assay after being split. This assumption is reinforced by the fact that the writer did not detect any visible gold when examining the core at the footages indicated on the logs.

12. DATA VERIFICATION

12.1 Data Verification of Historical Values

For all of the historical work conducted on the Tannahill Gold property for which assay results were provided, the writer checked whether or not assay laboratory certificates were provided in the report and verified that the results quoted in reports or on logs matched those quoted on the certificates. For the 1996/ 97 drill campaigns by Sedex/ Abitibi Mining Corp in particular, the

analytical results for all assays greater than 1,000 ppb (1.0 gm/t) Au reported on the drill logs were compared against the signed digital laboratory certificates of Swastika Laboratories and Inchcape Testing Services (Bondar Clegg).

12.2 Data Verification of Current Program

Analytical results for all assays reported in the resampling program were compared against the signed digital laboratory certificates. The assay results matched the values in the report and tables of results. In addition, the received sample weights compared well with the quarter cut samples of the original split BQ and NQ core. The highest sample weight was obtained from sample E743712 from hole T97-31 which was drilled NQ size. The least amount of sample material was acquired from sample X011954, a 1.03 m interval in hole T96-6 from which 90% of the interval was lost/ ground.

13. MINERAL PROCESSING AND METALLURGICAL TESTING

There has been no mineral processing or metallurgical testing conducted on any samples from the property.

14. MINERAL RESOURCE ESTIMATES

There have been no mineral resource estimates conducted on any of the mineralized zones from the property.

15. ADJACENT PROPERTIES

The 6 claims that form the core of the Tannahill Gold property of Atacama Resources International on which the original main showings were discovered were originally patented; subsequent staking surrounded this group until the mining rights of the patents became available and were staked. Currently, the property comprises 29 single cell claim units.

There are no AMIS (abandoned Mines Information System) or MDI (Mineral Deposits Inventory) sites in the immediate area surrounding the Tannahill Gold claims identified on the Geology Ontario website. However, unpatented mining claims are staked by E Marion to the west, Kirkland Lake Discoveries to the south, and Jonathan Paul Camilleri to the east as identified from the MLAS (Mining Lands Administration System) website at the time of writing.

16. OTHER RELEVANT DATA AND INFORMATION

There is no additional relevant data or information available about the Tannahill Gold property documented in this report.

17. INTERPRETATION AND CONCLUSIONS

Atacama Minerals International Inc. holds under option, 29 single cell claims comprising approximately 625.5 hectares in Tannahill Township known as the Tannahill Gold property.

Considerable historical work including trenching/ pitting, prospecting, geological and geophysical surveys, and diamond drilling have been conducted on the property from the initial discovery of gold in 1925 until 2022.

The Tannahill Gold Property is situated on the north flank of a large east-trending synclinorium which, according to Jensen (1978) extends eastward into the Noranda area where the volcanic rocks can be classified into two suites, tholeiitic and calc-alkaline forming part of the Blake River Group. Intrusive rocks in the area range from alkaline to sub-alkaline in composition. These sub-alkaline rocks vary in composition from mafic to granitic and exhibit chemical trends similar to the calc-alkaline volcanic rocks. They are restricted to the calc-alkaline volcanic sequence and appear to comprise a single extrusive/ intrusive magmatic sequence. The alkaline intrusive rocks are syenitic in composition and postdate the main volcanism in the map-area.

The observed mineralization in the map-area occurs in areas of strongly altered volcanic rock cut by shear zones or fractures filled with quartz, epidote, and calcite which may be mineralized with chalcopyrite, pyrite, specular hematite and rarely, visible gold. Most of the more intense local alteration occurs in or near felsic or syenitic intrusive rocks and adjacent structures.

Descriptions from the historical trenching/ stripping suggest a general trend of the mineralized zones and associated structures at approximately 070 degrees, which regionally, is a significant trend for several of the historical gold producers in the major gold camps in the region. The “pervasive quartz- carbonate- albite alteration with 5-10% disseminated pyrite with variable quartz veining” described by Keast for the Lower and Upper mineralized zones and the presence of syenitic intrusives is also similar to that of many of the local past and present producers.

In 1996- 97, a series of 6 drill programs totalling 40 holes aggregating 6171.16 metres were conducted on the property for Abitibi/ Sedex Mining. The programs targeted the depth and strike extensions under the main gold showings and were designed to follow up on several IP anomalies. Drilling revealed two mineralized horizons designated as the Lower and Upper Zones by Keast (1998) who authored the drilling summary report. Although the locations for the holes were tied into the historical cut grid and appear to have been surveyed with control provided by at least one permanent survey station (S-04), many of the holes could not be located when georeferenced into the UTM coordinate system.

In preparation for planning an exploration program on the property and conducting a due diligence of the drilling, Atacama contracted the writer and Canadian Exploration Services to accurately locate the drill hole collars in the vicinity of the main gold showing and to recover the core of several of the most significant historical intersections for re- assay to confirm the original values. Holes T96-01/ 06/ 08/ 09/ 11 and 15, the better grading holes from the drill program, were retrieved from the secure CXS core storage facility west of Larder Lake. Also recovered was a wide anomalous zone of 11.8 m (core length) identified as the “Upper Zone” in the original log from hole T97-31. The intercept from hole T96-1 and a portion of hole T96-8 could not be found in the core storage compound and were therefore not resampled.

Once the core had been unbundled and reorganized at the core storage yard, it was transported to the CXS building in Larder Lake where it was unpacked and reconstructed by the writer. Once cut, samples were bagged and hand delivered to the ALS prep lab in Rouyn- Noranda by the writer. In total, 72 samples were sent for assay including 64 samples of previously split core, 4 standards and 4, blanks. One standard (OREAS 236) and one blank were inserted into the sample intervals of holes T96-8, 8, 11 and T97-31. At ALS, *Prep-31B* was used for sample

preparation and AA-26 as the assay method; re- assay by the Au- GRA22 method was requested for samples returning greater than 2 ppm (2 g/t). All of assays for the standard returned by ALS fell below the certified value of 1.85 ppm suggesting that there may be systematic undervaluation of the assay results.

Following a review of the historic drill logs, the writer extracted the significant intercepts from the Lower and Upper Zones and recalculated the composite horizontal widths times the grade of the zones to produce a contoured longitudinal section for the Lower Zone which appears to be the more extensive of the two. Two higher grade gold- bearing chutes centred on an easterly plunging alteration zone are inferred from the section.

Both the Lower and Upper Zones occur within “strongly altered mafic volcanic” which are generally described as exhibiting pervasive carbonatization with quartz veining. Most of the significant intercepts are also associated with a fault, foliated or fractured zone, or tectonic breccia within or adjacent to the zone.

Once the assays were returned from ALS, the significant intersections from holes T96-6, T96-8, T96-9, T96-11, T96-15, and T97-31 were summarized in a series of tables which included the new and original sample numbers, footages, new assays for the resampled intervals as well as the historical assay results reported in ppb and gm/t. Empirically, the writer observed that the resampling of holes T96- 06, 08, and 09 yielded many assays that appear to constitute roughly half of the historic value while assays from holes T96-11, 15 and T97-31 more closely approximate the original values. The reasons for these discrepancies are unclear.

Of the 64 core samples sent for re- assay, 15 samples exceeded 2 gm/t gold and were re-checked gravimetrically. A comparison of the average grades of the current samples versus the historic ones indicates that approximately half of the current samples returned higher values than the historic ones. When comparing the calculated down hole composite assays for the re-assayed samples and the historical composites for the same interval, it was found that most of the historic composite intervals were significantly higher than the newly calculated composites by an average of 31%. This may, in part, due to a biased sampling in which any interval in which visible gold was logged was included in the bagged sample or there may have been variabilities in the assaying methods between the 1996- 97 sampling at Swastika Labs and that of the 2023 ALS procedures.

In the original logs, 5 samples were described as containing visible gold, however, the sample from hole T96-6 (X011956) did not contain enough material to be check sampled, the core box containing historical gold bearing sample 16043 could not be located, and samples E743704, X011988 and X011979 all yielded lower values then the original averages. The variability displayed by the results of the average grades of the current assay/ re- check results versus the historical assays and re-checks of the visible gold- bearing core samples suggests that the visible gold noted in the core was selectively inserted into the sample bags for assay after being split.

18. RECOMMENDATIONS

The orientation of the alteration and structures, the geochemistry of the alteration package, and the presence of syenitic intrusives on the Tannahill Gold property are characteristics of a complimentary situation for hosting potentially economical gold mineralization consistent with

those deposits associated with other major gold camps in the Abitibi (Timmins, Kirkland Lake, Larder Lake, and Val d'Or). Additional work to further assess the economic potential of the known gold occurrences, along strike and at depth is strongly recommended.

To fulfill a requirement of the option agreement, a deep 3-D array IP survey including refreshing the historic grid should be conducted on the property.

