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Technical Report for MINES Assessment Purposes, 2022 Prospecting Program

Swain Property

Casummit Lake Area Townships
Red Lake Mining Division
Ontario, Canada

Prepared For:



Prepared By:
Alexander Hughes, P. Geo



Date: November 25, 2022



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1 Introduction

The Swain Property (the “**Property**”) consists of 46 mining claims and covers an area of 1,833 hectares. The Property is 111 kilometers east of Red Lake, Ontario, and located within the Casummit Lake Area Townships of the Red Lake Mining Division. The property is currently owned fully by Solstice Gold Corp (100%). These claims are currently under a purchase option agreement with Trillium Gold.

Trillium Gold (“**Trillium**”) contracted Fladgate Exploration Consulting Corporation (“**Fladgate**”) to conduct a geological mapping and prospecting program over targeted areas of the Property from June 2022 to July 2022. Fladgate provided all the required geological, geotechnical, and sub-contractor services on the program described herein.

Over the course of the program a total of 72 locations were mapped. Data including lithology, structure, veining, and overall rock description were taken for each rock sample where applicable. In addition to this, 35 samples were collected and submitted for whole-rock geochemical analysis at Actlabs in Thunder Bay Ontario. The survey was performed as a preliminary mapping and prospecting program over the projected trend of the Swain Lake Deformation Zone which bisects the Swain Property. The results of the program indicate that the majority of the property is underlain by two dominant lithologies; (1) mafic volcanics with intercalated metasediments in the south portion of the Property and (2) felsic volcanics to the north. Mineralization was commonly observed in mafic volcanics with an increase in percentage when in proximity to the east-west trending shear structures. Subsequent detailed geophysical surveys are recommended to delineate future exploration targets on the property.

2 Terms of Reference

This report was prepared at the request of Trillium for the use of filing assessment as required under the Ontario Mining Act. Unless otherwise noted, Universal Transverse Mercator (“UTM”) coordinates are provided in the datum of NAD83 Zone 15.

3 Disclaimer

The author disclaims responsibility for portions of the current report that rely on information from historic assessment files and government maps and reports which may not have been prepared in compliance with current standards.



4 Property Description and Location

The Property is located within the McNaughton, Satterly Lake Area, and Shabumeni Lake Area Townships of the Red Lake Mining Division, approximately 90 kilometers east of Red Lake Ontario. The UTM co-ordinates for the centre of the property are 541,561 mE, 5,696,267 mN (Datum NAD 83 Zone 15). The property consists of 46 contiguous claims as outlined in

Table 4-1 and Figure 1.

The claims are held in good standing by Solstice Gold Corp and Gravel Ridge Resource. Eight of the claims are on an extension of time granted by the Provincial Mining Recorder's Office, which is extended until April 27, 2023. There are no known environmental liabilities or public hazards associated with the property, and work permits are not required in Ontario to perform the work prescribed in this report.

Table 4-1: Swain Project operational mining claims

Tenure ID	Township / Area	Tenure Type	Anniversary Date	Tenure Status	Tenure Percentage
626175	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626185	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626176	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626177	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626178	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626179	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626180	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626181	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626182	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626183	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626184	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626186	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626187	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
617180	CASSUMIT LAKE AREA	Multi-cell Mining Claim	2022-10-27	Hold Pending extension of time	(100) Solstice Gold Corp.
626188	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.



626189	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626190	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626191	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626192	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626193	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626194	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626195	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626196	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626197	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626198	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626199	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626200	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626201	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626202	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626203	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626204	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626205	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626206	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626207	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626208	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626209	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626210	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626211	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626212	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626213	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626214	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.



626215	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626216	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626217	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
626218	CASSUMIT LAKE AREA	Single Cell Mining Claim	2022-12-24	Active	(100) Solstice Gold Corp.
617179	CASSUMIT LAKE AREA	Multi-cell Mining Claim	2022-10-27	Hold Pending extension of time	(100) Solstice Gold Corp.

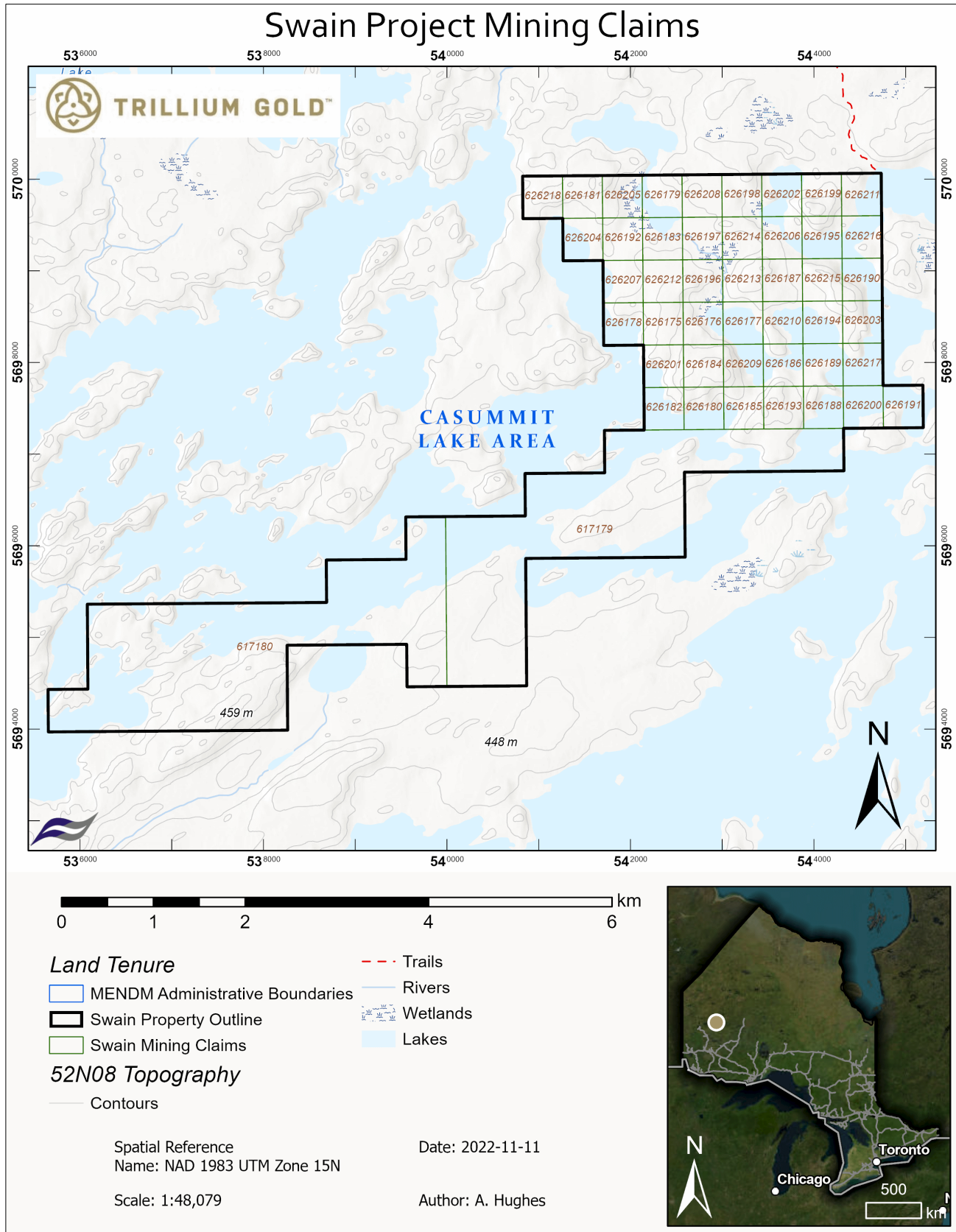


Figure 1: Property claim map



5 Access, Local Resources, and Infrastructure

The Property is located approximately 111 kilometres north east of the Municipality of Red Lake, Ontario. During late spring, summer, and early fall and is accessible by floatplane or ski equipped aircraft from Red Lake or Ear Falls. All fuel, food, and material supplies can be flown in from Red Lake or Ear Falls. Alternatively, access to the property can be gained by using secondary logging roads leading north east off Highway 105 at Ear Falls, Ontario to a staging point allowing boat access via Woman and Swain Lake.



Figure 2: Access to property



6 Climate and Physiography

Lakes cover approximately 40% of the area. Topography is generally gentle with elevations ranging from 400 to 440 meters above sea level. A mixed forest of mostly spruce, balsam, poplar and birch cover the area, with swampy vegetation in low-lying areas.

Temperatures range from highs of 35°C in summer to lows of -30°C in winter, with snow cover between November and May. The best season for exploration is between June and October, although in lake covered or swampy areas exploration activities such as geophysical surveys and diamond drilling might best be conducted after winter freeze up.

7 Geological Setting

7.1 Regional Geology

The Swain Property is located within the north portion of the Birch-Confederation metavolcanic-metasedimentary belt of the Uchi Subprovince (Figure 3). The belt is subdivided into three cycles, each beginning with tholeiitic pillowed basalt and andesite flows overlain by calc-alkaline andesitic and rhyolitic pyroclastics and capped by thin units of iron formation and marble (Burrows & Spooner, 1987).

1. Cycle I, the lowest cycle, consists of mafic and locally ultramafic rocks with lesser felsic volcanic rocks and intraformational sedimentary rocks interpreted as a platform sequence. Felsic volcanic rocks and sediments increase in abundance upwards through Cycle II and III.
2. Cycle II was deposited during early caldera development and Cycle III development from resurgent volcanism. This cycle consists of mafic-felsic flows with intercalated metasediments of the Mink-Casummit-Birch Lake area (Thurston, 1981)
3. Cycle III is felsic dominated including hypabyssal felsic intrusions and the South Bay VMS deposit.

The most noteworthy discontinuity in map-area corresponds to the Swain Lake deformation zone (SLDZ) which extends from Swain Lake to Southwest Bay of Birch Lake where it bifurcates into a number of zones which pass north of, through and south of the Western Peninsula. This zone is characterized by strong fabric development and local intense alteration and subdivides the map-area into two parts which have very different lithologic proportions and structural style. Northwest of the SLDZ, a predominantly metavolcanic sequence strikes in a generally north-easterly orientation, sub-parallel to the contact with the Mainprize Lake granitoid complex northwest of the Property. Southeast of the SLDZ, metasedimentary and subordinate metavolcanic rocks have a more irregular but generally easterly trend. The contrasting lithologies and divergent trends support the SLDZ is in part a fault system (Breakhouse, 1989).

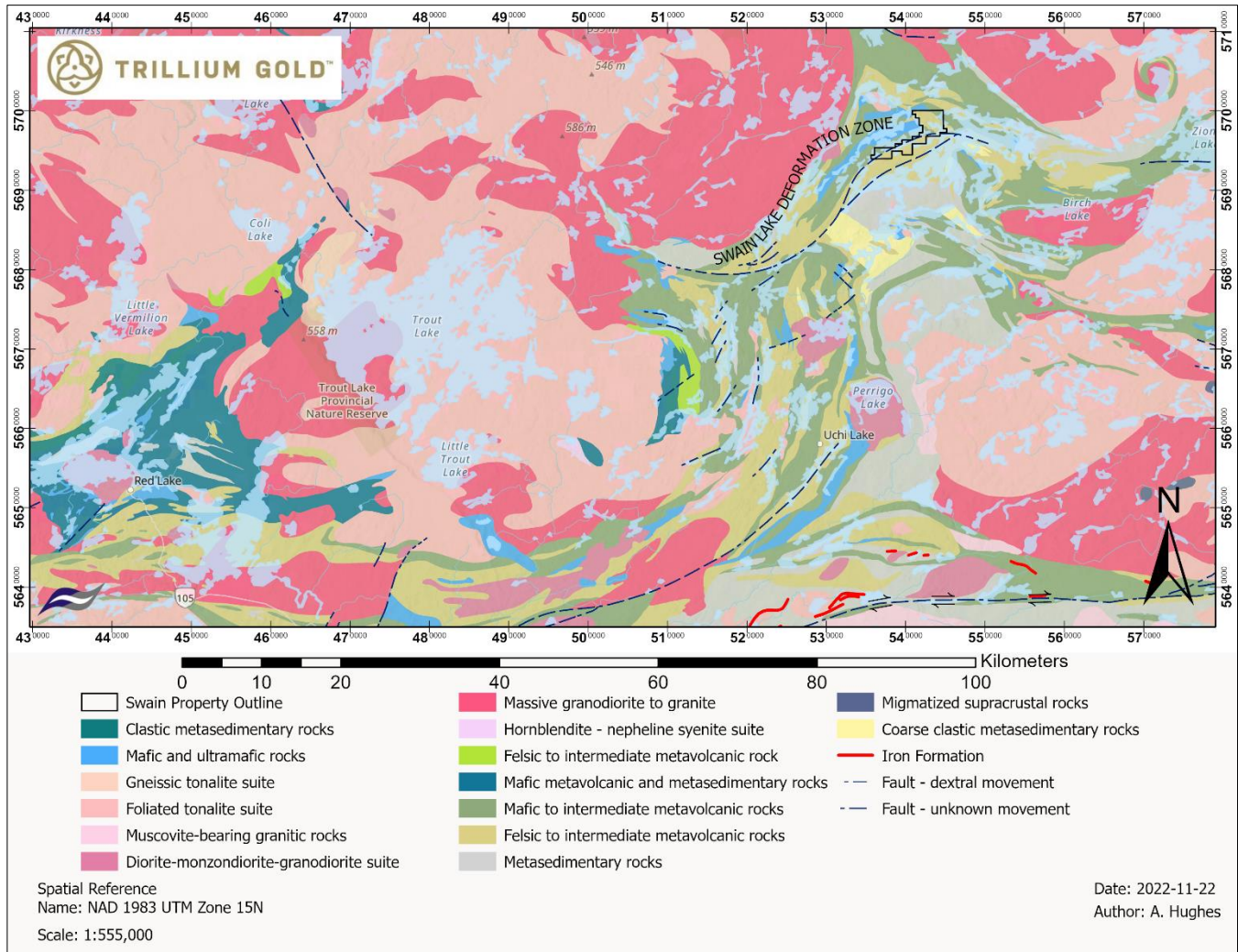


Figure 3: Regional Geology

7.2 Swain Property Geology

The Property is transected by the SLDZ (Figure 4), dividing the property into distinct assemblages and structural settings (Breakhouse, 1989). The majority of the Property is underlain by a sequence of mafic to intermediate metavolcanics. The mafic metavolcanics are comprised of massive pillowed, porphyritic and variolitic flows and hyaloclastic breccias. The intermediate metavolcanics are comprised of massive feldspar porphyritic flows with thin layers of intercalated chemical sediments.

The dominant fabric follows the SLDZ, with the exception of the west border where the fabric changes to approximately north to northeast that is indicative of a large scale antiform (Burrows & Spooner, 1987). The dominant fabric is northwest, with the exception of the very western margin where the rock fabric changes to approximately north.