The two main surface showings that returned anomalous gold values from the 1997 trenching program on the former Sedex/ Abitibi Mining group (Keast, 1999) should be freshened, and extended if possible, by mechanical stripping and re- examined to determine its genetic relationship to the mineralized zones identified in the drilling.

Following a review of the drill logs, the writer extracted the significant intercepts from the Lower and Upper Zones and recalculated the composite horizontal widths times the grade of the zones

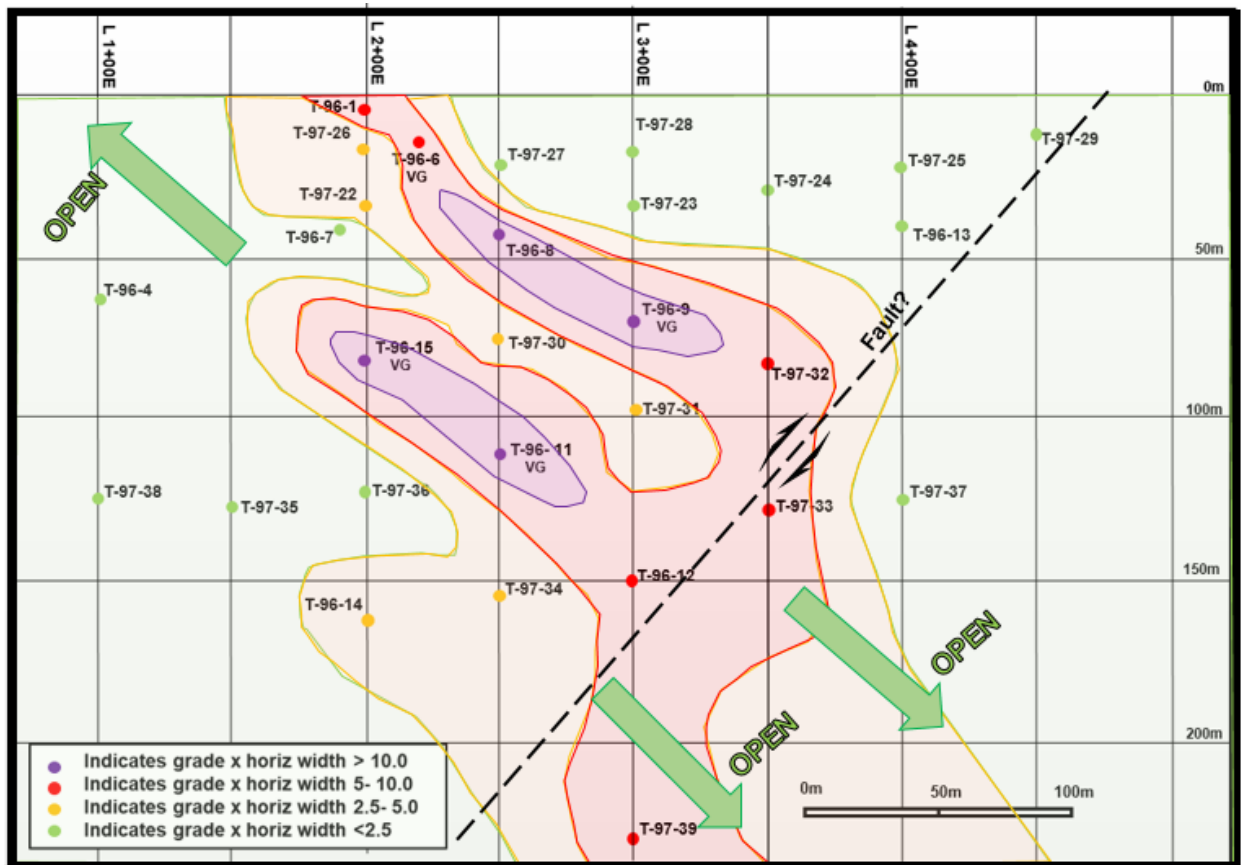


Figure 47: Longitudinal section plot of HW x G composite values of the Lower mineralized zone with possible cross fault offsetting the lower portion of the zone and possible drill targets testing the up and down plunge extensions of the zone.

to produce a contoured longitudinal section for the Lower Zone. Two higher grade gold-bearing chutes centred on easterly plunging alteration zones inferred from the section (Figure 47) should be projected to surface and stripped, and also down plunge where it should be drill tested. The proposed work program derived from the longitudinal section is contingent on the following:

- The Lower and Upper zones interpreted from the drilling should be projected to surface and those areas examined and stripped if feasible.
- Once the two mineralized horizons have been positively located on surface, the strike extensions should be traced and the mineralization and alteration patterns documented.
- Any alteration zones and veining exposed by any of the proposed stripping should be mapped in detail and channel sampled.
- Two higher grade, visible gold- bearing chutes centred on easterly plunging alteration zones which appear to be offset by a cross fault are inferred from the longitudinal section. The core of the zone has been drill tested to a depth of approximately 150 m vertical depth but is open down plunge below the interpreted cross fault and open up-plunge to the west. These areas should be targeted with drill holes. One hole is recommended to target the down plunge extension of the mineralized horizon (240m @ -55 degrees) with a second hole (280m @ -55 degrees) should the initial hole intersect the mineralized zones.
- Once the geometry of the mineralized zones is confirmed, additional drilling may be warranted along strike to the east and/ or west. Three short holes totalling 280m should adequately test the up plunge projections to the west and east.
- All of the known data, and any new information generated from the proposed recommendations relating to the mineralized zones, should be incorporated into a digital model.

Table 23 summarizes the type of work and estimated costs associated with the recommended work program. An estimated breakdown of each activity which includes associated transportation, accommodation, and salary related costs is also provided. It should be noted that this program constitutes what would be considered an initial program of exploration investigation on the Property.

Proposed Work Program	Total Cost
IP Survey	\$120,000.00
Mechanical stripping	\$9,000.00
Channel Sampling	\$4,000.00
Detailed mapping/ supervision	\$5,600.00
Diamond Drilling	\$120,000.00
Drill supervision/ logging/ sampling	\$10,500.00
Assaying	\$5,900.00
Reports	\$7,000.00
Modelling	\$6,000.00
Contingencies	\$27,000.00
TOTAL COSTS	\$315,000.00

Table 23: Proposed budget for the recommended exploration program for the

Tannahill Gold Property

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20. STATEMENT OF THE QUALIFIED PERSONS

I, Frank Rainer Ploeger of the town of Virginiatown, Province of Ontario, do hereby certify:

1) That I am a Consulting Geologist and reside at 21 Waite Avenue, Virginiatown, Ontario, P0K 1X0.

2) That I graduated from Queen's University at Kingston, Ontario with a Bachelor of Applied Science degree in 1973; and, that I completed 2 years of an MSc program at McMaster University in Hamilton, Ontario (1980- 1982).

3) That I am a **member in good standing of the Association of Geoscientists of Ontario (#479), the Geological Association of Canada, the Prospectors and Developers Association, and the Northern Prospectors Association.**

4) That I have practiced my profession as a mineral exploration and mine geologist in the Kirkland Lake area for a period of about 45 years and am currently self- employed.

5) I have read the definition of "Qualified Person" set out in National Instrument 43-101 and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfil the requirements to be a "Qualified Person" for the purposes of NI 43-101.

6) I have prepared this report titled "43-101F1 Technical Report on the Tannahill Gold Property Tannahill Township, Larder Lake Mining Division, Ontario, (NTS 32D05)" dated August 10, 2023.

7) I had no prior involvement with the Property, and this report is based on a reconnaissance visit to the property on May 15, 2023, followed by the direct supervision of the resampling program and the compilation of all known public historical data available at the time of writing.

8) I have not earned the majority of my income during the preceding three years from Atacama Resources International Corp. or any associated or any affiliated companies.

9) I do not own, directly or indirectly, any interest in the properties or securities of Atacama Resources International Corp., or any associated or affiliated companies. *As a point of Disclosure, it should be noted that C. J. Ploeger, one of the vendors, is the son of the writer.*

10) I am independent of the issuer applying all of the tests in section 3.5 of the Companion Policy of National Instrument 43-101.

11) I have read National Instrument 43-101 and Form 43-101F1 and have prepared this report in compliance with the Instrument and Form; as of the date of the certificate, to the best of my knowledge, information and belief, this report contains all the scientific and technical information required to be disclosed to make this report not misleading, and I am not aware of any material fact or material change with regard to the Property that would make the report misleading.