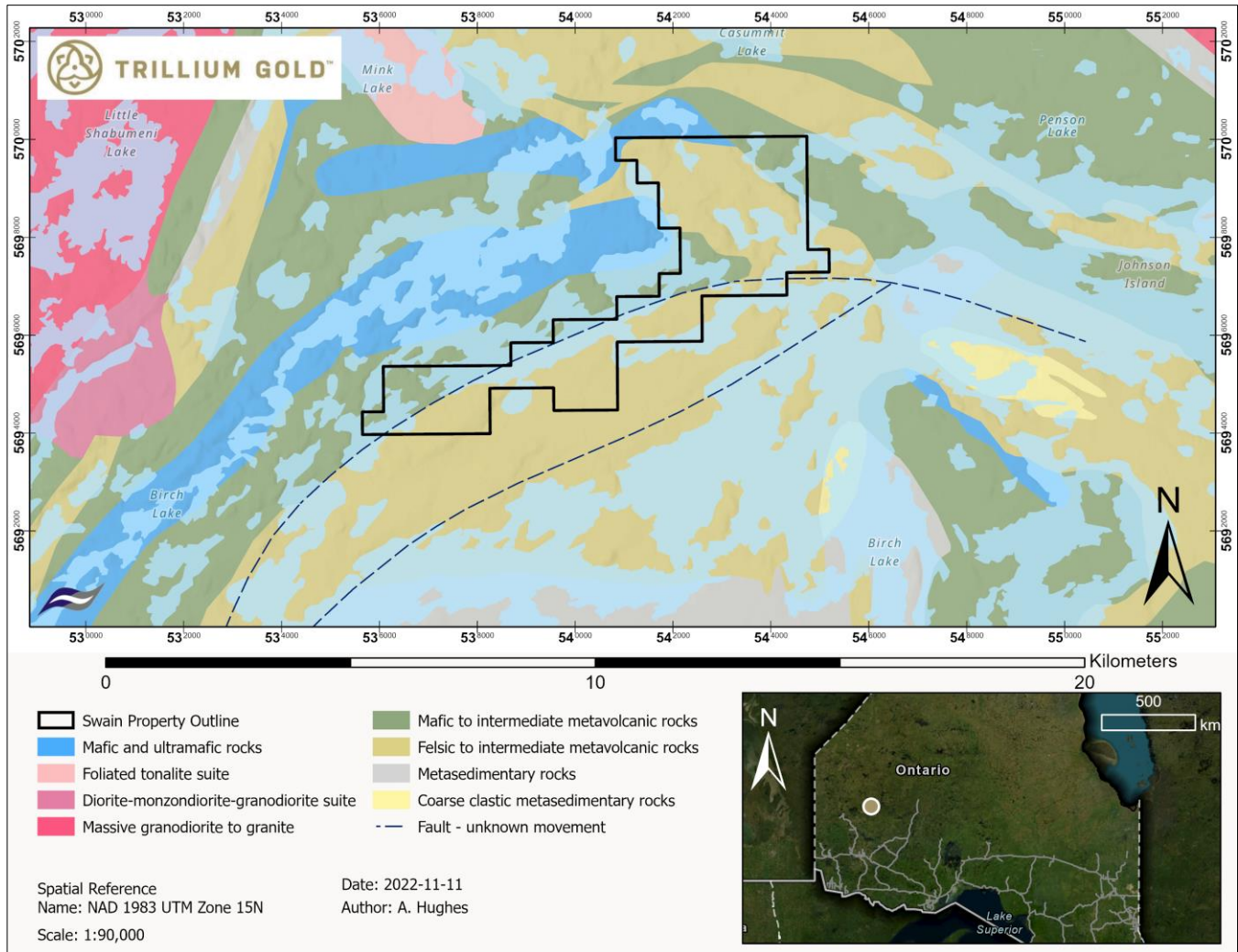


Figure 4: Property Geology



8 History of Exploration on the Property

Intensive exploration for gold along the Birch-Confederation metavolcanic-metasedimentary belt commenced in the late 1920's. From 1926 to 1940 numerous gold showings and prospects were discovered and developed in the area. Exploration activities were steady up to the early 2000's with Noranda carrying out the majority of exploration programs.

Gold production from the Birch Lake-Confederation Lake area has come from a total of nine mines. In the order of 250,000 ounces have been produced from the district during the period of 1928- 1966 when the last mine was closed down (Parker & Atkinson, 1992) The Argosy mine has the bulk of production, producing 101,875 ounces of gold. Approximately 276,500 tons of ore were milled at a grade of 0.368 oz/t Au.

Table 8-1: Exploration activities completed on the Swain Property

AFRI	YEAR	COMPANY	TOWNSHIP	WORK DESCRIPTION
52N08NW0072	1969	Canex Aerial Expl Ltd	Casummit Lake Area	Airborne Electromagnetic
52N08NW9836	1970	Canex Aerial Expl Ltd	Casummit Lake Area	Diamond Drilling
52N08NW9836	1970	Canex Aerial Expl Ltd	Casummit Lake Area	Diamond Drilling
20000005606	1976	Mcintyre Mines Ltd	Casummit Lake Area	Electromagnetic, Linecutting, Magnetic/Magnetometer Survey
20000005610	1978	Utah Mines Ltd	Casummit Lake Area	Electromagnetic, Linecutting, Magnetic/Magnetometer Survey
52N09SW0007	1981	Noranda Exploration Co	Casummit Lake Area	Airborne Electromagnetic, Airborne Magnetometer
52N08NW0034	1987	St Joe Canada Inc	Casummit Lake Area	Electromagnetic Very Low Frequency, Magnetic/Magnetometer Survey
20000006236	1987	Bond Gold Canada Inc	Honeywell	Diamond Drilling
20000006236	1987	Bond Gold Canada Inc	Honeywell	Diamond Drilling
20000005592	1988	Gold Fields Canadian Mining Ltd	Casummit Lake Area	Assaying and Analyses, Diamond Drilling



52N08NW0116	1990	Noranda Exploration Co	Casummit Lake Area	Assaying and Analyses
52N08NW0123	1990	Noranda Exploration Co	Casummit Lake Area	Bedrock Trenching, Geochemical
52N08NW0123	1990	Noranda Exploration Co	Casummit Lake Area	Bedrock Trenching, Geochemical
52N08NW0123	1990	Noranda Exploration Co	Casummit Lake Area	Bedrock Trenching, Geochemical
52N08NW0120	1990	Noranda Exploration Co	Casummit Lake Area	Geochemical, Other
52N08NW0120	1990	Noranda Exploration Co	Casummit Lake Area	Geochemical, Other
52N08NW0127	1990	Noranda Exploration Co	Casummit Lake Area	Assaying and Analyses, Bedrock Trenching
52N08NW0118	1990	Noranda Exploration Co	Casummit Lake Area	Geochemical, Other
52N08NW0119	1990	Noranda Exploration Co	Casummit Lake Area	Geological Survey/Mapping
52N08NW0116	1990	Noranda Exploration Co	Casummit Lake Area	Assaying and Analyses
52N08NW0123	1990	Noranda Exploration Co	Casummit Lake Area	Bedrock Trenching, Geochemical
52N08NW0120	1990	Noranda Exploration Co	Casummit Lake Area	Geochemical, Other
52N08NW0120	1990	Noranda Exploration Co	Casummit Lake Area	Geochemical, Other
52N08NW0116	1990	Noranda Exploration Co	Casummit Lake Area	Assaying and Analyses
52N08NW0024	1990	Noranda Exploration Co	Keigat Lake Area	Airborne Electromagnetic Very Low Frequency, Airborne Magnetometer
52N08NW0123	1990	Noranda Exploration Co	Casummit Lake Area	Bedrock Trenching, Geochemical



52N08NW0123	1990	Noranda Exploration Co	Casummit Lake Area	Bedrock Trenching, Geochemical
52N08NW0120	1990	Noranda Exploration Co	Casummit Lake Area	Geochemical, Other
52N08NW0120	1990	Noranda Exploration Co	Casummit Lake Area	Geochemical, Other
52N08NW9824	1990	Noranda Exploration Co	Casummit Lake Area	Diamond Drilling
52N08NW9824	1990	Noranda Exploration Co	Casummit Lake Area	Diamond Drilling
52N08NW0123	1990	Noranda Exploration Co	Casummit Lake Area	Bedrock Trenching, Geochemical
52N08NW0120	1990	Noranda Exploration Co	Casummit Lake Area	Geochemical, Other
52N08NW0123	1990	Noranda Exploration Co	Casummit Lake Area	Bedrock Trenching, Geochemical
52N08NW0123	1990	Noranda Exploration Co	Casummit Lake Area	Bedrock Trenching, Geochemical
52N08NW2001	1996 - 1997	Freewest Resources Inc	Casummit Lake Area	Compilation and Interpretation - Geology, Geochemical, Open Cutting, Prospecting
52N08NW2003	1998	Perry English	Casummit Lake Area	Compilation and Interpretation - Diamond Drilling, Geochemical, Geological Survey/Mapping, Regional or Reconnaissance Ground Exploration
52N08NW2003	1998	Perry English	Casummit Lake Area	Compilation and Interpretation - Diamond Drilling, Geochemical, Geological Survey / Mapping, Regional or Reconnaissance Ground Exploration
52N08NW2011	2001	Jonpol Explorations Ltd, Wolfden Resources Inc	Casummit Lake Area	Assaying and Analyses, Diamond Drilling, Magnetic/Magnetometer Survey, Open Cutting



20000007596	2010	Gold Canyon Resources Inc, Jubilee Gold Inc, Shirley Frahm	Casummit Lake Area	Assaying and Analyses, Diamond Drilling, Microscopic Studies
20000007944	2013	Renforth Resources	Little Shabumeni Lake Area	Airborne Electromagnetic Very Low Frequency, Airborne Magnetometer
20000007944	2013	Renforth Resources	Little Shabumeni Lake Area	Airborne Electromagnetic Very Low Frequency, Airborne Magnetometer
20000020238	2020	ALX Resources Corp	Casummit Lake Area	Airborne Electromagnetic Very Low Frequency, Airborne Magnetometer, Airborne Radiometric, Airborne Resistivity



9 Current Program

From June 2022 to July 2022 Fladgate conducted a reconnaissance mapping and sampling survey on behalf of Trillium. Activities during this time included grassroots prospecting and grab sampling in the areas of North Bay, Williams Bay and inland prospecting of the with focus given to preliminary mapping of the property and expand known mineralization. Field crews and gear were transported by bush-plane from Ear Falls to Birch Lake Outpost and were then boated to Sable Island (15N 544,883E 5,695,525N) where a remote camp was established. This location was chosen due to its proximity to both Trillium’s Satterly Lake and Swain properties.

Personnel, daily logs, and a breakdown of mapped locations, prospecting samples, and traverse kilometers per claim can be found in Table 9-1, Table 9-2, and Table 9-3 respectively.

Table 9-1: Personnel log

Name	Title	Start Date	End Date	Job Description
Kyle Pederson	Project Geologist	June 11, 2022	June 14, 2022	Logistics. Traverse planning. Field crew lead.
		June 23, 2022	June 26, 2022	
Sean Israelson	Project Geologist	June 11, 2022	June 16, 2022	Logistics. Traverse planning. Field crew lead.
		July 20, 2022	July 23, 2022	
Patrick Johnson	Project Geologist	June 16, 2022	June 25, 2022	Logistics. Traverse planning. Field crew lead.
William Belhouse	Geology Technician	June 15, 2022	June 23, 2022	Logistics. Assist Project Geologist. Mobilization and demobilization
		July 20, 2022	July 27, 2022	
Marcel Lacoste	Geology Technician	June 11, 2022	June 14, 2022	Logistics. Assist Project Geologist with field work
		June 23, 2022	June 26, 2022	
Conor Finch	Project Geologist	July 23, 2022	July 26, 2022	Logistics. Traverse planning. Field crew lead.
Wulfric Harris-Stoetz	Geology Technician	July 23, 2022	July 26, 2022	Logistics. Assist Project Geologist with field work
Jacob Schneider	Geology Technician	June 21, 2022	June 22, 2022	Program demobilization
Leah Clapp	Geologist	June 9, 2022	June 11, 2022	Program planning, data and GIS management
Alexander Hughes	Geologist	November 1, 2022		GIS database management, data processing, and report writing

Table 9-2: Daily field logs

Date (YYYY-MM-DD)	Work Description
2022-06-11	Source, pack and prepare equipment, tools and food
2022-06-12	Drive from Thunder Bay to Ear Falls



2022-06-13	Mobilize gear, fly to Birch Lake and boat to island
2022-06-14	Campsite clearing and camp setup
2022-06-15	Project site access and recon
2022-06-16	Shoreline prospect East of North Bay
2022-06-17	Rain Day
2022-06-18	Inland prospect East of North Bay
2022-06-19	Inland prospect East of North Bay
2022-06-20	Shoreline and Inland Prospect Williams Bay
2022-06-21	Shoreline Prospect SLDZ (Swain Lake Deformation Zone)
2022-06-22	Demobilize and return to Ear Falls
2022-06-23	Drive from Ear Falls to Thunder Bay
2022-07-20	Drive from Thunder Bay to Ear Falls
2022-07-21	Mobilize gear, fly to Birch Lake and boat to island
2022-07-22	Shoreline Prospect Williams Bay
2022-07-23	Inland Prospect SLDZ (Swain Lake Deformation Zone)
2022-07-24	Rain Day
2022-07-25	Inland Prospect SLDZ (Swain Lake Deformation Zone)
2022-07-26	Shoreline Prospect SLDZ (Swain Lake Deformation Zone)

Table 9-3: Work amount per claim for Trilliums 2022 Swain prospecting and mapping program

Tenure Number	Mapped Points Per Claim	Structure Points Per Claim	Samples Per Claim	Kilometers Traversed Per Claim	Work %
626175	3	1	2	2.06	3.6
626176	2	1	0	0.53	1.6
626178	0	0	0	1.16	0.5
626180	0	0	0	0.99	0.4
626181	1	0	0	0.38	0.6
626182	1	0	0	2.36	1.5
626186	2	2	1	0.61	2.5



Tenure Number	Mapped Points Per Claim	Structure Points Per Claim	Samples Per Claim	Kilometers Traversed Per Claim	Work %
617180	40	18	25	40.03	54.2
626188	6	3	0	2.14	4.9
626189	5	2	1	0.92	3.9
626193	4	3	2	0.60	4.2
626196	1	0	0	0.13	0.5
626201	0	0	0	0.54	0.2
626204	0	0	0	0.27	0.1
626207	0	0	0	0.03	0.0
626212	3	1	1	1.45	2.8
626218	1	0	0	0.90	0.8
617179	3	1	3	32.96	17.6
TOTALS	72	32	35	88.05	100

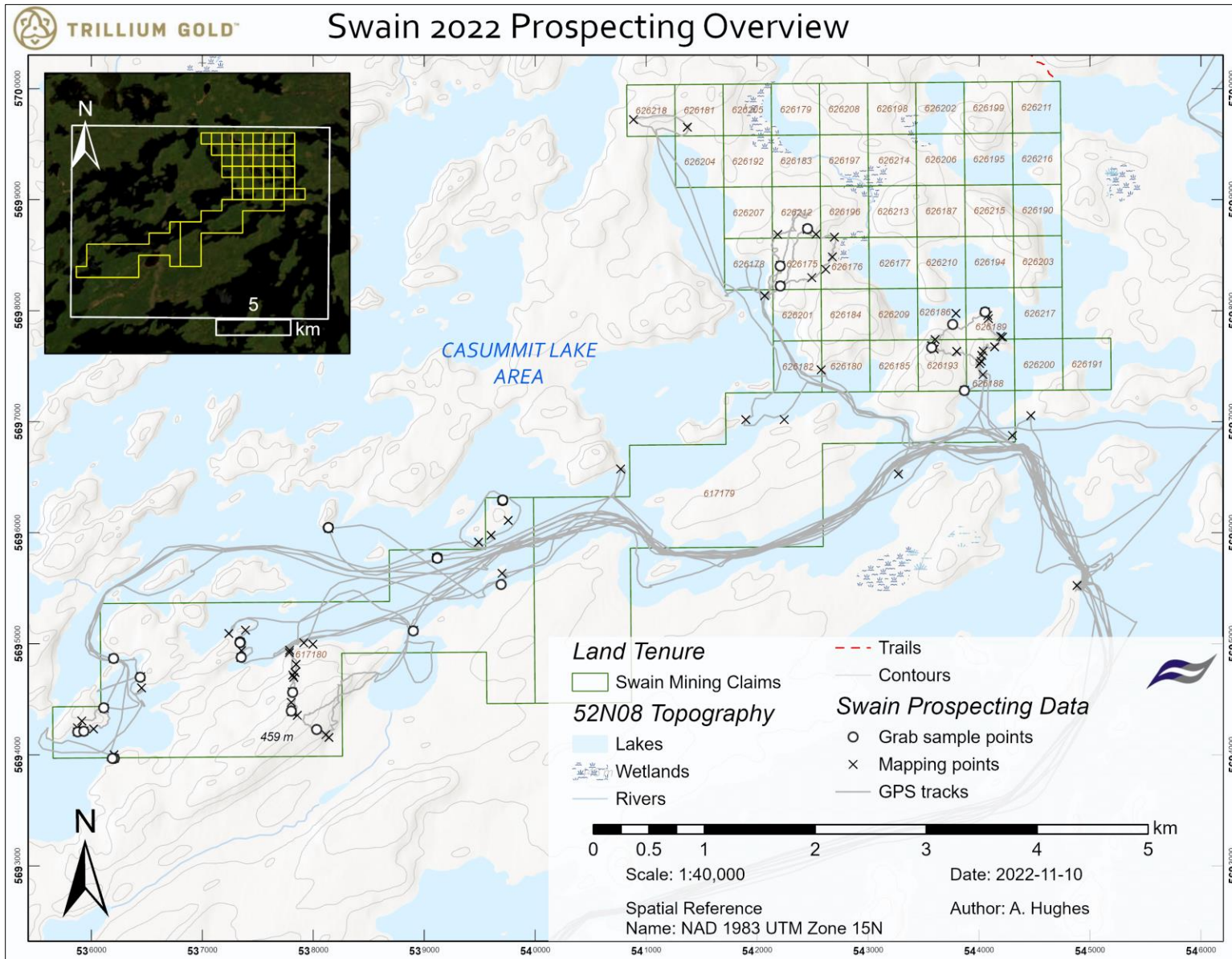


Figure 5: 2022 prospecting and mapping program overview



10 Methods and Approach

All sampling and prospecting was conducted using aluminum boats with outboard motors for transportation and a handheld Garmin GPS for navigation. Grab samples were collected by breaking off a representative sample using a hammer, writing the corresponding sample number from the booklet onto the sample bag, putting 15cm diameter sized sample in the bag with the corresponding tag, and taking an outcrop picture where the sample was taken. Data such as lithology, structural measurements and rock descriptions was collected at each sample and mapped site. Using flagging tape, the location of the sample was marked on the ground and in a tree above.