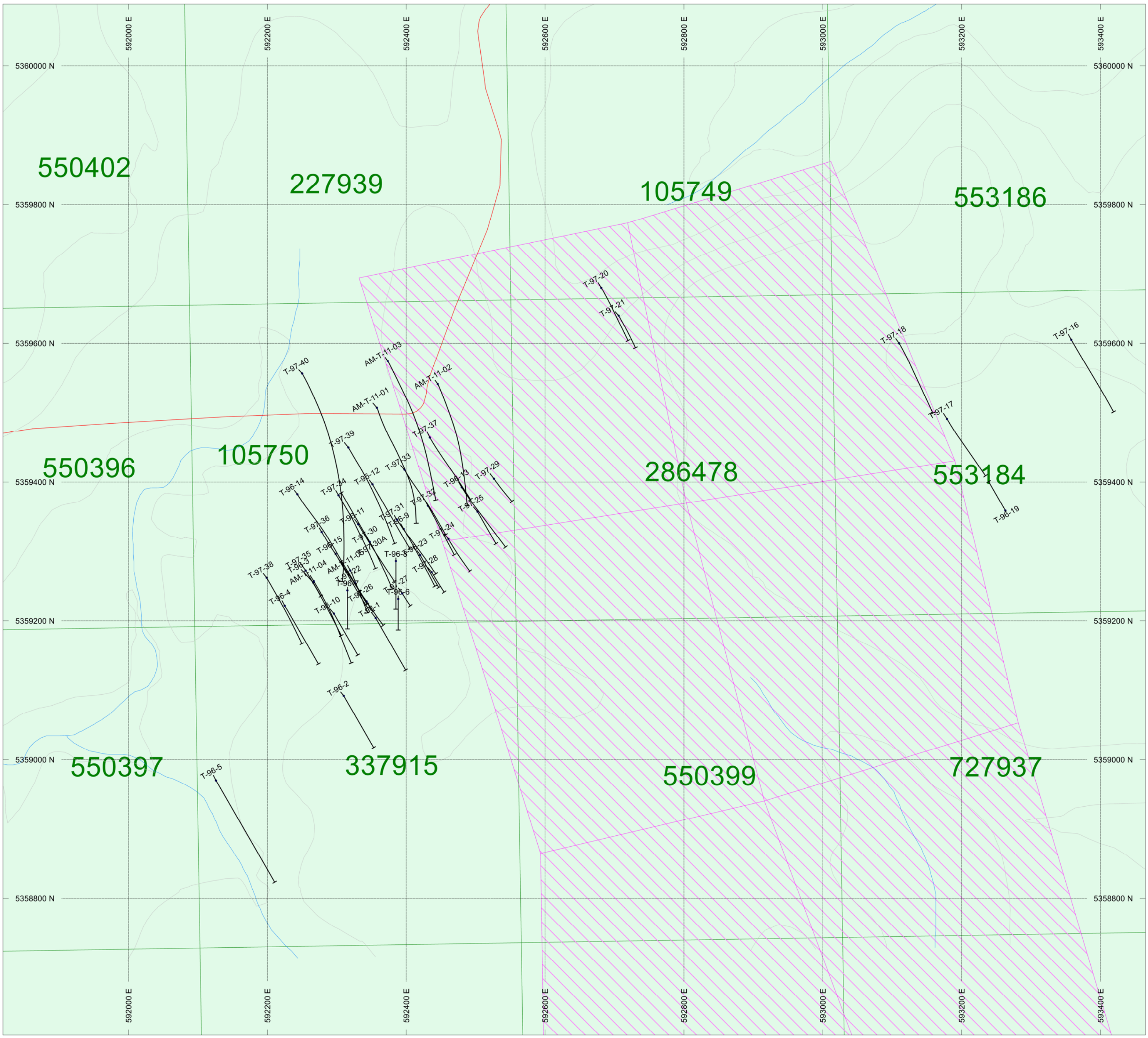
{Signed and sealed}

Frank R. Ploeger
August 11, 2023

21. APPENDICES

Appendix 1:

Diamond Drill Plan and Sections L100E, L150E, L200E, L250E, L300E, L350E, L400E and 450E

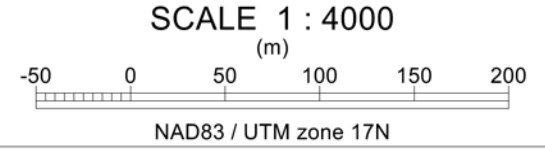


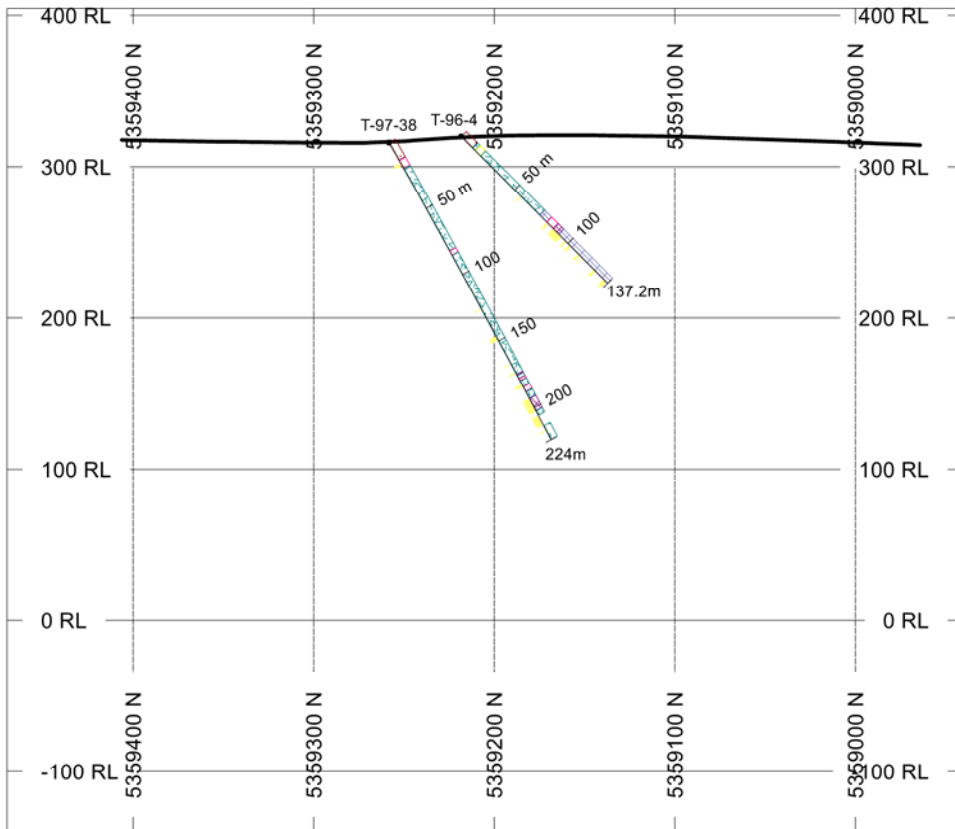
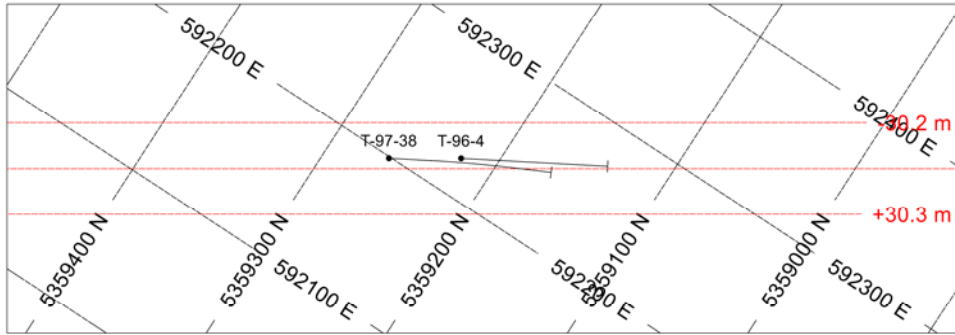
HOLES PLOTTED

TOTAL 46				
AM-T-11-01	AM-T-11-02	AM-T-11-03	AM-T-11-04	AM-T-11-05
T-96-1	T-96-10	T-96-11	T-96-12	T-96-13
T-96-14	T-96-15	T-96-19	T-96-2	T-96-23
T-96-3	T-96-4	T-96-5	T-96-6	T-96-7
T-96-8	T-96-9	T-97-16	T-97-17	T-97-18
T-97-20	T-97-21	T-97-22	T-97-24	T-97-25
T-97-26	T-97-27	T-97-28	T-97-29	T-97-30
T-97-30A	T-97-31	T-97-32	T-97-33	T-97-34
T-97-35	T-97-36	T-97-37	T-97-38	T-97-39
T-97-40				

- Road
- Contours
- Creeks
- Operational Cell Claims
- Surface rights Only

PLAN SPECS:
 REF. PT. E, N 592600 m 5359000 m
 EXTENTS 1646 m 1486 m





HOLES PLOTTED

TOTAL 2

T-96-4 T-97-38








TOPOGRAPHY

— Elevation.grd

NUMBER BANDS L/R PATTERN RANGE

Au_PPM L  0 to 0.5

ROCK CODES PAT LABEL DESCRIPTION

Rock	PAT	LABEL	DESCRIPTION
		ALTD	altered rock
		altd	weakly altered rock
		FPY	feldspar porphyry
		MSYN	monzosyenite
		MVOLp	Pillowed Mafic Volcanic Flows
		OVB	overburden
		SYPY	syenite porphyry

SECTION SPECS:

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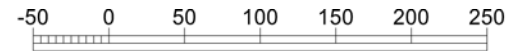
EXTENTS 632 m 544.6 m

SECTION TOP, BOT 404.5 m -140.2 m

TOLERANCE +/- 30.25 m

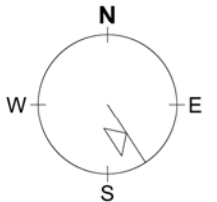
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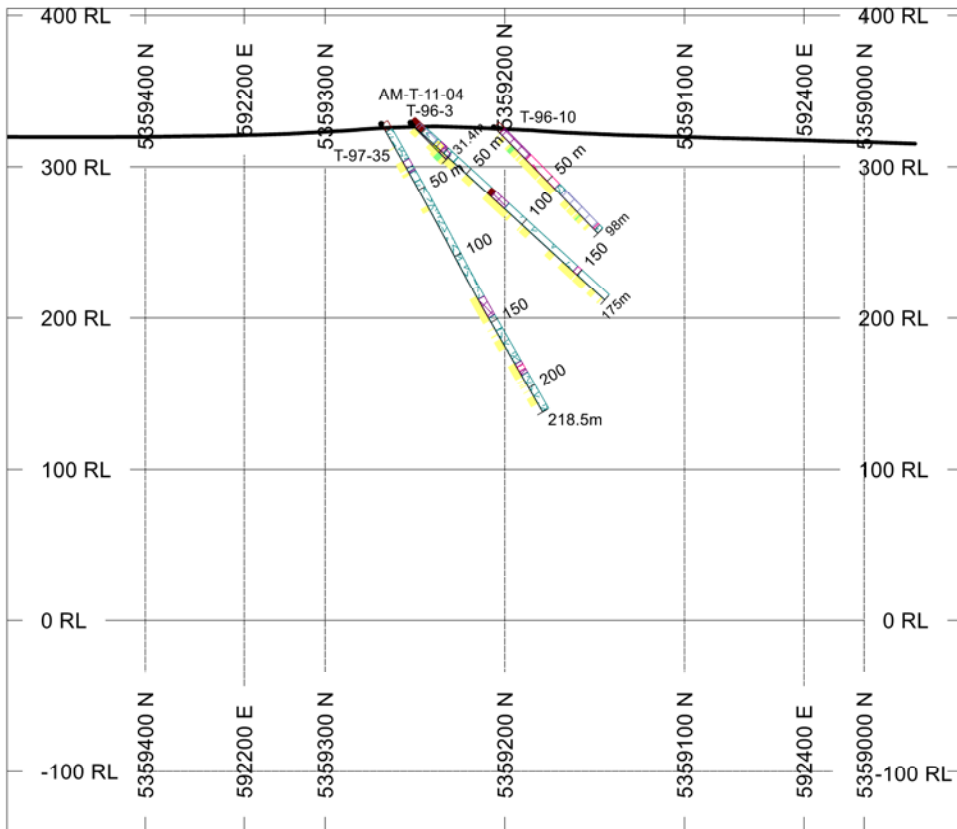
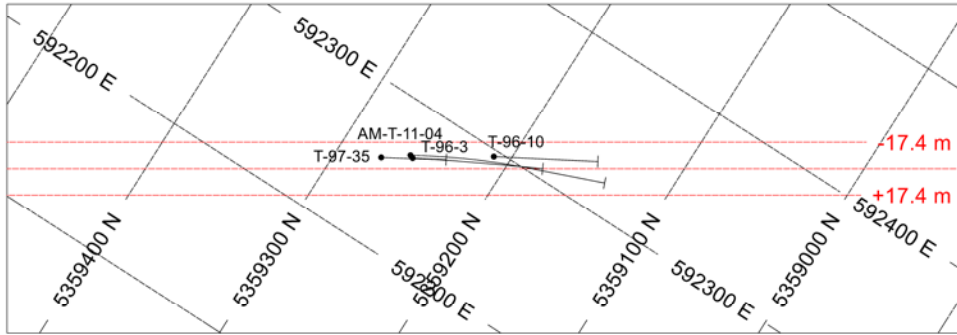


NAD83 / UTM zone 17N

AZIMUTH = 146.9°



Atacama International Resources
Tannahill Property
Section: L100E



HOLES PLOTTED

TOTAL 4

AM-T-11-04 T-96-10 T-96-3 T-97-35

TOPOGRAPHY

— Elevation.grd

NUMBER BANDS	L/R	PATTERN	RANGE
Au_PPM	L		0 to 0.5 0.5 to 3

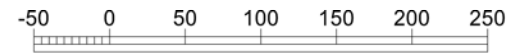
ROCK CODES	PAT	LABEL	DESCRIPTION
Rock		ALTD	altered rock
		altd	weakly altered rock
		ALTD FPY	altered feldspar porphyry
		BBC	broken block core
		FAZ	fault zone
		fgg	fault gouge
		FPY	feldspar porphyry
		LC	lost core
		MINT	mafic intrusive
		MSYN	monzosyenite
		MVOL	mafic volcanic
		MVOLp	Pillowed Mafic Volcanic Flows
		OVB	overburden
		SYPY	syenite porphyry

SECTION SPECS:

REF. PT. E, N 592286 m 5359211 m
 EXTENTS 632 m 544.6 m
 SECTION TOP, BOT 404.5 m -140.2 m
 TOLERANCE +/- 17.4 m

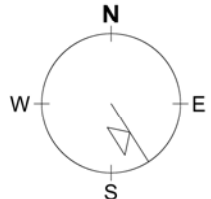
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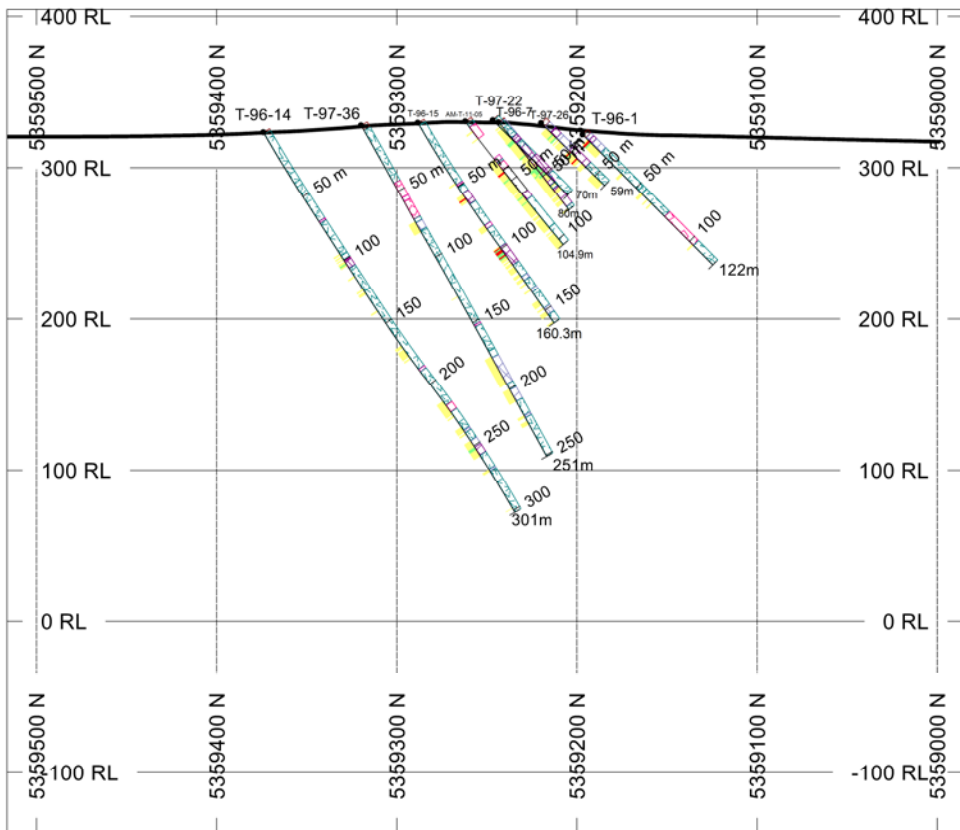
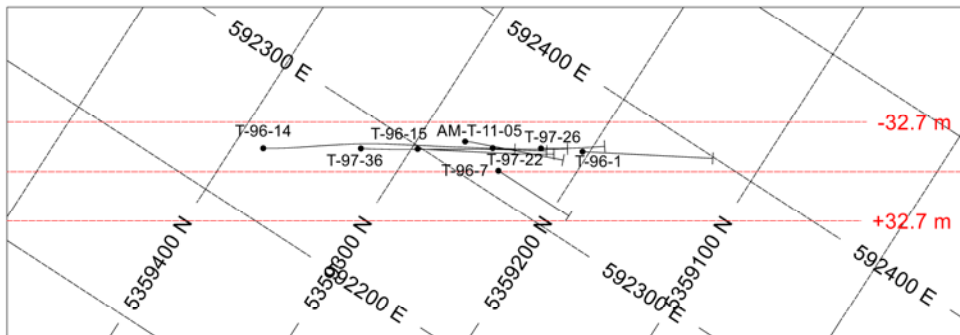