Samples were compiled into rice bags and transported by Fladgate staff to Actlabs in Thunder Bay, Ontario. Actlabs, an accredited ISO/IEC 17025 lab. All samples underwent two analysis methods;

- (1) litho geochemistry/whole-rock analysis using INAA, major element fusion ICP, total digestion ICP and XRF pressed pellet (4E-Expl + XRF)
- (2) standard fire assay procedures with an atomic absorption finish using a 50-gram sample (1A2B-50)

11 Results

11.1 Mapping

A total of 72 locations were mapped during the 2022 program. Of the mapped locations the dominant lithology seen was a melanocratic semi-massive to massive, medium grained mafic volcanic hosting localized oxidation paired with approximately 1-3% sulphide mineralization (Figure 6). The second most abundant lithology occurred as fine-grained, leucocratic felsic volcanics with a weakly defined foliation and local oxidation.

Both mafic and felsic units showed evidence of shearing and a weakly defined foliation (Figure 7). Felsic units with increased silicate alteration were the most common unit. Visually this was not seen as a vector for sulphide mineralization within felsic units. In the south portion of the property all structure measurements taken had an approximate northeast-southwest trend which lines up well with the SLDZ while mapped structures to the north changed southeast-northwest.

Field data and maps of all recorded lithologies and structures are located in Appendix I



Figure 6: Waypoint 2 – 4. Massive mafic volcanic with weak schistosity and chlorite alteration. Sample was noted to contain 1% disseminated pyrite mineralization.



Figure 7: Waypoint 2 – 8. Shearing hosted in felsic volcanic rock in proximity to SLDZ.

11.2 Grab Samples

Of the 35 grab samples taken higher gold values commonly occurred in massive to semi-massive mafic volcanics and felsic volcanics in the southwest area of the Property in proximity to shearing structures. The highest grab sample at 4.91 Au g/mt (Sample 1309212) was noted to contain moderate north-easterly shearing and foliation paired with local gossan staining. Pyrite in this sample was seen to be spatially associated with the vuggy texture as a result of shearing. In contrast, sample 1309213 was taken 4.5 meters south of 1309212 and came back below detection limit (<0.005 g/mt). This sample was noted to not contain any discernable structural features or alteration beyond surficial weathering.



Sample 1309216, a mesocratic pink-green, fine grained felsic volcanic with trace pyrite mineralization, returned 0.342 g/mt. Samples taken in the north portion of the property returned only anomalous gold values.

Sample descriptions, gold assay results, and location maps are located in Appendix II. The full suite of lithochemical results can be found in Appendix III

12 Conclusion and Recommendations

Mapping of the Swain property confirmed historical regional and property scale mapping. The Property is bisected by the SLDZ (Figure 4), which divides the property into distinct assemblages and structural settings (Breakhouse, 1989). The majority of the south portion of the Property is underlain by mafic to intermediate volcanics. To the north assemblages consist of felsic volcanics comprised of feldspar porphyritic flows. Both of these units were mixed with thin layers of intercalated chemical sediments.

The dominant fabric of the Property follows the SLDZ, with the exception of the west border where the fabric changes to approximately north to northeast that is indicative of a large scale antiform as noted by Burrows & Spooner (1987).

Prospecting indicates that the majority of higher gold assays that were returned came from those mafic volcanics hosting weak to moderate shear structures and foliation. The highest gold assay returned (sample 1309212) was hosted in gossan stained mafic volcanic with brittle deformation as a result of shearing either below or just above detection limit. Grab samples taken in felsic volcanics returned only anomalous gold assays regardless of alteration or structural deformation.

It is recommended that further inland prospecting and detailed mapping be completed in the south segment of the Property with respect given to structural features in proximity to higher gold assays. At a property-scale a geophysical magnetic survey may be flown to help delineate prospecting targets. Following this, a soil sampling program over prospective targets can be conducted to outline future diamond drilling targets.



13 Program Expenses & Cost Per Claim

See attached document(s).

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15 Statement of Qualification

Alexander Hughes, HB.Sc., P.Geo.
Fladgate Exploration Consulting Corporation
101 – 278 Bay St.
Thunder Bay, Ontario
Canada
Telephone: (807) 345.5380

CERTIFICATE OF THE AUTHOR

I, Alexander Hughes, do hereby certify that:

1. I am an employee of Fladgate Exploration Consulting Corporation, the geological consulting firm tasked with this report.
2. I am a member in good standing of the Association of Professional Geoscientists of Ontario (APGO #3669).
3. I am a graduate of the Lakehead University (Hons. B.Sc., 2017).
4. I have practiced geology for 5 years in a variety of settings, mostly in Northwestern Ontario, Canada. I have specific experience in Archean lode gold deposits in Ontario as both a production and exploration geologist at various gold mines throughout Ontario.
5. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
6. I consent to the filing of this Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their website accessible by the public

Dated November 25, 2022

Alexander Hughes, HB.Sc, P.Geo (APGO # 3669)



16 Appendix I – Lithology Mapping and Structure Data

Table 16-1: Swain lithology data

Waypoint ID	East (x)	North (y)	Collected By	Lithology	Texture	Alt 1	Alt 2	Weathering	Mineralization	Notes
2 - 10	544141	5697675	W. Bellhouse	MIV	Massive	Chl	Chl	Weathered	Py	Felsic to intermediate lithology. no mineralogy observed.
2 - 11	544212	5697763	W. Bellhouse	FIV	Massive	Chl	Chl	Weathered	Py	HIGH CLIFF, proceed with caution. no mineralization observed.
2 - 12	544196	5697768	W. Bellhouse	MIV	Massive	Chl	Chl	Weathered	Py	HIGH CLIFF, proceed with caution. no mineralization observed.
2 - 13	544085	5697928	W. Bellhouse	MIV	Massive	Chl	Chl	Weathered	Py	weakly sheared.
2 - 14	544080	5697957	W. Bellhouse	MIV	Massive	Chl	Chl	Weathered	Py	medium grained, massive texture. no mineralogy observed.
2 - 16	543792	5697975	W. Bellhouse	FIV	Shear	Chl	Chl	Weathered	Py	local linear rusting associated with shear. may indicate mineralization. sample not taken in-situ, but adjacent to outcrop.
2 - 20	543799	5697633	W. Bellhouse	MIV						no sample taken, <100m east of Swain claim."
2 - 21	544007	5697523	W. Bellhouse	FIV	Coarse	Chl	Chl	Weathered	Py	Medium to coarse grained, with minor pyrite mineralization.
2 - 22	542578	5697467	W. Bellhouse	MIV	Fine	Chl	Chl	Weathered	Py	fine-grained felsic volcanic rock with shearing.
2 - 24	542211	5698225	W. Bellhouse	MIV	Coarse	Chl	Chl	Weathered	Py	medium to coarse grained. massive.
2 - 25	542494	5698297	W. Bellhouse	MIV	Shear	Chl	Chl	Weathered	Py	fine grained, moderately sheared mafic volcanic rock. trace, fine grained, disseminated pyrite.
2 - 26	542619	5698372	W. Bellhouse	MIV	Massive	Chl	Chl	Weathered	Py	fine to medium grained, massive mafic volcanic rock with disseminated pyrite (<1%).
2 - 27	542679	5698485	W. Bellhouse	MIV	Massive	Chl	Chl	Weathered	Py	

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Waypoint ID	East (x)	North (y)	Collected By	Lithology	Texture	Alt 1	Alt 2	Weathering	Mineralization	Notes
2 - 28	542697	5698662	W. Bellhouse	MIV	Fine	Chl	Chl	Weathered	Py	fine grained mafic volcanic with weak to moderate silicification
2 - 29	542531	5698688	W. Bellhouse	MIV	Massive	Chl	Chl	Weathered	Py	fine grained, massive mafic volcanic rock.
2 - 3	544302	5696876	W. Bellhouse	MIV	Massive	Chl	Chl	Weathered	Py	fine grained, massive mafic volcanic rock with observed quartz vein.
2 - 30	542451	5698734	W. Bellhouse	MIV	Brecciated	Chl	Chl	Weathered	Py	no mineralization found.
2 - 31	542209	5698407	W. Bellhouse	FIV	Aphanitic	Chl	Chl	Weathered	Py	pillowed mafic volcanics. green chlorite rich selvages observed.
2 - 32	542187	5698686	W. Bellhouse	MIV	Fine	Chl	Chl	Weathered	Py	fine grained, tuffaceous felsic rock with quartz veining and fragmentation.
2 - 33	539115	5695771	W. Bellhouse	MIV	Fine	Chl	Chl	Weathered	Py	fine to medium grained mafic volcanic rock with weak shearing
2 - 34	536117	5694418	W. Bellhouse	MIV	Boudinage	Ser	Chl	Weathered	Py	slaty matrix, fine grained. foliated at 40 degrees. quartzite boudinage texture. chloritic alteration. minor quartz veining.
2 - 35	535914	5694305	W. Bellhouse	MIV	Massive	Sil	Chl	Weathered	Py	trace pyrite mineralization. highly weathered.
2 - 36	535875	5694244	W. Bellhouse	MIV	Fine	Chl	Chl	Weathered	Py	mafic volcanic, with foliations at 40 degrees. green grey.
2 - 37	535874	5694207	W. Bellhouse	MIV	Fine	Chl	Chl	Weathered	Py	mafic intermediate volcanic outcrop with mafic dike.
2 - 38	535933	5694216	W. Bellhouse	MIV	Fine	Sil	Chl	Weathered	Py	mafic intermediate volcanic outcrop with trace pyrite, and possibly galena
2 - 39	536020	5694233	W. Bellhouse	MI	Tuffaceous	Chl	Chl	Weathered	Py	tuffaceous, brecciated mafic volcanic.
2 - 4	543869	5697283	W. Bellhouse	MIV	Tuffaceous	Chl	Chl	Weathered	Py	Gabbro. minimal alteration. observed pyrite crystallization.
2 - 40	539490	5695915	W. Bellhouse	MIV	Massive	Chl	Chl	Weathered	Py	<1% fine grained disseminated py. no sample taken.
2 - 41	539602	5695977	W. Bellhouse	SED	Fine	Chl	Chl	Weathered	Py	slaty mafic volcanic outcrop

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Waypoint ID	East (x)	North (y)	Collected By	Lithology	Texture	Alt 1	Alt 2	Weathering	Mineralization	Notes
2 - 42	539706	5696291	W. Bellhouse	SED	Fine	Chl	Chl	Weathered	Py	chloritized slate. no mineralization observed.
2 - 43	537915	5695009	W. Bellhouse	FIV	Fine	Chl	Chl	Weathered	Py	chloritized slate. no mineralization observed.
2 - 44	537348	5694878	W. Bellhouse	MIV	Fine	Chl	Chl	Weathered	Py	fine grained, slaty felsic intermediate volcanic. high quartz content.
2 - 45	537353	5694939	W. Bellhouse	MIV	Fine	Chl	Chl	Weathered	Py	fine grained mafic volcanic. trace pyrite in and around quartz veins.
2 - 46	537340	5695015	W. Bellhouse	MIV	Fine	Sil	Chl	Weathered	Py	slaty mafic volcanic. minor quartz veining.
2 - 47	537389	5695123	W. Bellhouse	MIV	Fine	Sil	Chl	Weathered	Py	slaty to massive mafic volcanic. observed pyrite crystallization. large quartz vein visible from surface parallel to outcrop's shear.
2 - 48	537239	5695093	W. Bellhouse	MIV	Fine	Sil	Chl	Weathered	Py	mafic volcanics with minor quartz veining
2 - 49	538905	5695122	P. Johnson	MUDS	Fine	Chl	Chl	Weathered	Py	trace pyrite crystallization, low silica content.
2 - 5	544036	5697425	W. Bellhouse	FIV	Aphanitic	Ser	Sil	Transition	Py	for light pink grey shirred felsic rich rock. possible shear or 3-5mm bedded sed. No sulfides.
2 - 50	537997	5694997	P. Johnson	FIV	Brecciated	Chl	Chl	Weathered	Py	Mafic to Felsic brecciated volcanic lithology. quartz and tourmaline veining observed, associated with weak to moderate shears.
2 - 51	537787	5694942	P. Johnson	FIV	Shear	Ser	Chl	Fresh	Py	light pink grey sheared tonality rock.
2 - 52	537785	5694921	P. Johnson	FIV						non mineralized
2 - 53	537845	5694815	P. Johnson	FIV	Aphanitic	Chl	Chl	Fresh	Py	Fine-grained light pinkish white. non mineralized. high silica. could bedded quartzite
2 - 54	537836	5694741	P. Johnson	FIV	Aphanitic	Chl	Sil	Fresh	Py	Fine-grained light grey felsic Volcanic. Weak foliation. Non min.

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Waypoint ID	East (x)	North (y)	Collected By	Lithology	Texture	Alt 1	Alt 2	Weathering	Mineralization	Notes
2 - 55	537815	5694718	P. Johnson	FIV	Massive	Bio	Chl	Fresh	Py	Fine-grained light grey massive felsic volcanic.
2 - 56	537824	5694697	P. Johnson	FIV						non min. weak foliation at 55 deg tca
2 - 57	537812	5694568	P. Johnson	FIV	Aphanitic	Chl	Chl	Fresh	Py	Fine-grained light to med grey non min felsic volcanic. notably darker than to the north
2 - 58	537802	5694473	P. Johnson	FIV	Aphanitic	Chl	Chl	Fresh	Py	felsic to intermediate volcanic. trace pyrite locally.
2 - 59	537805	5694388	P. Johnson	QTZT	Aphanitic	Chl	Chl	Fresh	Py	fine-grained intermediate to felsic volcanic non mineralized weak FO
2 - 60	537856	5694355	P. Johnson	QTZT						
2 - 61	538141	5694156	W. Bellhouse	Overburden	Aphanitic	Chl	Sil	Fresh	Py	Fine-grained light to medium grey felsic volcanics. quartz and plag 2-3mm. non mineralized
2 - 62	538114	5694182	W. Bellhouse	SCH	Massive	Sil	Chl	Fresh	Py	fgr light grey felsic volcanic. non mineralized
2 - 63	539704	5696290	K. Pedersen	MIV	Aphanitic	Chl	Sil	Fresh	Py	Very fine-grained light green grey quartz rich sheared rock. possible old sed or tuff
2 - 64	539757	5696111	P. Johnson	MIV	Fine	Chl	Chl	Weathered	Py	strong albite alterations. out of Swain property boundary.
2 - 65	541898	5697018	K. Pedersen	MIV	Boudinage	Chl	Sil	Fresh	Py	Very fine-grained light grey strongly silica rich felsic rock. Thunder storms showed, didn't go further south
2 - 66	542245	5697018	K. Pedersen	FIV	Aphanitic	Chl	Chl	Fresh	Py	swamp and overburden
2 - 7	544020	5697545	W. Bellhouse	FIV	Shear	Chl	Chl	Weathered	Py	fine grained, highly sheared volcanic rock. high in sericite. no mineralization observed.
2 - 8	544025	5697597	W. Bellhouse	FIV	Aphanitic	Chl	Bio	Fresh	Py	Fine-grained moderately sheared mafic volcanic with 1% fine-grained disseminated and vuggy associated pyrite



Waypoint ID	East (x)	North (y)	Collected By	Lithology	Texture	Alt 1	Alt 2	Weathering	Mineralization	Notes
2 - 9	544038	5697635	W. Bellhouse	FIV	Aphanitic	Chl	Sil	Fresh	None	Fine-grained grey sheared mafic volcanic. buggy at surface not evident on fresh faces
4 - 10	536208	5693969	W. Bellhouse	FIV						non min. weak to moderate foliation runs 55 deg dips 75-80 degrees
4 - 11	540886	5699721	P. Johnson	Overburden	Aphanitic	Ser	Chl	Fresh	None	Fine-grained light grey felsic rock. non mineralized
4 - 12	541372	5699652	P. Johnson	Overburden	Tuffaceous	Chl	Chl	Weathered	Py	no mineralization observed. Tuffaceous brecciated texture.
4 - 15	540529	5685124	K Pedersen	SED	Shear	Chl	Chl	Weathered	Py	weakly sheared.
4 - 17	540457	5685062	K Pedersen	MI	Aphanitic	Chl	Chl	Fresh	Py	Amphibole
4 - 18	540441	5685048	K Pedersen	MI	Tuffaceous	Chl	Chl	Weathered	Py	Tuffaceous massive texture.
4 - 19	540431	5685048	K Pedersen	SED	Shear	Chl	Chl	Weathered	Py	Green-grey
4 - 2	539702	5695635	W. Bellhouse	FIV						
4 - 4	539111	5695775	P. Johnson	BX	Aphanitic	Chl	Chl	Fresh	Py	
4 - 5	539122	5695773	P. Johnson	BX	Aphanitic	Chl	Chl	Fresh	Py	no outcrop
4 - 6	536199	5694867	W. Bellhouse	MIV	Clastic	Sil	Chl	Fresh	Py	light brown felsic rich sed. Rich in 32-mm feldspar and quartz
4 - 7	536445	5694705	W. Bellhouse	MIV	Fine	Chl	Sil	Fresh	Py	Fine-grained dark grey mafic volcanic with 2-mm feldspar laths. Massive.
4 - 8	536453	5694603	W. Bellhouse	MIV	Aphanitic	Chl	Chl	Fresh	Py	Fine-grained green dark grey mafic intrusive
4 - 9	536204	5694001	W. Bellhouse	FIV	Aphanitic	Chl	Sil	Fresh	Py	Fine-grained green grey matrix supported sandstone and lesser conglomerate (felsic clasts 2 cm)

Table 16-2: Swain structure data

East (x)	North (y)	Structure	Strike	Dip	Structure 2	Strike 2	Dip 2
544302	5696874	Shear	332	N/A	Jointing	276	
543868	5697281	Contact	304	76	Shear	300	
544032	5697417	Veining	300	N/A	Shear	300	
544022	5697544	Shear	274	N/A	Breccia		



East (x)	North (y)	Structure	Strike	Dip	Structure 2	Strike 2	Dip 2
544084	5697921	Shear	280	N/A	Shear	280	
544052	5697990	Veining	264	40	Veining		
543760	5697829	Shear	282	N/A	Foliation		
543604	5697743	Shear	277	78	Shear		
543577	5697673	Shear	262	N/A	Shear		
543598	5697654	Shear	315	N/A	Shear		
544008	5697524	Shear	278	N/A	Shear		
542209	5698223	Shear	284	82	Shear		
542683	5698485	Foliation	22	N/A	Bedding		
542529	5698685	Veining	194	N/A	Veining		
539119	5695771	Veining	40	N/A	Veining		
535876	5694251	Lineation	350	N/A	Lineation		
535933	5694214	Foliation	350	N/A	Breccia		
536090	5694245	Veining	70	N/A	Veining		
539606	5695982	Foliation	228	79	Foliation		
539706	5696293	Foliation	153	75	Foliation		
537368	5694939	Shear	20	70	Shear		
537356	5695027	Veining	235	N/A	Shear	235	73
537388	5695118	Shear	235	59	Shear		
538905	5695122	Shear	235	90	Bedding		
537781	5694922	Shear	60	80	Shear		
537805	5694466	Bedding	40	N/A	Foliation		
538115	5694190	Shear	48	N/A	Bedding		
539758	5696111	Foliation	60	80	Bedding		
539707	5695636	Shear	44	74	Bedding		
539110	5695776	Veining	355	N/A	Breccia	62	
536202	5694869	Shear	43	70	Bedding		
536451	5694602	Shear	54	85	Bedding		