NAD83 / UTM zone 17N

AZIMUTH = 147.3°



Atacama International Resources
Tannahill Property
 Section: L150E



HOLES PLOTTED

TOTAL 8

AM-T-11-05	T-96-1	T-96-14	T-96-15
T-96-7	T-97-22	T-97-26	T-97-36

TOPOGRAPHY

— Elevation.grd

NUMBER BANDS	L/R	PATTERN	RANGE
Au_PPM	L		0 to 0.5
			0.5 to 3
			3 to 50

ROCK CODES

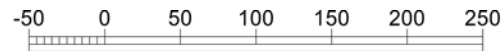
Rock	PAT	DESCRIPTION
ALTD		altered rock
altd		weakly altered rock
BLT		basalt
FAZ		fault zone
fgg		fault gouge
FPY		feldspar porphyry
MINT		mafic intrusive
MVOL		mafic volcanic
MVOLp		Pillowed Mafic Volcanic Flows
OVB		overburden
SYPY		syenite porphyry

SECTION SPECS:

REF. PT. E, N	592310 m	5359251 m
EXTENTS	632 m	544.6 m
SECTION TOP, BOT	404.5 m	-140.2 m
TOLERANCE +/-	32.7 m	

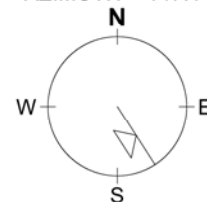
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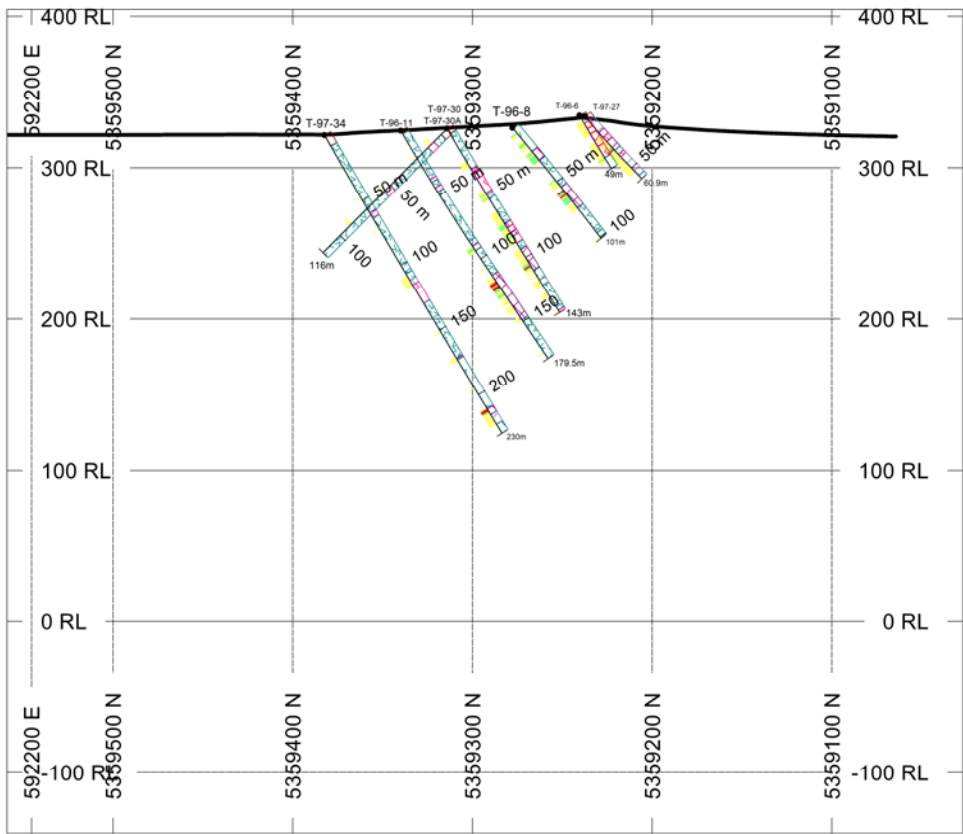
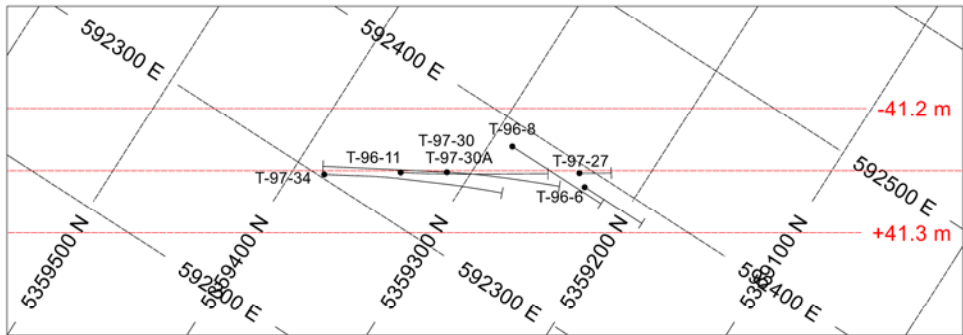


NAD83 / UTM zone 17N

AZIMUTH = 147.1°



Atacama International Resources
Tannahill Property
 Section: L200E



HOLES PLOTTED

TOTAL 7

T-96-11 T-96-6 T-96-8 T-97-27 T-97-30
 T-97-30A T-97-34

TOPOGRAPHY
 — Elevation.grd

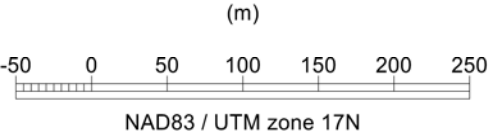
NUMBER BANDS	L/R	PATTERN	RANGE
Au_PPM	L		0 to 0.5
			0.5 to 3
			3 to 50

ROCK CODES	PAT	LABEL	DESCRIPTION
Rock		ALTD	altered rock
		altd	weakly altered rock
		ALTD FPY	altered feldspar porphyry
		FPY	feldspar porphyry
		MINT	mafic intrusive
		MVOL	mafic volcanic
		MVOLp	Pillowed Mafic Volcanic Flows
		OVb	overburden
		SYPY	syenite porphyry

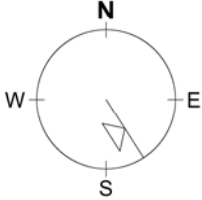
SECTION SPECS:

REF. PT. E, N 592362 m 5359293 m
 EXTENTS 632 m 544.6 m
 SECTION TOP, BOT 404.5 m -140.2 m
 TOLERANCE +/- 41.25 m

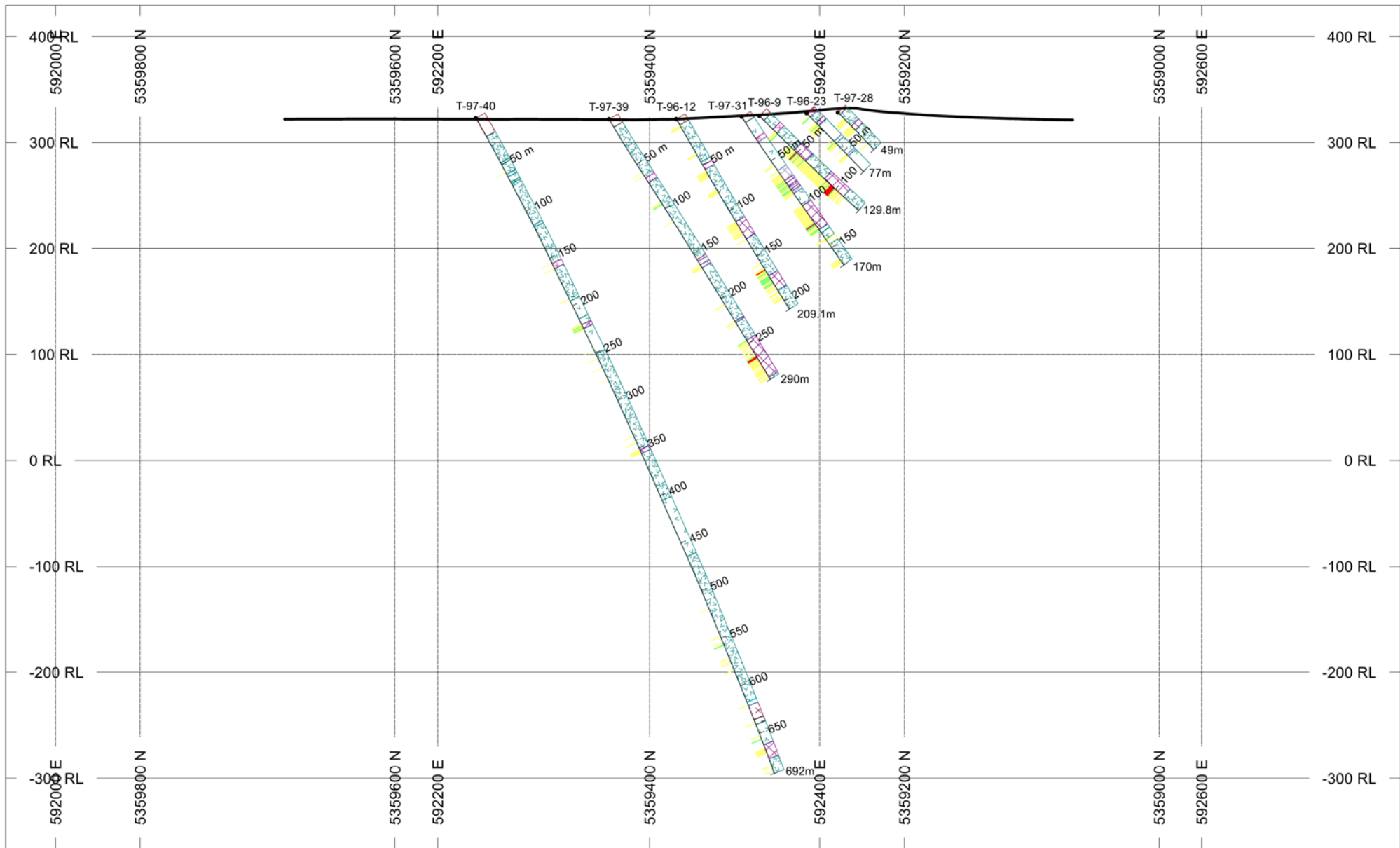
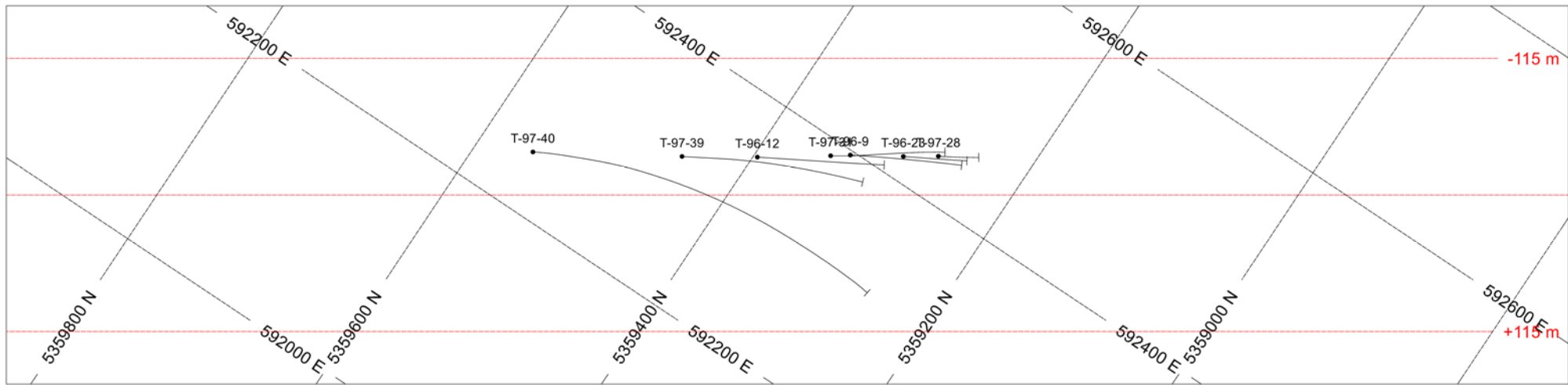
SCALE 1 : 5000



AZIMUTH = 147.3°



Atacama International Resources
Tannahill Property
Section: L250E



HOLES PLOTTED

TOTAL 7

- T-96-12
- T-96-23
- T-96-9
- T-97-28
- T-97-31
- T-97-39

TOPOGRAPHY

— Elevation.grd

NUMBER BANDS	L/R	PATTERN	RANGE
Au_PPM	L		0 to 0.5
			0.5 to 3
			3 to 50

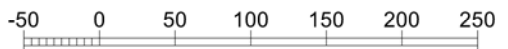
ROCK CODES	PAT	LABEL	DESCRIPTION
Rock		ALTD	altered rock
		altd	weakly altered rock
		CHRT	chert
		fgg	fault gouge
		FPY	feldspar porphyry
		IAGGL	Intermediate Agglomerate
		MINT	mafic intrusive
		MSYN	monzosyenite
		MVOL	mafic volcanic
		MVOLp	Pillowed Mafic Volcanic Flows
		OVB	overburden
		SYPY	syenite porphyry

SECTION SPECS:

REF. PT. E, N 592339 m 5359358 m
 EXTENTS 1316 m 796.1 m
 SECTION TOP, BOT 429.6 m -366.5 m
 TOLERANCE +/- 115 m

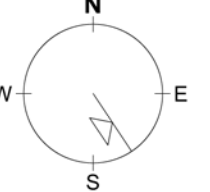
SCALE 1 : 5000

(m)

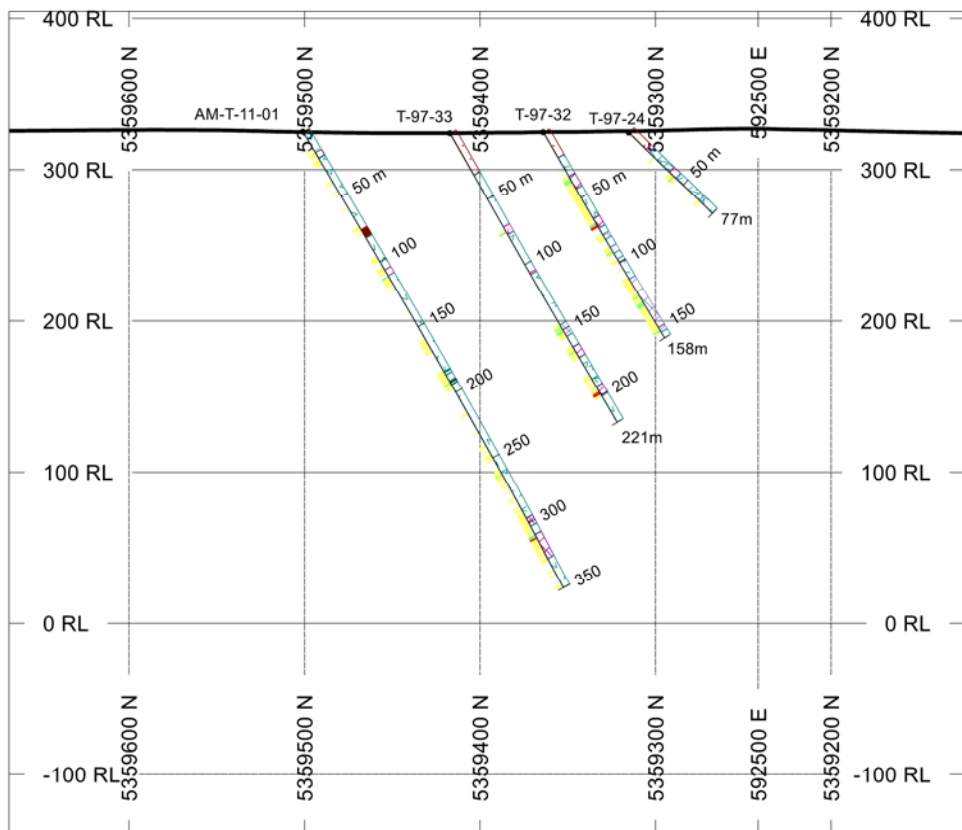
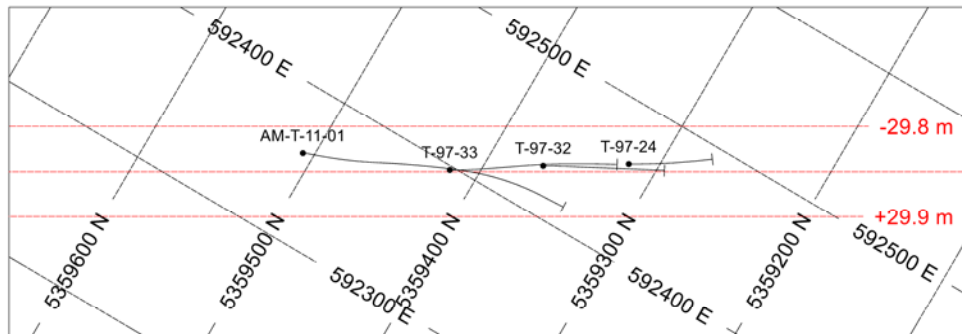