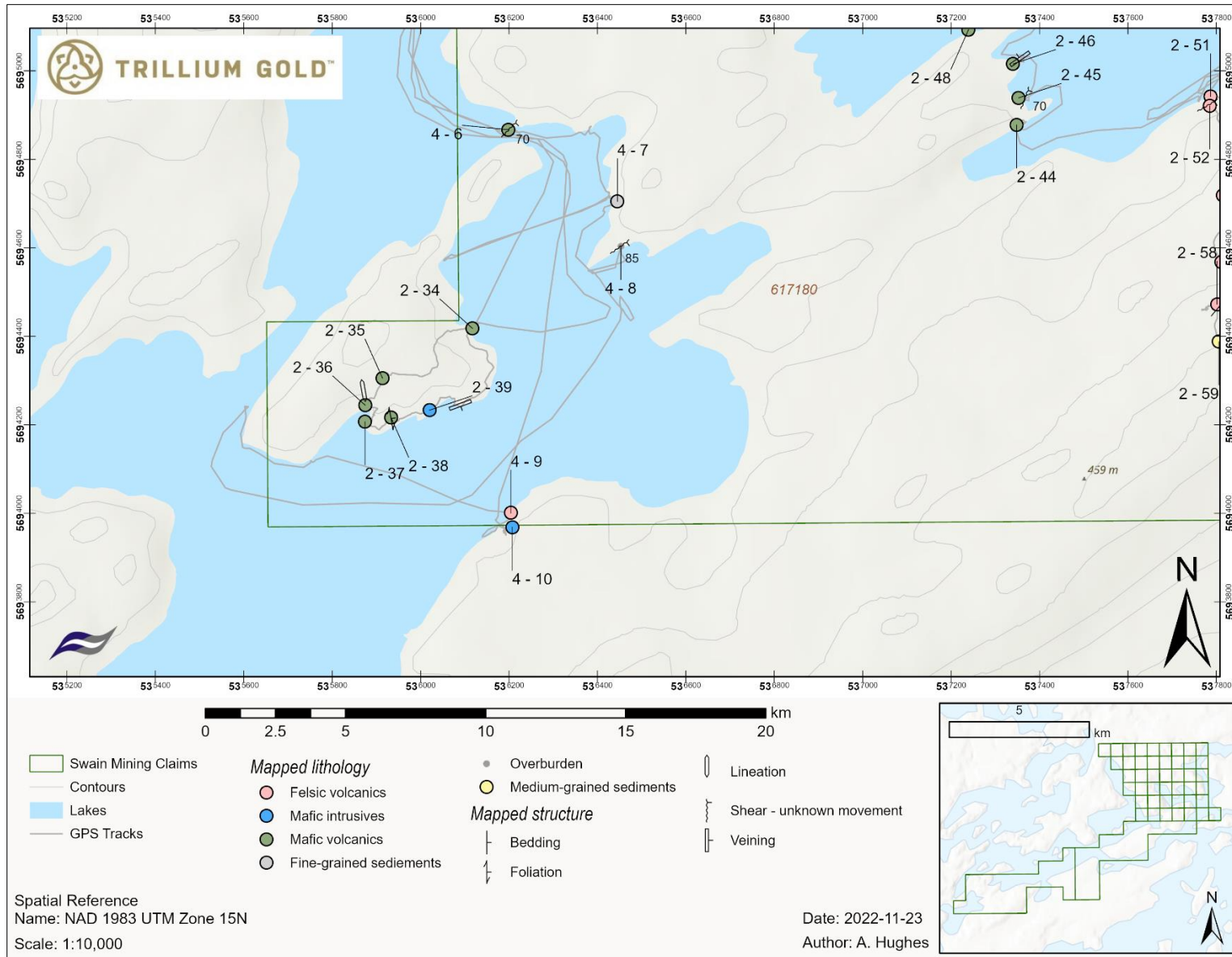


Figure 8: Swain lithology and structure mapping. 1 of 7

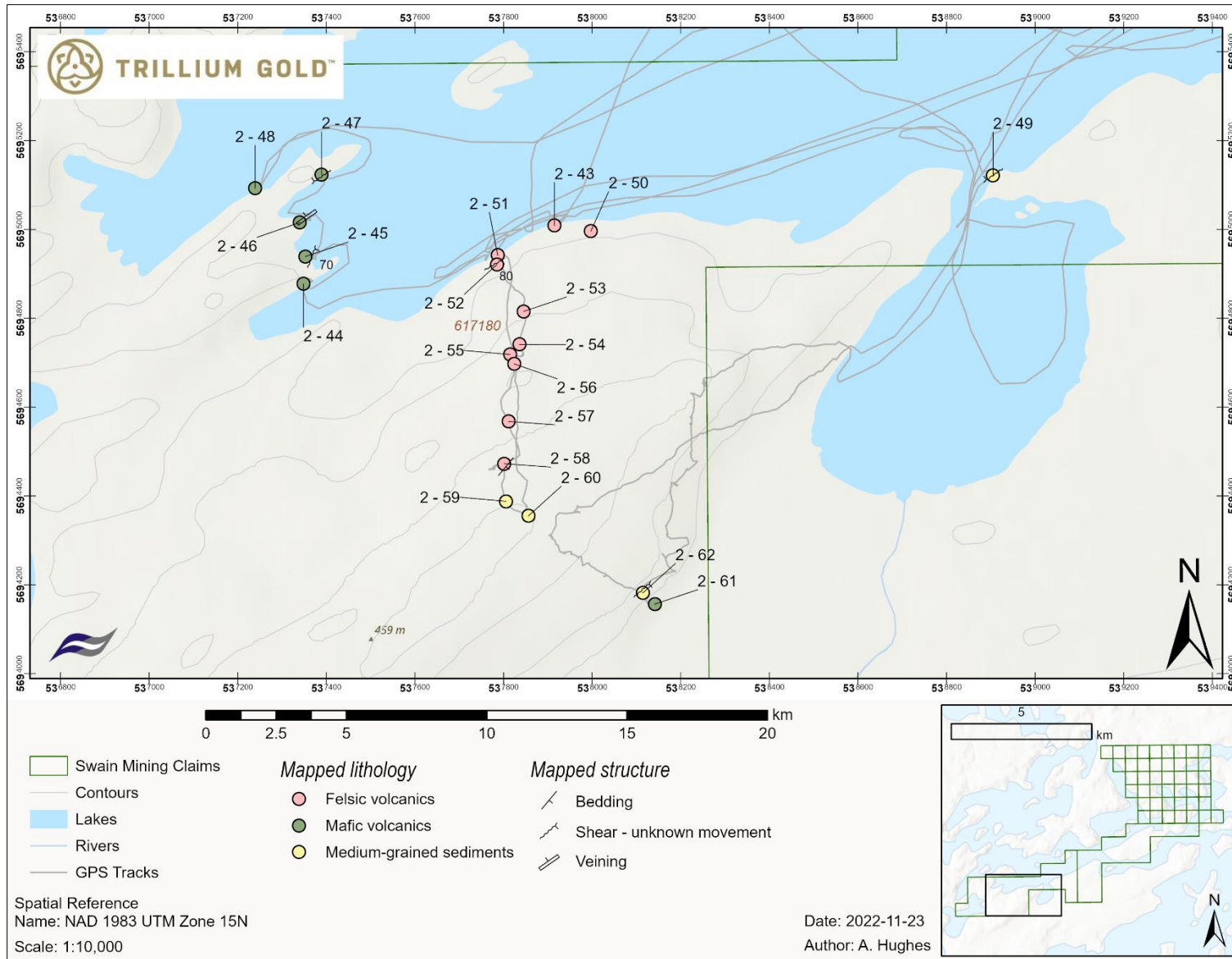


Figure 9: Swain lithology and structure mapping. 2 of 7

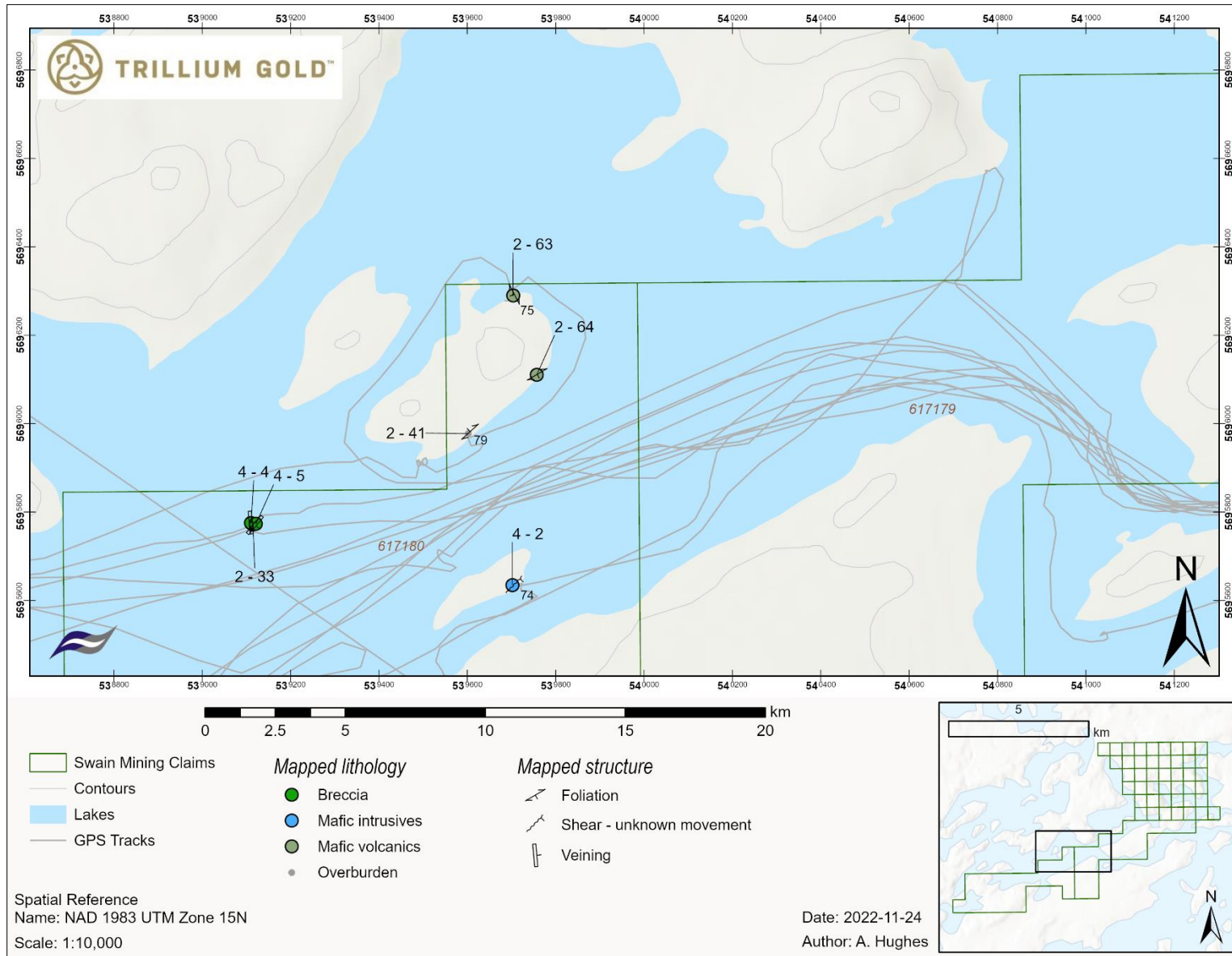


Figure 10: Swain lithology and structure mapping. 3 of 7

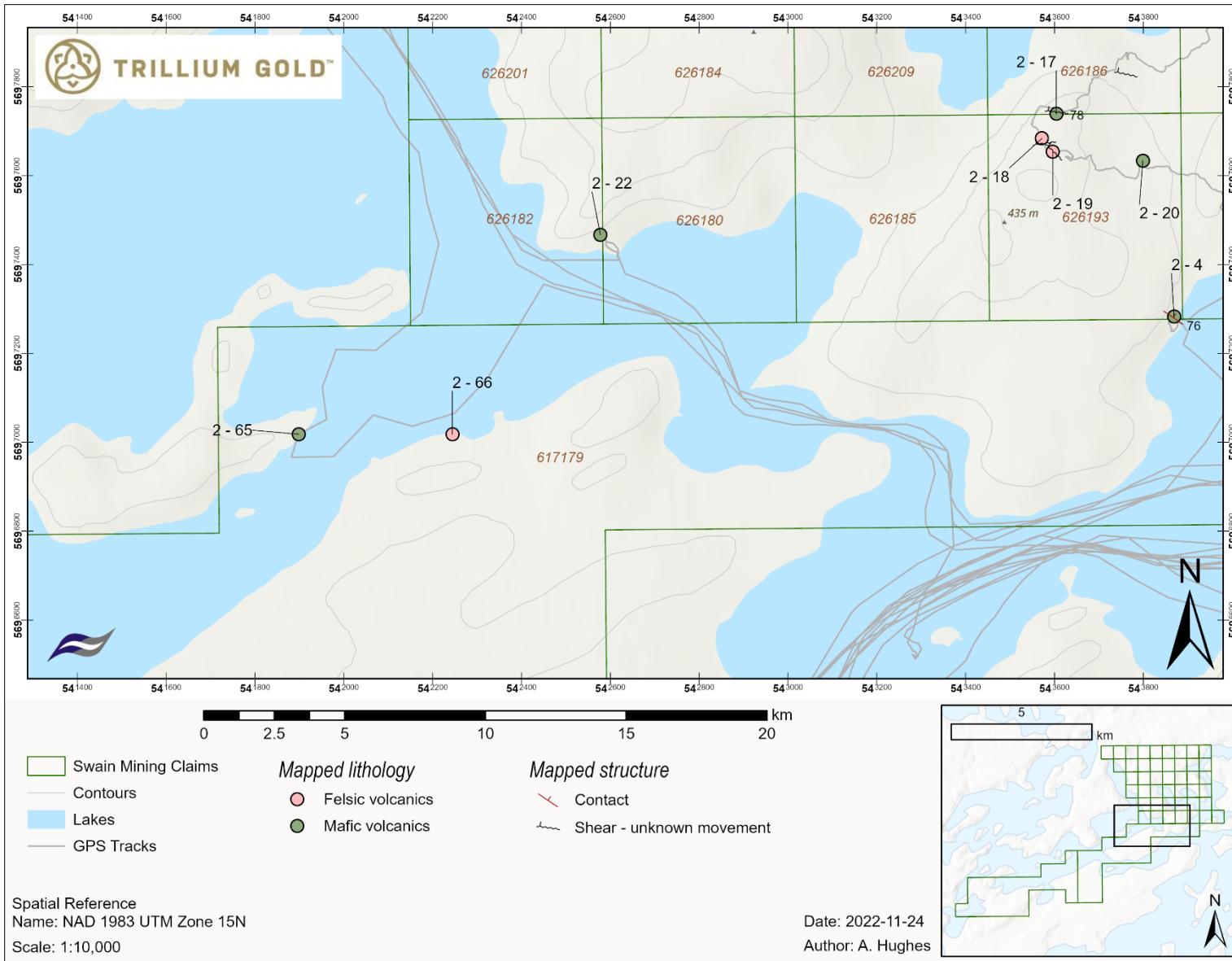


Figure 11: Swain lithology and structure mapping. 4 of 7

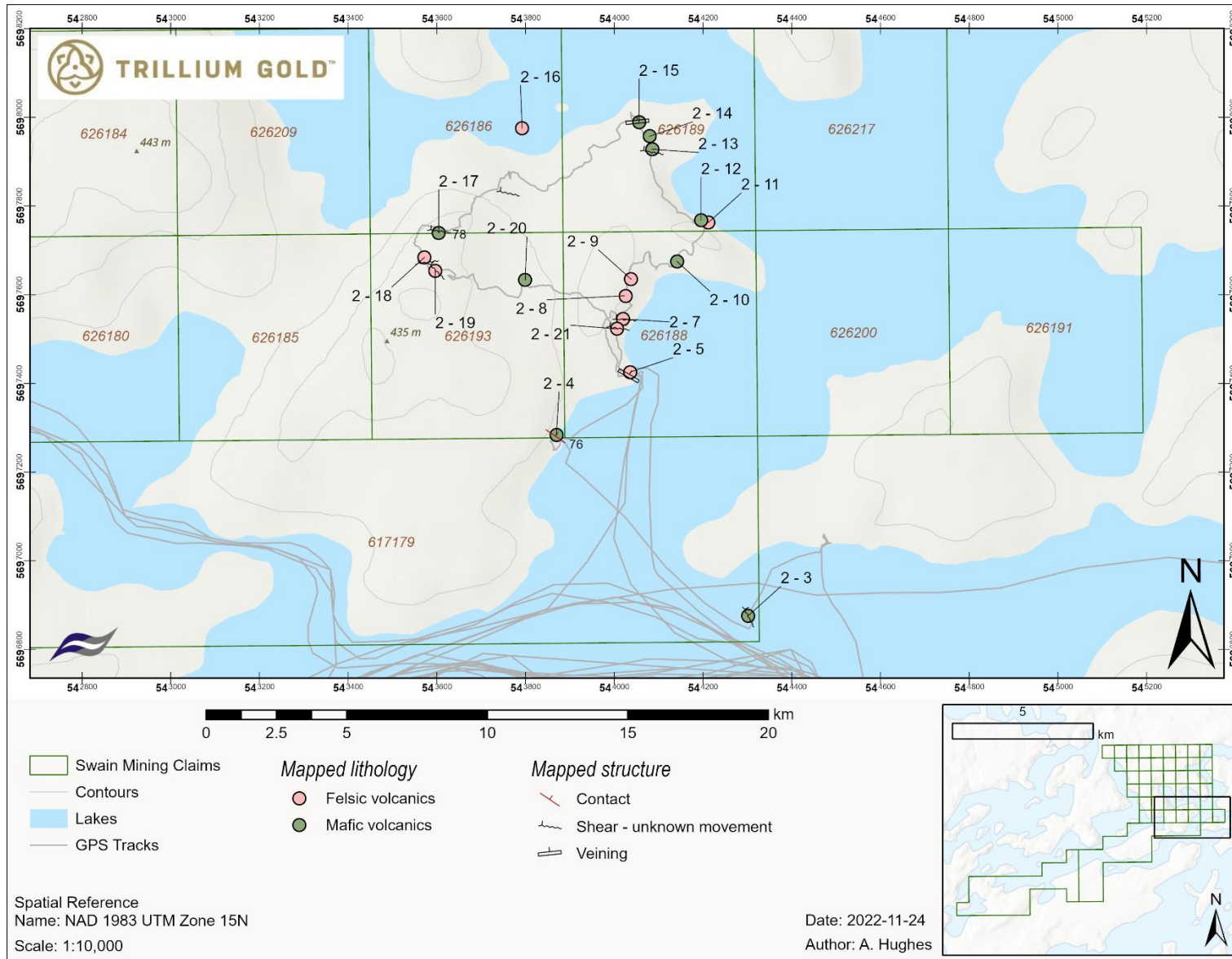


Figure 12: Swain lithology and structure mapping. 5 of 7

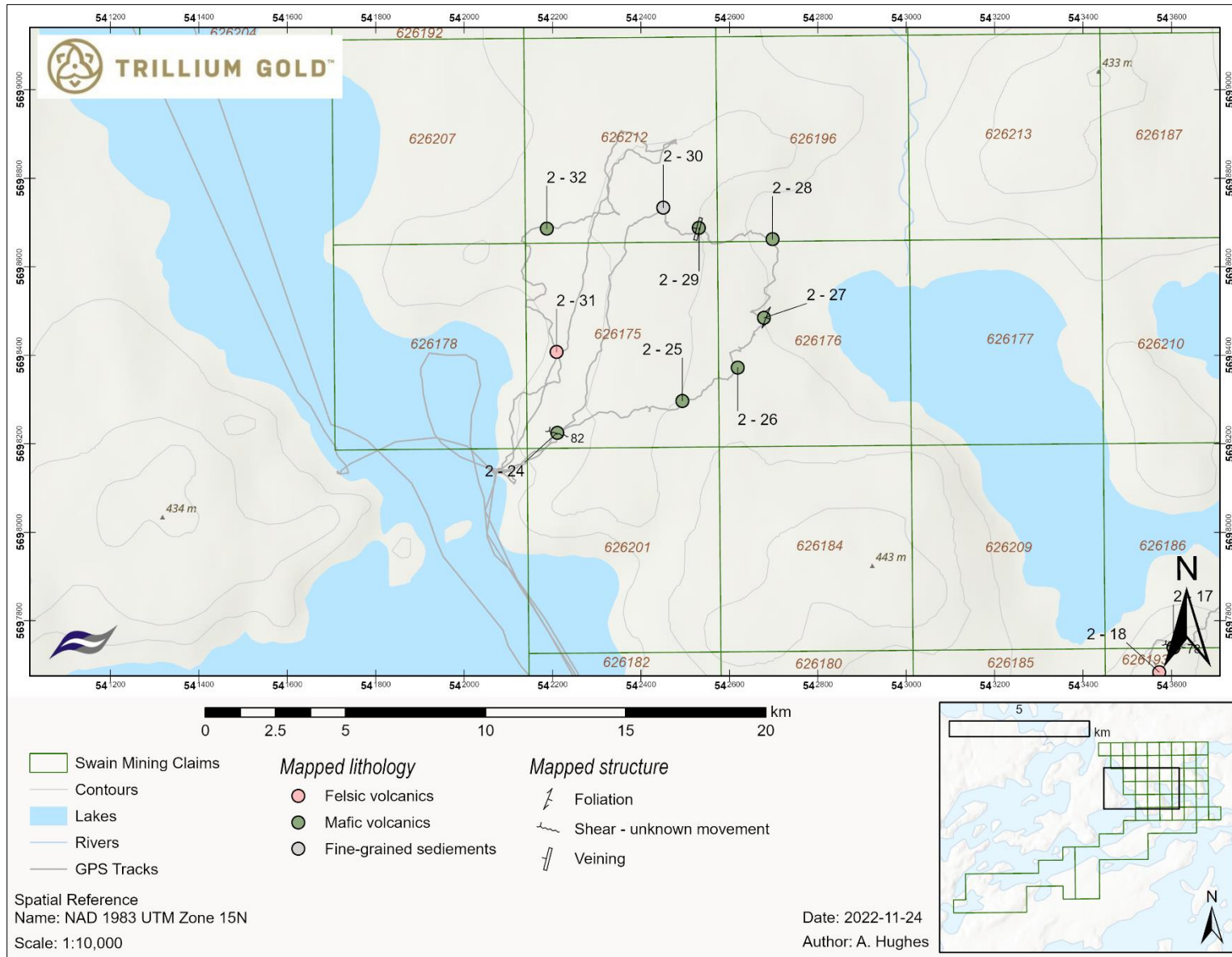


Figure 13: Swain lithology and structure mapping. 6 of 7

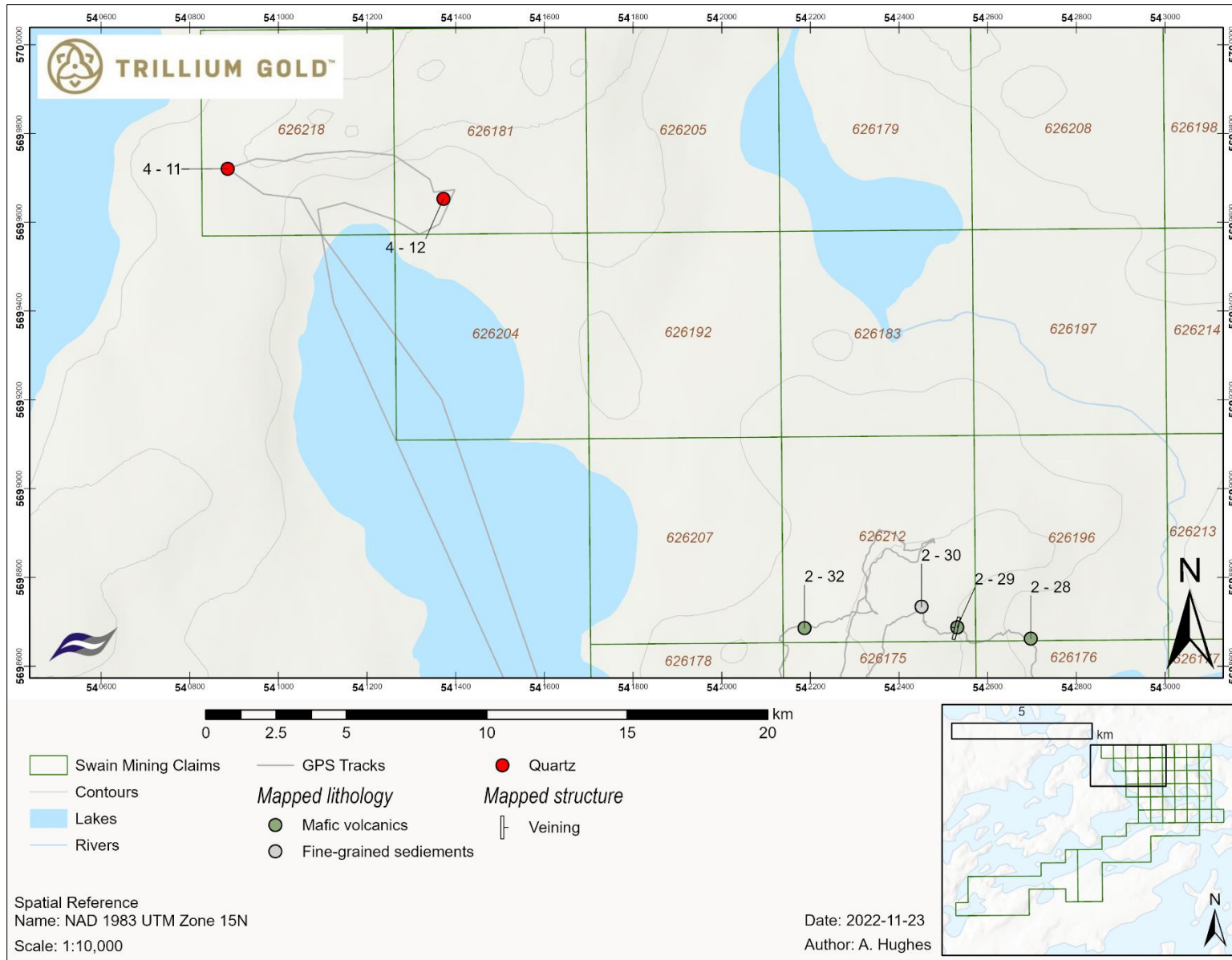


Figure 14: Swain lithology and structure mapping. 7 of 7



17 Appendix II – Grab Sample Data and Maps

Table 17-1: Swain prospecting grab sample data

Sample ID	East (x)	North (y)	Rock Type	Texture	Mineralogy / Notes	Au g/mt (FA-AA)	Au ppb (INAA)
1309201	543869	5697281	Felsic volcanics	Shear	weak to moderate shear. no minerology observed.	0.008	< 5
1309202	544055	5697988	Mafic volcanics	Aphanitic	sampled in small pieces.	0.006	< 5
1309203	543763	5697876	Felsic volcanics	Banding	pervasive albite alteration with iron rusting along shear planes.	< 0.005	< 5
1309204	543573	5697668	Felsic volcanics	Fine		< 0.005	< 5
1309205	542209	5698222	Felsic volcanics	Shear		< 0.005	< 5
1309206	542455	5698739	Pillowed mafic volcanics	Shear		0.008	8
1309207	542208	5698402	Felsic volcanics	Fine		< 0.005	< 5
1309208	536112	5694424	Mafic volcanics	Massive		0.097	71
1309209	535878	5694207	Mafic volcanics	Fine		0.007	< 5
1309210	535932	5694212	Mafic intrusive	Brecciated		< 0.005	< 5
1309211	537351	5694878	Mafic volcanics	Fine		< 0.005	< 5
1309212	537341	5695016	Mafic volcanics	Fine	trace pyrite observed, with iron staining.	4.91	4490
1309213	537340	5695011	Quartz	Massive		0.006	< 5
1309214	536200	5694868	Quartz	Aphanitic	quartz vein	< 0.005	< 5
1309215	536440	5694699	Pillowed mafic volcanics	Clastic		< 0.005	< 5
1309217	537802	5694394	Quartz	Aphanitic	quartz rich rock		< 5
1309253	539117	5695777	Breccia	Aphanitic	Brecciated vein	< 0.005	< 5
1309452	536207	5693969	Mafic volcanics	Fine	no mineralization		< 5
1309453	536189	5693968	Felsic volcanics	Fine	quartz veins minor		< 5
1309454	538902	5695116	Fine-grained sediments	Aphanitic			5



Sample ID	East (x)	North (y)	Rock Type	Texture	Mineralogy / Notes	Au g/mt (FA-AA)	Au ppb (INAA)
1309455	537814	5694563	Felsic volcanics	Aphanitic			< 5
1309461	538031	5694228	Felsic intrusive	Shear	Fine-grained felsic sheer or banded muds. non min	< 0.005	< 5
1309462	539693	5695534	Felsic volcanics	Aphanitic	Fine-grained light grey intermediate volcanic	< 0.005	< 5
1309463	539707	5696290	Mafic volcanics	Aphanitic		< 0.005	< 5
1309464	539708	5696294	Amphibole	Boudinage	strongly sheared felsic volcanic. trace fine-grained diss pyrite at shore	0.005	< 5
	539118	5695770	Amphibole	Aphanitic	Very fine-grained mafic volcanic 1 % pyrite		
1309216	537792	5694940	Felsic volcanics	Fine	Fine-grained late white quartz vein running as 35 dipping 70		342
1309218	537848	5694358	Quartz	Massive			< 5
1309456	538258	5694654	Amphibole	Aphanitic			< 5
1309457	538260	5694652	Felsic intrusives	Aphanitic			< 5
1309458	538216	5694580	Felsic intrusives	Aphanitic			17
1309459	538100	5694197	AMPH	Aphanitic	light pink grey felsic sericite rich rock. rich in rusty unknown sulfides 2%		< 5
1309460	538116	5694183	Schist	Aphanitic	Fine-grained light white grey silica rich rock.		< 5
1309466	542348	5697070	Quartz	Coarse	Very fine-grained grey sheared rock		< 5
1309465	542344	5697070	Mafic volcanics	Massive	Fine-grained light grey highly sheared felsic rich rock		< 5
1309467	542345	5697062	Felsic volcanics	Fine			< 5

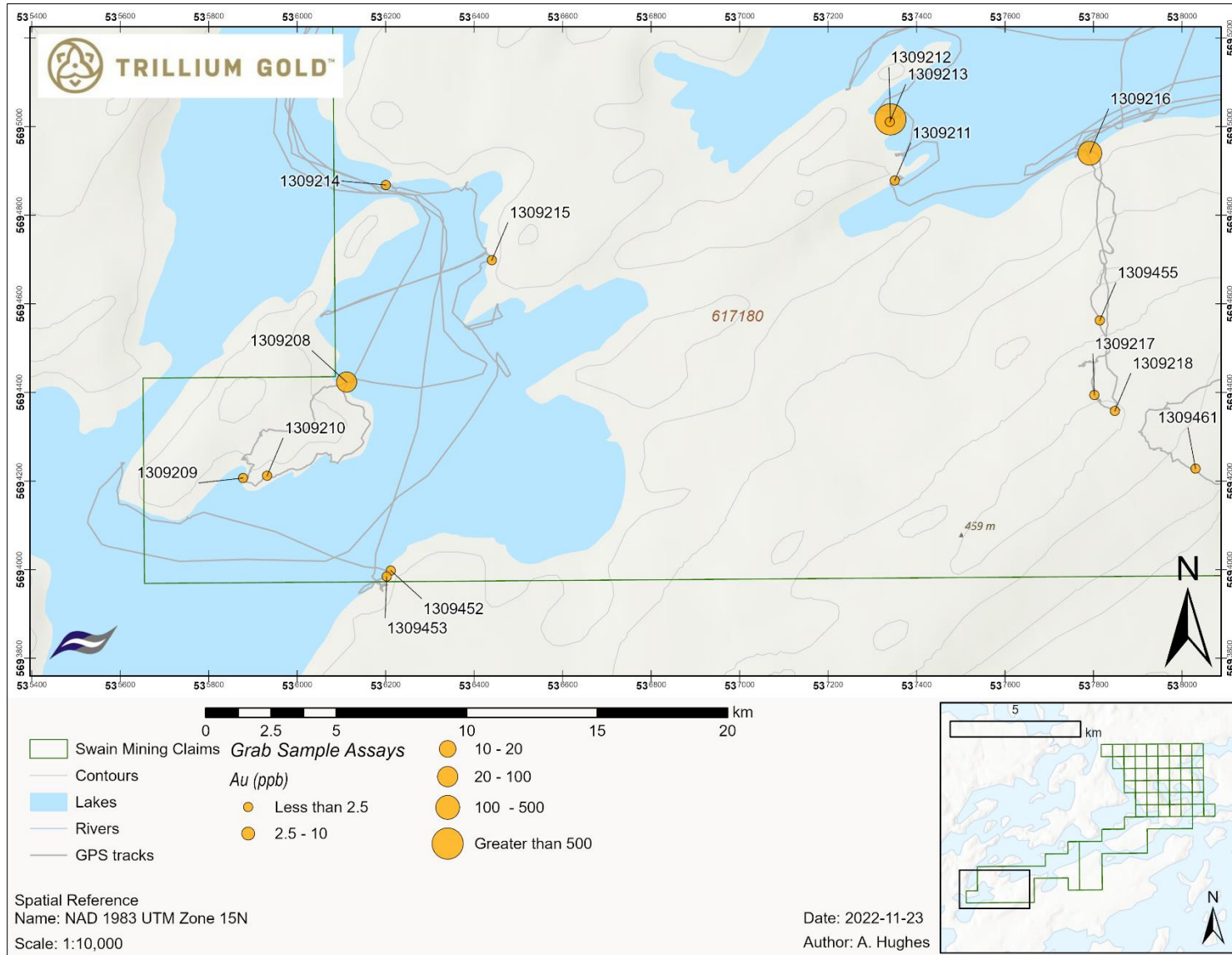


Figure 15: Swain 2022 grab sample locations displaying Au results in ppb. 1 of 5

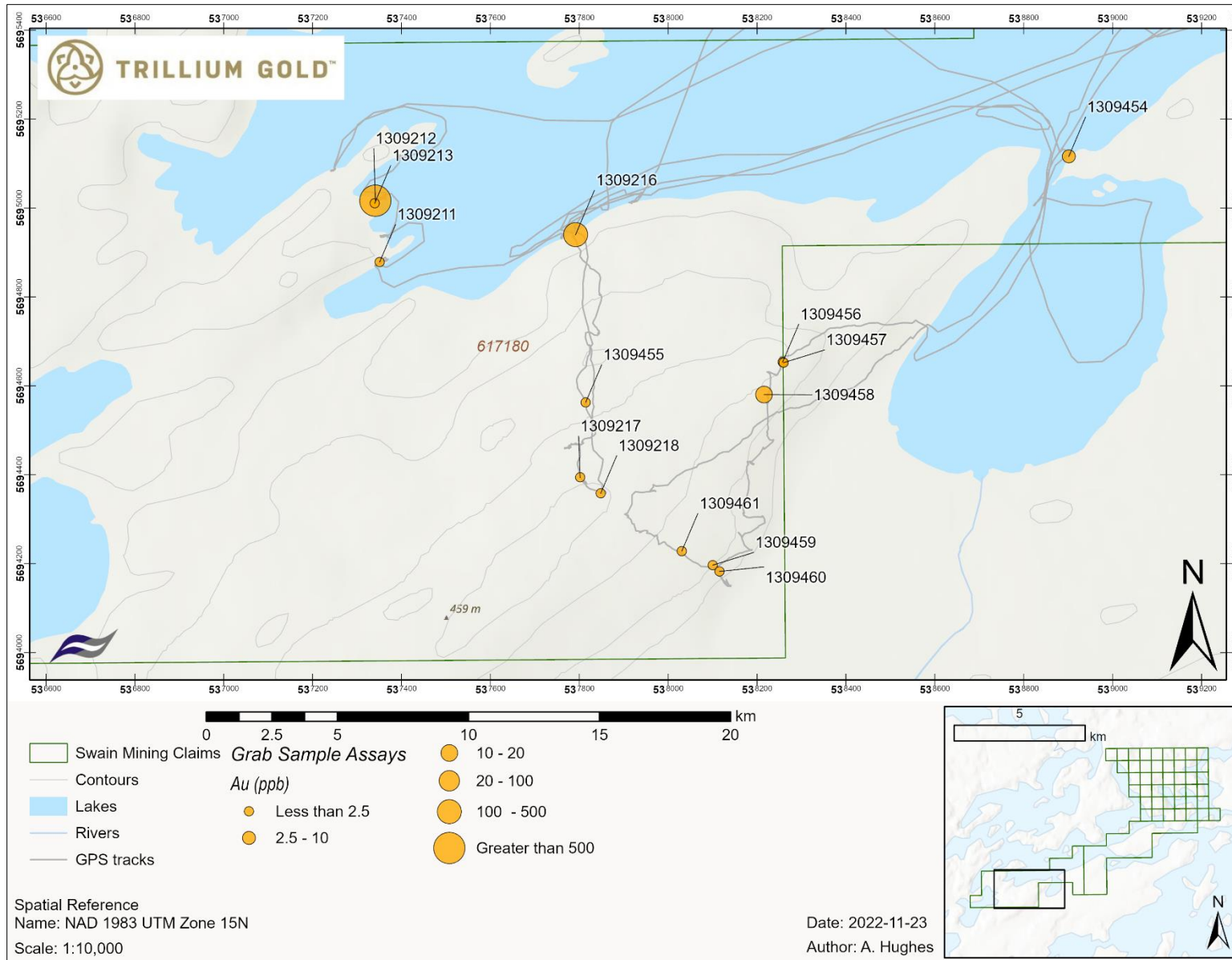


Figure 16: Swain 2022 grab sample locations displaying Au results in g/mt. 2 of 5

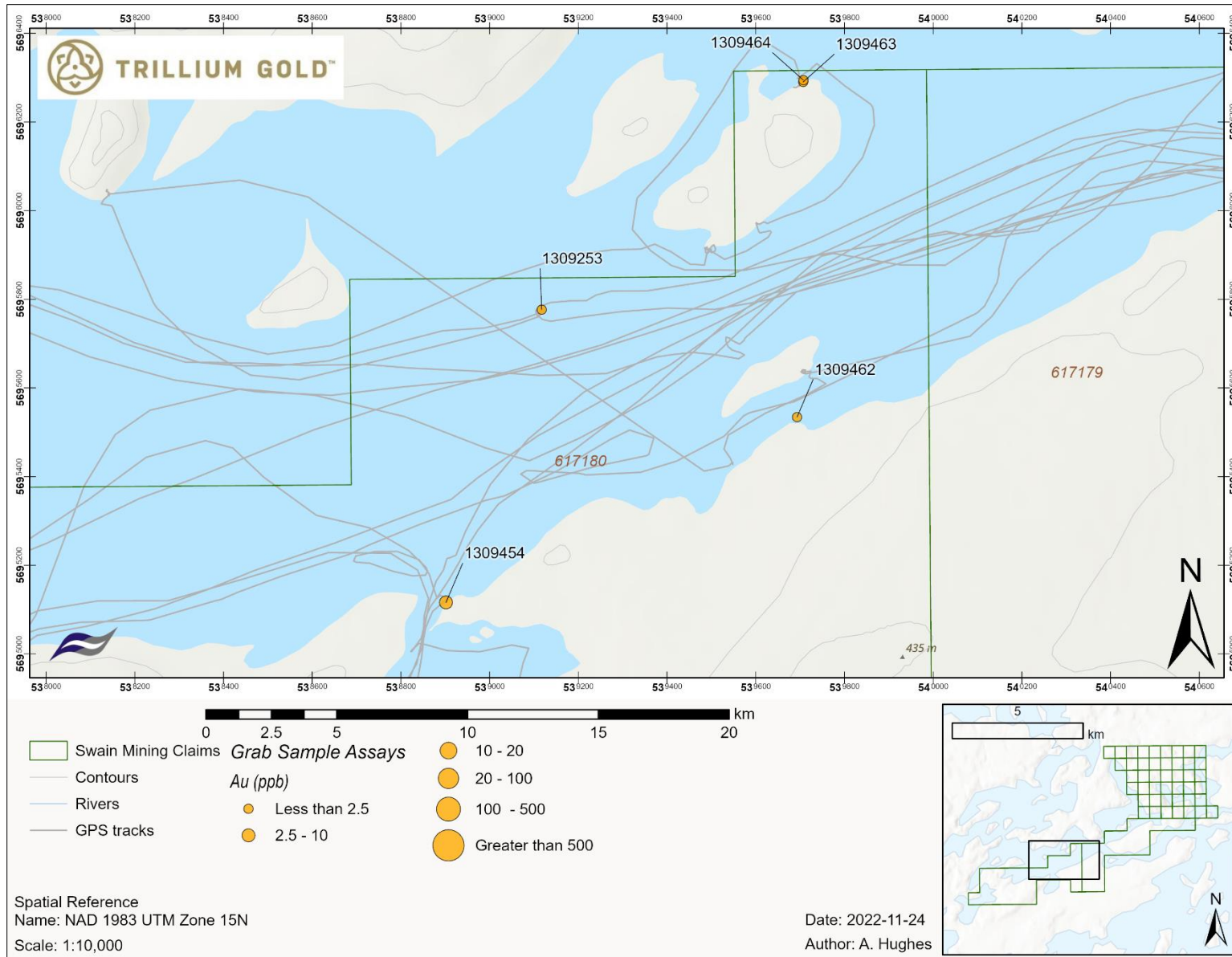


Figure 17: Swain 2022 grab sample locations displaying Au results in g/mt. 3 of 5

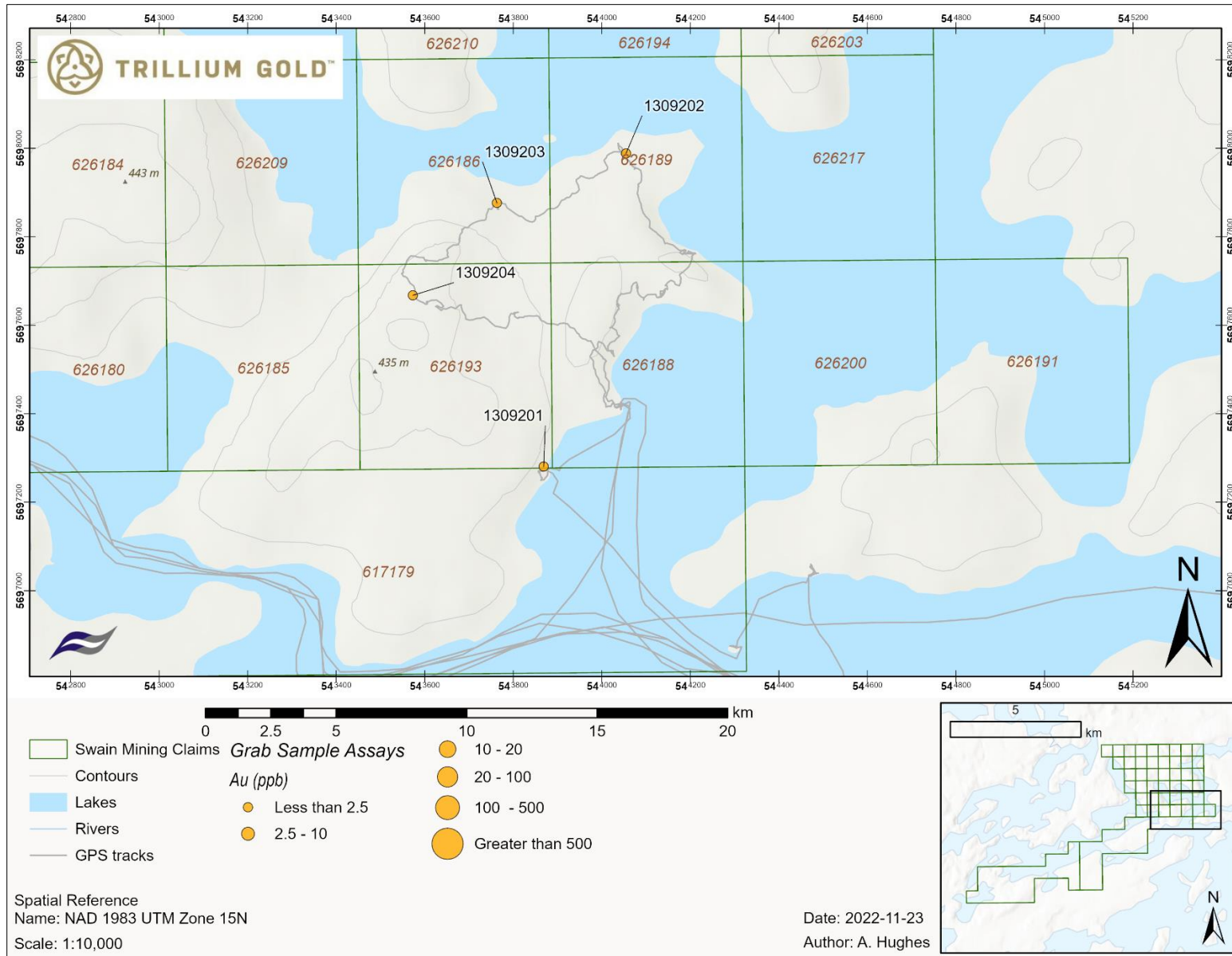


Figure 18: Swain 2022 grab sample locations displaying Au results in g/mt. 4 of 5