NAD83 / UTM zone 17N

AZIMUTH = 146.3°



Atacama International Resources
Tannahill Property
 Section: L300E



HOLES PLOTTED

TOTAL 4

AM-T-11-01 T-97-24 T-97-32 T-97-33

TOPOGRAPHY

— Elevation.grd

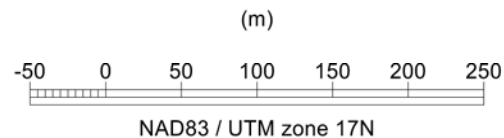
NUMBER BANDS	L/R	PATTERN	RANGE
Au_PPM	L		0 to 0.5
			0.5 to 3
			3 to 50

ROCK CODES	PAT	LABEL	DESCRIPTION
Rock		ALTD	altered rock
		altd	weakly altered rock
		BBC	broken block core
		FAZ	fault zone
		fgg	fault gouge
		FPY	feldspar porphyry
		LC	lost core
		MINT	mafic intrusive
		MVOL	mafic volcanic
		MVOLp	Pillowed Mafic Volcanic Flows
		OVb	overburden
		SYPY	syenite porphyry

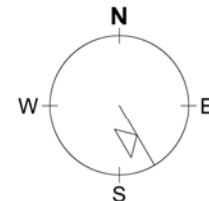
SECTION SPECS:

REF. PT. E, N 592409 m 5359396 m
 EXTENTS 632 m 544.6 m
 SECTION TOP, BOT 404.5 m -140.2 m
 TOLERANCE +/- 29.85 m

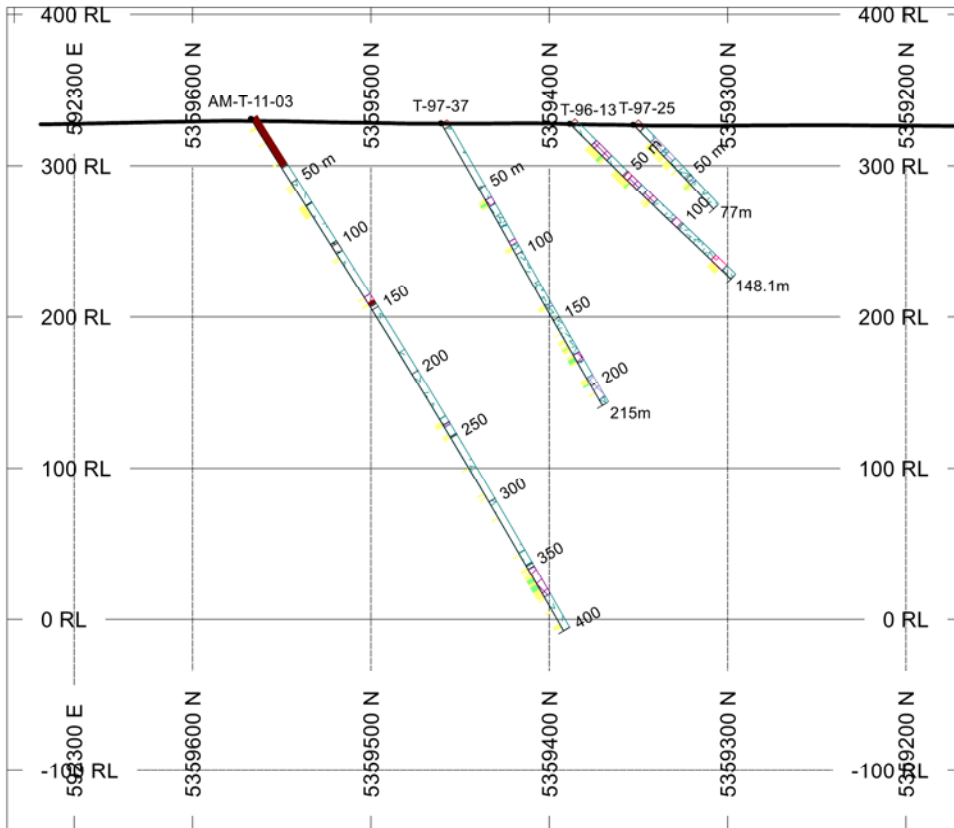
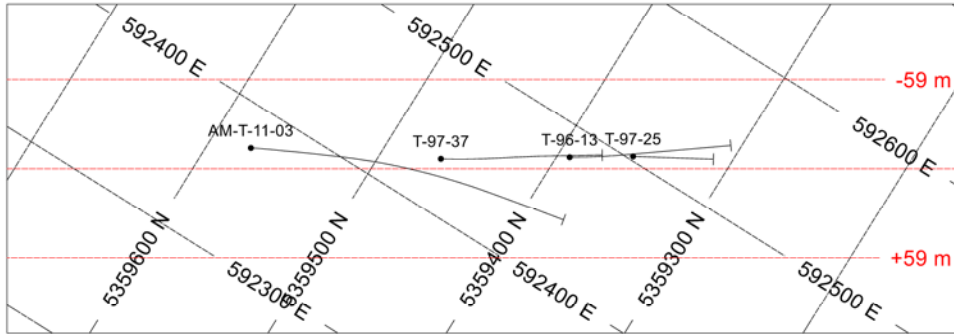
SCALE 1 : 5000



AZIMUTH = 149.5°



Atacama International Resources
Tannahill Property
Section: L350E



HOLES PLOTTED

TOTAL 4

AM-T-11-03

T-96-13

T-97-25

T-97-37

TOPOGRAPHY

— Elevation.grd

NUMBER BANDS L/R PATTERN RANGE

Au_PPM L  0 to 0.5
0.5 to 3

ROCK CODES PAT LABEL DESCRIPTION

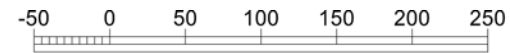
Rock	PAT	LABEL	DESCRIPTION
		ALTD	altered rock
		altd	weakly altered rock
		ALTD FPY	altered feldspar porphyry
		BBC	broken block core
		BLT	basalt
		FAZ	fault zone
		fgg	fault gouge
		FPY	feldspar porphyry
		MVOL	mafic volcanic
		MVOLp	Pillowed Mafic Volcanic Flows
		OVb	overburden
		SYPY	syenite porphyry

SECTION SPECS:

REF. PT. E, N 592444 m 5359436 m
 EXTENTS 632 m 544.6 m
 SECTION TOP, BOT 404.5 m -140.2 m
 TOLERANCE +/- 59 m

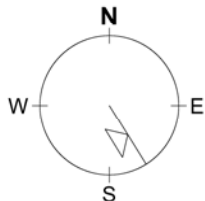
SCALE 1 : 5000

(m)