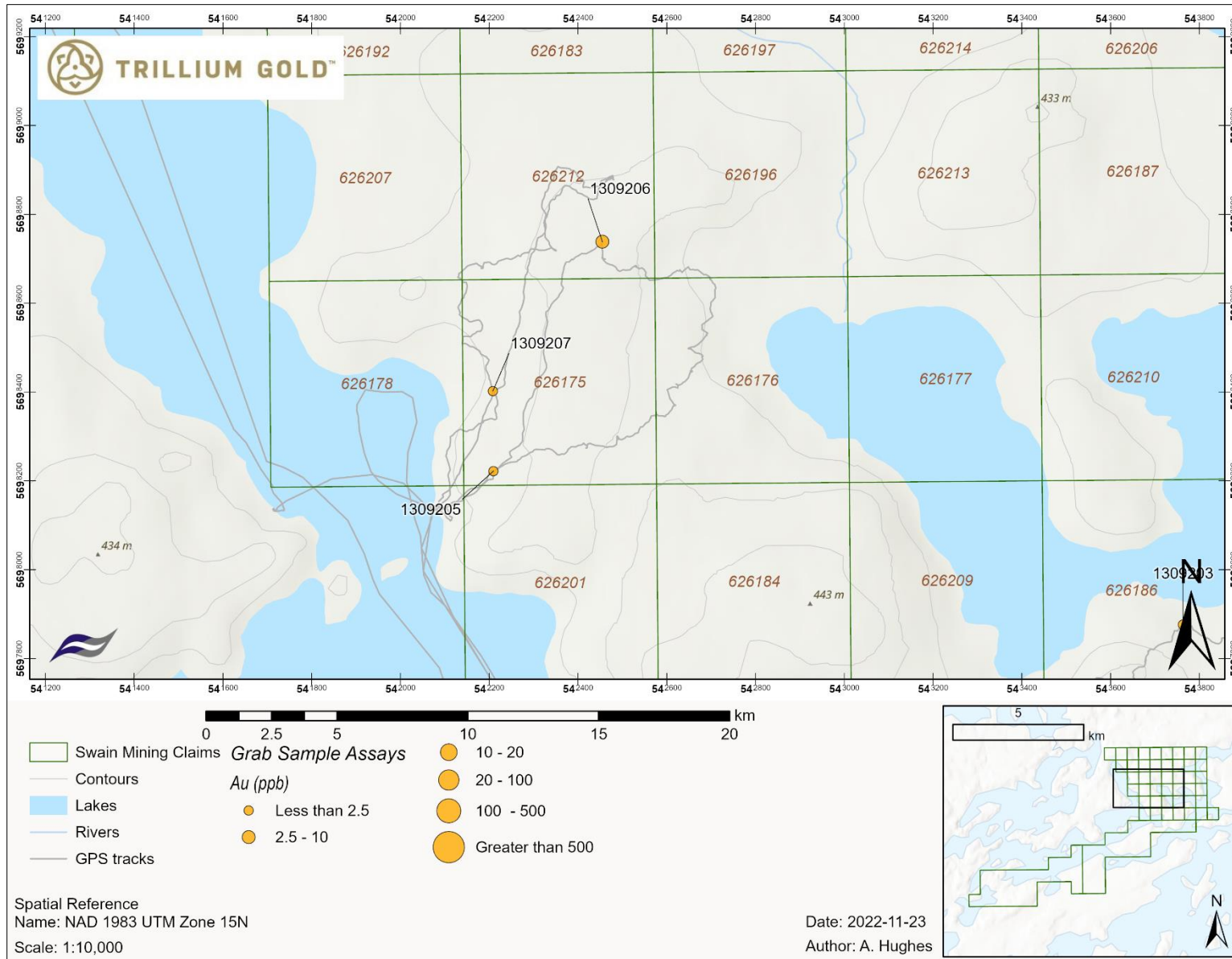


Figure 19: Swain 2022 grab sample locations displaying Au results in g/mt. 5 of 5



18 Appendix III – Assay Certificate

See attached document(s).



Report No.: A22-12418-Au
 Report Date: 28-Sep-22
 Date Submitted: 30-Aug-22
 Your Reference: BU-Swain

Trillium Gold Mines Inc.
 1055 West Hastings Street, Suite 2250
 Vancouver BC V6E 2E9
 Canada

ATTN: William Paterson

CERTIFICATE OF ANALYSIS

13 Rock samples were submitted for analysis.

The following analytical package(s) were requested:		Testing Date:
1A2B-50-(g/m t)-Dryden	QOP AA-Au (Au - Fire Assay AA)	2022-09-27 22:33:58
Weight Report in Kg-Dryden	Received and Pulp Weights-Dryden	2022-09-15 08:51:12

REPORT **A22-12418-Au**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3



ACTIVATION LABORATORIES LTD.
 264 Government Road, Dryden, Ontario, Canada, P8N 2R3
 TELEPHONE +807 223-6168 or +1.888.228.5227 FAX +1.905.648.9613
 E-MAIL Dryden@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

CERTIFIED BY:

Mark Vandergeest
 Quality Control Coordinator

Analyte Symbol	Received Weight	Au	Au
Unit Symbol	Kg	g/mt	
Detection Limit		0.005	
Analysis Method	none	FA-AA	FA-GRA
1309201	0.778	0.008	
1309202	0.262	0.006	
1309203	0.926	< 0.005	
1309204	1.04	< 0.005	
1309205	0.862	< 0.005	
1309206	0.652	0.008	
1309207	0.678	< 0.005	
1309208	1.02	0.097	
1309209	1.06	0.007	
1309210	0.936	< 0.005	
1309211	2.74	< 0.005	
1309212	2.09	4.91	
1309213	1.13	0.006	

Analyte Symbol	Received Weight	Au	Au
Unit Symbol	Kg	g/mt	
Detection Limit		0.005	
Analysis Method	none	FA-AA	FA-GRA
Oreas E1336 (Fire Assay) Meas		0.505	
OREAS L15 Meas		7.13	
1309205 Dup		< 0.005	
Method Blank		< 0.005	



Report No.: A22-12418-4E
Report Date: 17-Nov-22
Date Submitted: 30-Aug-22
Your Reference: BU-Swain

Trillium Gold Mines Inc.
1055 West Hastings Street, Suite 2250
Vancouver BC V6E 2E9
Canada

ATTN: William Paterson

CERTIFICATE OF ANALYSIS

13 Rock samples were submitted for analysis.

Table with 3 columns: The following analytical package(s) were requested:, Testing Date:, and sample details (1A2B-50-(g/m t)-Dryden, QOP AA-Au (Au - Fire Assay AA), Weight Report in Kg-Dryden, Received and Pulp Weights-Dryden)

REPORT A22-12418-4E

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3



ACTIVATION LABORATORIES LTD.
264 Government Road, Dryden, Ontario, Canada, P8N 2R3
TELEPHONE +807 223-6168 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Dryden@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

CERTIFIED BY:

Handwritten signature of Mark Vandergeest

Mark Vandergeest
Quality Control Coordinator

Results

Activation Laboratories Ltd.

Report: A22-12418

Analyte Symbol	SiO2	TiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	K2O	Na2O	P2O5	LOI	Total	S	Ba	Rb	Sr	Cs	Ga	Ta	Nb	Hf	Zr	Y
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.01	0.005	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.001	3	2	2	0.5	5	1	1	0.5	2	1
Analysis Method	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	GRAV	FUS-ICP	TD-ICP	MULT INAA/FUSICP	PPXRF	FUS-ICP	INAA	PPXRF	INAA	PPXRF	INAA	FUS-ICP	FUS-ICP
1309201	49.30	0.966	22.08	9.38	0.07	4.87	1.11	3.65	3.52	0.25	4.22	99.42	0.052	836	74	183	2.5	23	< 1	8	4.0	190	17
1309202	96.00	0.028	0.90	0.89	0.03	0.13	0.10	0.12	0.20	< 0.01	0.86	99.24	0.006	52	< 2	52	< 0.5	< 5	< 1	< 1	< 0.5	16	< 1
1309203	70.60	0.362	16.97	1.20	< 0.01	0.64	1.02	3.49	3.10	0.06	1.78	99.24	0.030	655	64	355	1.1	15	< 1	2	3.1	106	1
1309204	57.51	0.470	14.30	10.65	0.10	3.86	3.23	0.79	2.18	0.14	5.65	98.88	0.032	196	12	224	< 0.5	13	< 1	4	2.5	103	8
1309205	69.36	0.391	13.69	3.88	0.05	1.58	2.04	1.40	2.90	0.09	3.73	99.10	0.003	375	29	367	0.7	10	< 1	3	2.2	89	4
1309206	50.52	1.310	15.55	16.22	0.13	4.79	1.53	1.28	1.27	0.26	5.22	98.08	0.061	274	31	108	1.6	18	< 1	10	2.9	121	19
1309207	65.53	0.500	16.05	3.72	0.04	2.12	2.47	1.50	4.72	0.16	2.05	98.84	0.027	468	25	707	< 0.5	12	< 1	4	2.9	112	7
1309208	56.10	0.578	14.43	5.65	0.09	4.16	6.34	0.64	4.75	0.28	6.06	99.09	0.370	290	11	316	< 0.5	14	< 1	8	3.6	136	12
1309209	47.66	1.086	16.16	12.90	0.22	4.51	9.13	0.18	2.65	0.08	3.92	98.50	0.145	86	< 2	198	< 0.5	14	< 1	7	1.8	69	22
1309210	61.75	0.470	15.59	4.63	0.06	3.82	2.18	1.92	4.49	0.18	3.18	98.28	0.018	942	25	278	< 0.5	14	< 1	7	3.3	116	9
1309211	48.37	0.882	16.30	11.89	0.17	5.75	9.43	0.02	2.33	0.06	3.96	99.15	0.143	24	< 2	376	< 0.5	10	< 1	6	1.4	54	18
1309212	53.02	0.796	14.58	12.75	0.14	4.77	5.82	0.85	2.07	0.06	4.28	99.15	0.860	305	12	129	< 0.5	13	< 1	5	0.5	46	13
1309213	97.04	0.005	0.11	0.60	0.01	0.04	0.49	< 0.01	0.02	< 0.01	0.52	98.83	0.004	4	< 2	7	< 0.5	< 5	< 1	< 1	< 0.5	2	< 1

Analyte Symbol	Th	U	Cr	Ni	Co	Sc	V	Cu	Pb	Zn	Bi	Cd	Sn	W	Mo	Be	Ag	Au	As	Se	Sb	Br	La
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.5	0.5	1	1	1	0.1	5	1	5	1	2	0.5	5	3	2	1	0.5	5	2	3	0.2	1	0.2
Analysis Method	INAA	INAA	INAA	TD-ICP	INAA	INAA	FUS-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	PPXRF	INAA	TD-ICP	FUS-ICP	MULT INAA / TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
1309201	3.0	< 0.5	150	179	36	21.4	165	45	< 5	223	< 2	< 0.5	< 5	< 3	< 2	1	< 0.5	< 5	12	< 3	0.2	< 1	20.0
1309202	< 0.5	< 0.5	9	2	1	0.6	5	9	< 5	6	< 2	< 0.5	< 5	< 3	< 2	< 1	< 0.5	< 5	5	< 3	0.2	< 1	2.3
1309203	1.7	< 0.5	16	6	< 1	3.6	40	1	< 5	8	< 2	< 0.5	< 5	< 3	< 2	< 1	< 0.5	< 5	4	< 3	< 0.2	< 1	7.1
1309204	1.8	< 0.5	86	114	24	12.4	95	20	< 5	118	< 2	< 0.5	< 5	< 3	< 2	< 1	< 0.5	< 5	3	< 3	0.3	< 1	15.8
1309205	2.1	0.7	89	60	15	5.1	52	11	< 5	67	< 2	< 0.5	< 5	< 3	< 2	< 1	< 0.5	< 5	3	< 3	0.6	< 1	13.4
1309206	2.3	< 0.5	74	66	35	20.5	192	45	7	274	< 2	< 0.5	< 5	< 3	< 2	< 1	< 0.5	8	18	< 3	0.8	< 1	16.4
1309207	3.1	< 0.5	59	38	11	6.9	68	48	< 5	64	< 2	< 0.5	< 5	< 3	< 2	< 1	< 0.5	< 5	11	< 3	0.8	< 1	18.8
1309208	8.1	2.5	114	65	23	11.4	107	29	12	83	< 2	< 0.5	< 5	< 3	< 2	1	< 0.5	71	< 2	< 3	0.6	< 1	55.3
1309209	< 0.5	< 0.5	223	110	60	44.6	323	153	< 5	112	3	0.5	7	< 3	< 2	< 1	< 0.5	< 5	7	< 3	0.5	< 1	5.4
1309210	4.5	1.6	136	80	22	9.9	81	9	< 5	66	< 2	< 0.5	< 5	< 3	< 2	1	< 0.5	< 5	< 2	< 3	0.3	< 1	31.7
1309211	< 0.5	< 0.5	245	122	54	38.3	264	130	< 5	83	< 2	< 0.5	< 5	< 3	< 2	< 1	< 0.5	< 5	54	< 3	4.9	< 1	4.3
1309212	< 0.5	< 0.5	209	104	39	31.0	249	83	< 5	72	< 2	< 0.5	< 5	4	< 2	< 1	0.6	4490	12	< 3	1.2	< 1	2.5
1309213	< 0.5	< 0.5	5	1	< 1	0.2	< 5	4	< 5	5	< 2	< 0.5	< 5	< 3	< 2	< 1	< 0.5	< 5	< 2	< 3	< 0.2	< 1	< 0.2

Analyte Symbol	Ce	Nd	Sm	Eu	Tb	Yb	Lu	Ir	Mass
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	g
Detection Limit	3	5	0.1	0.1	0.5	0.1	0.05	5	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
1309201	40	20	4.1	1.1	< 0.5	1.5	0.15	< 5	1.388
1309202	4	< 5	0.2	< 0.1	< 0.5	0.1	< 0.05	< 5	1.578
1309203	10	< 5	0.7	< 0.1	< 0.5	0.2	< 0.05	< 5	1.637
1309204	29	17	2.3	0.5	< 0.5	0.9	0.05	< 5	1.584
1309205	23	5	1.7	0.4	< 0.5	0.2	< 0.05	< 5	1.553
1309206	39	15	4.3	1.1	< 0.5	1.8	0.19	< 5	1.635
1309207	34	14	2.7	0.8	< 0.5	0.5	0.09	< 5	1.644
1309208	92	65	7.2	1.7	< 0.5	1.0	0.11	< 5	1.628
1309209	14	10	2.5	0.8	< 0.5	2.6	0.27	< 5	1.927
1309210	57	30	4.5	1.2	< 0.5	0.9	0.08	< 5	1.593
1309211	8	< 5	2.0	0.7	< 0.5	2.4	0.25	< 5	1.890
1309212	8	< 5	1.3	0.2	< 0.5	1.6	0.08	< 5	1.800

Results**Activation Laboratories Ltd.****Report: A22-12418**

Analyte Symbol	Ce	Nd	Sm	Eu	Tb	Yb	Lu	Ir	Mass
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	g
Detection Limit	3	5	0.1	0.1	0.5	0.1	0.05	5	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
1309213	< 3	< 5	< 0.1	< 0.1	< 0.5	< 0.1	< 0.05	< 5	1.920