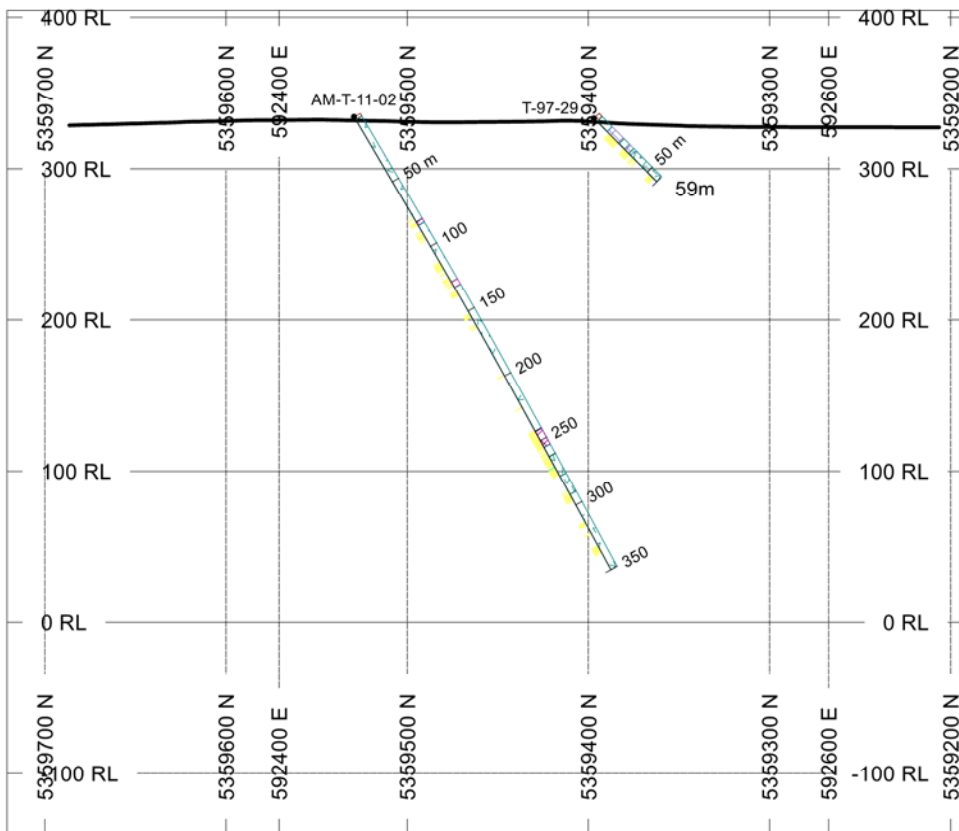
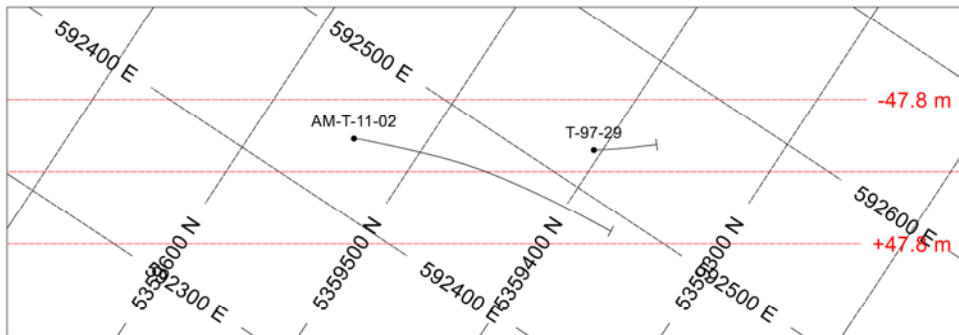


NAD83 / UTM zone 17N

AZIMUTH = 148°



Atacama International Resources
 Tannahill Property
 Section: L400E



HOLES PLOTTED

TOTAL 2

AM-T-11-02

T-97-29

TOPOGRAPHY

— Elevation.grd

NUMBER BANDS	L/R	PATTERN	RANGE
Au_PPM	L		0 to 0.5 0.5 to 3

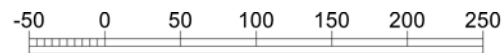
ROCK CODES	PAT	LABEL	DESCRIPTION
Rock		ALTD	altered rock
		altd	weakly altered rock
		BLT	basalt
		FAZ	fault zone
		fgg	fault gouge
		MVOL	mafic volcanic
		MVOLp	Pillowed Mafic Volcanic Flows
		OVb	overburden
		SYPY	syenite porphyry

SECTION SPECS:

REF. PT. E, N 592475 m 5359457 m
 EXTENTS 632 m 544.6 m
 SECTION TOP, BOT 404.5 m -140.2 m
 TOLERANCE +/- 47.8 m

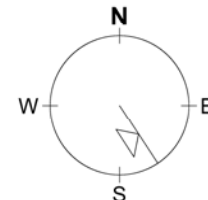
SCALE 1 : 5000

(m)



NAD83 / UTM zone 17N

AZIMUTH = 146.6°



Atacama International Resources
 Tannahill Property
 Section: L450E

Appendix 2:
ALS Assay Certificate



ALS Canada Ltd.
 2103 Dollarton Hwy
 North Vancouver BC V7H 0A7
 Phone: +1 604 984 0221 Fax: +1 604 984 0218
 www.alsglobal.com/geochemistry

To: ATACAMA RESOURCES INTERNATIONAL INC.
 1200 SOUTH PINE ISLAND ROAD
 PLANTATION FL 33324
 USA

Page: 1
 Total # Pages: 3 (A)
 Plus Appendix Pages
 Finalized Date: 7-AUG-2023
 Account: RESSATAC

CERTIFICATE RY23163329

Project: Tannahill Gold

This report is for 72 samples of Rock submitted to our lab in Rouyn-Noranda, QC, Canada on 16-JUN-2023.

The following have access to data associated with this certificate:

DANIEL FINCH	FRANK PLOEGER
--------------	---------------

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
LOG-21	Sample logging - ClientBarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-32	Pulverize 1000g to 85% < 75 um
LOG-23	Pulp Login - Rcvd with Barcode

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA26	Ore Grade Au 50g FA AA finish	AAS
Au-GRA22	Au 50 g FA-GRAV finish	WST-SIM

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.
 ***** See Appendix Page for comments regarding this certificate *****

Signature: *Nacera Amara*
 Nacera Amara, Chimiste 2015-065, Laboratory Manager, Val d



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Page: 2 - A
 Total # Pages: 3 (A)
 Plus Appendix Pages
 Finalized Date: 7-AUG-2023
 Account: RESSATAC

Project: Tannahill Gold

CERTIFICATE OF ANALYSIS RY23163329

Sample Description	Method Analyte Units LOD	WEI-21	Au-AA26	Au-GRA22
		Recvd Wt. kg	Au ppm	Au ppm
		0.02	0.01	0.05
X011956		0.21	37.5	NSS
X011957		0.35	0.16	
X011953		0.30	1.14	
X011954		0.06	1.09	
X011955		0.32	5.37	5.41
X011958		0.55	0.77	
X011959		0.51	0.58	
X011960		0.44	0.40	
X011961		0.49	0.33	
X011962		0.57	0.66	
X011963		0.46	1.59	
X011964		0.50	0.70	
X011965		0.82	1.02	
X011966		0.46	0.78	
X011967		0.41	1.36	
X011968		0.42	1.37	
X011969		0.49	0.44	
X011970		0.35	0.23	
E743462		0.06	1.76	
E743463		0.51	0.01	
X011971		0.54	0.17	
X011972		0.47	0.04	
X011973		0.37	0.49	
X011974		0.37	1.62	
X011975		0.58	1.97	
X011976		0.43	0.07	
X011977		0.37	0.06	
X011978		0.42	0.08	
X011979		0.27	1.75	
X011980		0.52	2.22	3.44
X011981		0.26	5.90	6.02
X011982		0.32	8.19	8.11
E743466		0.07	1.80	
E743467		0.55	0.01	
X011983		0.46	1.98	
X011984		0.51	1.48	
X011985		0.50	4.64	4.81
X011986		0.51	1.96	
X011987		0.62	0.39	
X011988		0.48	3.05	3.35



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Project: Tannahill Gold

CERTIFICATE OF ANALYSIS RY23163329

Sample Description	Method Analyte Units LOD	WEI-21	Au-AA26	Au-GRA22
		Recvd Wt. kg	Au ppm	Au ppm
		0.02	0.01	0.05
X011989		0.57	3.88	3.51
E743464		0.08	1.79	
E743465		0.53	<0.01	
X011990		0.60	1.84	
X011991		0.55	2.89	3.22
X011992		0.61	6.86	6.99
X011993		0.55	1.03	
X011994		0.53	0.72	
X011995		0.45	0.33	
X011996		0.40	0.55	
X011997		0.53	1.15	
X011998		0.39	0.54	
E743701		0.55	2.07	2.26
E743702		0.54	0.09	
E743703		0.36	0.07	
E743704		0.44	4.65	4.86
E743705		0.52	3.60	3.09
E743706		0.44	0.87	
E743707		0.59	1.24	
E743708		0.82	0.18	
E743709		0.81	2.93	3.12
E743468		0.08	1.79	
E743469		0.54	0.01	
E743710		0.71	<0.01	
E743711		0.71	<0.01	
E743712		0.89	2.55	3.55
E743713		0.51	0.25	
E743714		0.72	1.63	
E743715		0.76	0.23	
E743716		0.69	0.07	
E743717		0.78	2.15	2.58
E743718		0.82	1.12	



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Page: Appendix 1
Total # Appendix Pages: 1
Finalized Date: 7-AUG-2023
Account: RESSATAC

Project: Tannahill Gold

CERTIFICATE OF ANALYSIS RY23163329

CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

Applies to Method: NSS is non-sufficient sample.
ALL METHODS

LABORATORY ADDRESSES

Applies to Method: Processed at ALS Val d'Or located at 1324 Rue Turcotte, Val d'Or, QC, Canada.
Au-AA26 Au-GRA22

Applies to Method: Processed at ALS Rouyn-Noranda
CRU-31 CRU-QC LOG-21 LOG-23
PUL-32 PUL-QC SPL-21 WEI-21