Analyte Symbol	SiO2	TiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	K2O	Na2O	P2O5	LOI	Total	S	Ba	Rb	Sr	Cs	Ga	Ta	Nb	Hf	Zr	Y
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.01	0.005	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.001	3	2	2	0.5	5	1	1	0.5	2	1
Analysis Method	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	GRAV	FUS-ICP	TD-ICP	MULTI NAA/FUSICP	PPXRF	FUS-ICP	INAA	PPXRF	INAA	PPXRF	INAA	FUS-ICP	FUS-ICP
NIST 694 Meas	11.46	0.116	1.90	0.73	0.01	0.35	42.94	0.53	0.85	30.37													
NIST 694 Cert	11.2	0.110	1.80	0.790	0.0116	0.330	43.6	0.510	0.860	30.2													
BE-N Meas														41				13		115			
BE-N Cert														47.0				17.0		105			
AC-E Meas														157				33		122			
AC-E Cert														152				39.0		110			
DR-N Meas														68				16		8			
DR-N Cert														73.0				22.0		7			
SY-4 Meas	49.25	0.281	20.56	6.17	0.10	0.51	8.12	1.62	6.87	0.13						1152						623	119
SY-4 Cert	49.9	0.287	20.69	6.21	0.108	0.54	8.05	1.66	7.10	0.131						1191						517	119
BIR-1a Meas	48.27	1.001	16.13	11.31	0.16	9.73	12.93	0.02	1.85	0.02						112						16	15
BIR-1a Cert	47.96	0.96	15.50	11.30	0.175	9.700	13.30	0.030	1.82	0.021						110						18	16
STM-2 Meas														109				30		244			
STM-2 Cert														114				34.0		267			
OREAS 101b (4 Acid) Meas																							
OREAS 101b (4 Acid) Cert																							
OREAS 101b (4 Acid) Meas																							
OREAS 101b (4 Acid) Cert																							
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OREAS 101b (4 Acid) Cert																							
OREAS 101b (4 Acid) Meas																							
OREAS 101b (4 Acid) Cert																							
OREAS 98 (4 Acid) Meas													17.1										
OREAS 98 (4 Acid) Cert													15.5										
OREAS 98 (4 Acid) Meas													16.7										
OREAS 98 (4 Acid) Cert													15.5										
OREAS 98 (4 Acid) Meas													16.6										
OREAS 98 (4 Acid) Cert													15.5										
OREAS 98 (4 Acid) Meas													16.7										
OREAS 98 (4 Acid) Cert													15.5										

Analyte Symbol	SiO2	TiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	K2O	Na2O	P2O5	LOI	Total	S	Ba	Rb	Sr	Cs	Ga	Ta	Nb	Hf	Zr	Y
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.01	0.005	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.001	3	2	2	0.5	5	1	1	0.5	2	1
Analysis Method	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	GRAV	FUS-ICP	TD-ICP	MULTI NAA/FUSICP	PPXRF	FUS-ICP	INAA	PPXRF	INAA	PPXRF	INAA	FUS-ICP	FUS-ICP
OREAS 98 (4 Acid) Meas													15.9										
OREAS 98 (4 Acid) Cert													15.5										
DNC-1a Meas	47.70	0.488	19.26	9.72	0.14	10.15	10.92	0.24	1.96	0.06				< 2		150				3		39	17
DNC-1a Cert	47.15	0.480	18.34	9.97	0.150	10.13	11.49	0.234	1.890	0.07				4.50		144				3		38.0	18.0
OREAS 13b (4-Acid) Meas													1.24										
OREAS 13b (4-Acid) Cert													1.2										
OREAS 13b (4-Acid) Meas													1.19										
OREAS 13b (4-Acid) Cert													1.2										
OREAS 13b (4-Acid) Meas													1.21										
OREAS 13b (4-Acid) Cert													1.2										
OREAS 13b (4-Acid) Meas													1.21										
OREAS 13b (4-Acid) Cert													1.2										
OREAS 13b (4-Acid) Meas													1.19										
OREAS 13b (4-Acid) Cert													1.2										
BCR-2 Meas	54.01	2.258	13.64	13.90	0.19	3.59	7.09	1.81	3.06	0.35						338						192	34
BCR-2 Cert	54.1	2.26	13.5	13.8	0.196	3.59	7.12	1.79	3.16	0.35						346						188	37
OREAS 903 (4 Acid) Meas													0.527										
OREAS 903 (4 Acid) Cert													0.500										
OREAS 903 (4 Acid) Meas													0.520										
OREAS 903 (4 Acid) Cert													0.500										
OREAS 903 (4 Acid) Meas													0.510										
OREAS 903 (4 Acid) Cert													0.500										
OREAS 903 (4 Acid) Meas													0.494										
OREAS 903 (4 Acid) Cert													0.500										
OREAS 45d (4-Acid) Meas													0.051										
OREAS 45d (4-Acid) Cert													0.049										
OREAS 45d (4-Acid) Meas													0.042										
OREAS 45d (4-Acid) Cert													0.049										
OREAS 45d (4-Acid) Meas													0.042										
OREAS 45d													0.049										

Analyte Symbol	SiO2	TiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	K2O	Na2O	P2O5	LOI	Total	S	Ba	Rb	Sr	Cs	Ga	Ta	Nb	Hf	Zr	Y
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.01	0.005	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.001	3	2	2	0.5	5	1	1	0.5	2	1
Analysis Method	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	GRAV	FUS-ICP	TD-ICP	MULTI NAA/FUSICP	PPXRF	FUS-ICP	INAA	PPXRF	INAA	PPXRF	INAA	FUS-ICP	FUS-ICP
(4-Acid) Cert																							
OREAS 45d (4-Acid) Meas													0.039										
OREAS 45d (4-Acid) Cert													0.049										
OREAS 45d (4-Acid) Meas													0.040										
OREAS 45d (4-Acid) Cert													0.049										
OREAS 45d (4-Acid) Meas													0.045										
OREAS 45d (4-Acid) Cert													0.049										
OREAS 905 (INAA) Meas																	7.1		< 1		6.9		
OREAS 905 (INAA) Cert																	7.10		1.38		7.26		
OREAS 96 (4 Acid) Meas													4.47										
OREAS 96 (4 Acid) Cert													4.19										
OREAS 96 (4 Acid) Meas													4.50										
OREAS 96 (4 Acid) Cert													4.19										
OREAS 96 (4 Acid) Meas													4.22										
OREAS 96 (4 Acid) Cert													4.19										
OREAS 96 (4 Acid) Meas													4.20										
OREAS 96 (4 Acid) Cert													4.19										
OREAS 96 (4 Acid) Meas													4.27										
OREAS 96 (4 Acid) Cert													4.19										
Oreas 77b (4 Acid) Meas																							
Oreas 77b (4 Acid) Cert																							
Oreas 77b (4 Acid) Meas																							
Oreas 77b (4 Acid) Cert																							
Oreas 77b (4 Acid) Meas																							
Oreas 77b (4 Acid) Cert																							
Oreas 72b (4 Acid) Meas													1.49										
Oreas 72b (4 Acid) Cert													1.49										
Oreas 72b (4 Acid) Meas													1.50										
Oreas 72b (4 Acid) Meas													1.49										

Analyte Symbol	SiO2	TiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	K2O	Na2O	P2O5	LOI	Total	S	Ba	Rb	Sr	Cs	Ga	Ta	Nb	Hf	Zr	Y
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.01	0.005	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.001	3	2	2	0.5	5	1	1	0.5	2	1
Analysis Method	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	GRAV	FUS-ICP	TD-ICP	MULTI NAA/FUSICP	PPXRF	FUS-ICP	INAA	PPXRF	INAA	PPXRF	INAA	FUS-ICP	FUS-ICP
Acid) Cert																							
Oreas 72b (4 Acid) Meas													1.43										
Oreas 72b (4 Acid) Cert													1.49										
Oreas 72b (4 Acid) Meas													1.44										
Oreas 72b (4 Acid) Cert													1.49										
W-2b Meas	51.34	1.058	14.93	10.72	0.16	6.32	11.11	0.59	2.09	0.12						188						94	20
W-2b Cert	52.4	1.06	15.4	10.7	0.163	6.37	10.9	0.626	2.14	0.140						190						94.0	24.0
OREAS 681 (4 Acid) Meas													0.110										
OREAS 681 (4 Acid) Cert													0.109										
OREAS 681 (4 Acid) Meas													0.107										
OREAS 681 (4 Acid) Cert													0.109										
OREAS 681 (4 Acid) Meas													0.104										
OREAS 681 (4 Acid) Cert													0.109										
OREAS 681 (4 Acid) Meas													0.103										
OREAS 681 (4 Acid) Cert													0.109										
OREAS 681 (4 Acid) Meas													0.104										
OREAS 681 (4 Acid) Cert													0.109										
OREAS 681 (4 Acid) Meas													0.104										
OREAS 681 (4 Acid) Cert													0.109										
OREAS 247 (4 Acid) Meas													0.741										
OREAS 247 (4 Acid) Cert													0.714										
OREAS 147 (4 Acid) Meas													0.021										
OREAS 147 (4 Acid) Cert													0.0300										
OREAS 147 (4 Acid) Meas													0.025										
OREAS 147 (4 Acid) Cert													0.0300										
OREAS 147 (4 Acid) Meas													0.018										
OREAS 147 (4 Acid) Cert													0.0300										
OREAS 147 (4 Acid) Meas													0.027										
OREAS 147 (4 Acid) Cert													0.0300										

Analyte Symbol	SiO2	TiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	K2O	Na2O	P2O5	LOI	Total	S	Ba	Rb	Sr	Cs	Ga	Ta	Nb	Hf	Zr	Y	
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Detection Limit	0.01	0.005	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.001	3	2	2	0.5	5	1	1	0.5	2	1	
Analysis Method	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	GRAV	FUS-ICP	TD-ICP	MULTI NAA/FUSICP	PPXRF	FUS-ICP	INAA	PPXRF	INAA	PPXRF	INAA	FUS-ICP	FUS-ICP	
Oreas 521 (4 Acid) Meas													1.82											
Oreas 521 (4 Acid) Cert													1.80											
Oreas 521 (4 Acid) Meas													1.80											
Oreas 521 (4 Acid) Cert													1.80											
Oreas 521 (4 Acid) Meas													1.69											
Oreas 521 (4 Acid) Cert													1.80											
Oreas 521 (4 Acid) Meas													1.68											
Oreas 521 (4 Acid) Cert													1.80											
Oreas 521 (4 Acid) Meas													1.72											
Oreas 521 (4 Acid) Cert													1.80											
OREAS 70b (4 Acid) Meas													0.292											
OREAS 70b (4 Acid) Cert													0.309											
OREAS 620 (4 Acid) Meas													2.62											
OREAS 620 (4 Acid) Cert													2.47											
OREAS 620 (4 Acid) Meas													2.57											
OREAS 620 (4 Acid) Cert													2.47											
OREAS 620 (4 Acid) Meas													2.55											
OREAS 620 (4 Acid) Cert													2.47											
OREAS 620 (4 Acid) Meas													2.65											
OREAS 620 (4 Acid) Cert													2.47											
OREAS 620 (4 Acid) Meas													2.62											
OREAS 620 (4 Acid) Cert													2.47											
OREAS 620 (4 Acid) Meas													2.64											
OREAS 620 (4 Acid) Cert													2.47											
OREAS 620 (4 Acid) Meas													2.48											
OREAS 620 (4 Acid) Cert													2.47											
OREAS 753 (4 Acid) Meas													0.012											
OREAS 753 (4 Acid) Cert													0.014											

Analyte Symbol	SiO2	TiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	K2O	Na2O	P2O5	LOI	Total	S	Ba	Rb	Sr	Cs	Ga	Ta	Nb	Hf	Zr	Y	
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Detection Limit	0.01	0.005	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.001	3	2	2	0.5	5	1	1	0.5	2	1	
Analysis Method	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	GRAV	FUS-ICP	TD-ICP	MULT INAA/FUSICP	PPXRF	FUS-ICP	INAA	PPXRF	INAA	PPXRF	INAA	FUS-ICP	FUS-ICP	
1309211 Orig	48.37	0.882	16.30	11.89	0.17	5.75	9.43	0.02	2.33	0.06		99.15				376						54	18	
1309211 Dup	48.14	0.872	16.23	12.05	0.17	5.56	9.75	0.02	2.21	0.07		99.03				366						54	18	
Method Blank	0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.01						< 2						< 2	< 1	
Method Blank													0.002											
Method Blank													0.002											
Method Blank													0.002											
Method Blank													0.002											
Method Blank													0.001											
Method Blank													< 0.001											
Method Blank													0.002											
Method Blank													0.001											
Method Blank													0.001											
Method Blank													0.001											
Method Blank													0.002											
Method Blank													0.002											
Method Blank																	< 0.5		< 1		< 0.5			
Method Blank													< 0.001											
Method Blank													< 0.001											
Method Blank													< 0.001											
Method Blank													< 0.001											
Method Blank													0.001											
Method Blank													0.001											
Method Blank													< 0.001											
Method Blank													< 0.001											
Method Blank													< 0.001											
Method Blank													< 0.001											
Method Blank													< 0.001											
Method Blank													< 0.001											
Method Blank													0.002											

Analyte Symbol	Th	U	Cr	Ni	Co	Sc	V	Cu	Pb	Zn	Bi	Cd	Sn	W	Mo	Be	Ag	Au	As	Se	Sb	Br	La
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.5	0.5	1	1	1	0.1	5	1	5	1	2	0.5	5	3	2	1	0.5	5	2	3	0.2	1	0.2
Analysis Method	INAA	INAA	INAA	TD-ICP	INAA	INAA	FUS-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	PPXRF	INAA	TD-ICP	FUS-ICP	MULT INAA / TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
NIST 694 Meas							1631																
NIST 694 Cert							1740																
BE-N Meas																							
BE-N Cert																							
AC-E Meas													< 5										
AC-E Cert													13.0										
DR-N Meas													< 5										
DR-N Cert													2.0										
SY-4 Meas							7									3							
SY-4 Cert							8.0									2.6							
BIR-1a Meas							333									< 1							
BIR-1a Cert							310									0.58							
STM-2 Meas																							
STM-2 Cert																							
OREAS 101b (4 Acid) Meas				10				421	16						21								

Analyte Symbol	Th	U	Cr	Ni	Co	Sc	V	Cu	Pb	Zn	Bi	Cd	Sn	W	Mo	Be	Ag	Au	As	Se	Sb	Br	La
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.5	0.5	1	1	1	0.1	5	1	5	1	2	0.5	5	3	2	1	0.5	5	2	3	0.2	1	0.2
Analysis Method	INAA	INAA	INAA	TD-ICP	INAA	INAA	FUS-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	PPXRF	INAA	TD-ICP	FUS-ICP	MULT INAA / TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
OREAS 101b (4 Acid) Cert				8.2				412	23						20.1								
OREAS 101b (4 Acid) Meas				10				410	16						19								
OREAS 101b (4 Acid) Cert				8.2				412	23						20.1								
OREAS 101b (4 Acid) Meas				10				427	21						19								
OREAS 101b (4 Acid) Cert				8.2				412	23						20.1								
OREAS 101b (4 Acid) Meas				9				421	19						21								
OREAS 101b (4 Acid) Cert				8.2				412	23						20.1								
OREAS 101b (4 Acid) Meas				10				406	17						20								
OREAS 101b (4 Acid) Cert				8.2				412	23						20.1								
OREAS 101b (4 Acid) Meas				9				401	18						20								
OREAS 101b (4 Acid) Cert				8.2				412	23						20.1								
OREAS 98 (4 Acid) Meas								> 10000	301	1320	23												
OREAS 98 (4 Acid) Cert								14800 0.0	345	1360	97.2												
OREAS 98 (4 Acid) Meas								> 10000	297	1290	23												
OREAS 98 (4 Acid) Cert								14800 0.0	345	1360	97.2												
OREAS 98 (4 Acid) Meas								> 10000	282	1300	14												
OREAS 98 (4 Acid) Cert								14800 0.0	345	1360	97.2												
OREAS 98 (4 Acid) Meas								> 10000	277	1310	18												
OREAS 98 (4 Acid) Cert								14800 0.0	345	1360	97.2												
OREAS 98 (4 Acid) Meas								> 10000	285	1280	56												
OREAS 98 (4 Acid) Cert								14800 0.0	345	1360	97.2												
DNC-1a Meas							154																
DNC-1a Cert							148																
OREAS 13b (4-Acid) Meas				2180				2350		150					10								
OREAS 13b (4-Acid) Cert				2247.0 000				2327.0 000		133					9								
OREAS 13b (4-Acid) Meas				2140				2330		146					9								
OREAS 13b (4-Acid) Cert				2247.0 000				2327.0 000		133					9								
OREAS 13b (4-Acid) Meas				2030				2450		144					11								
OREAS 13b (4-Acid) Cert				2247.0 000				2327.0 000		133					9.0								

Analyte Symbol	Th	U	Cr	Ni	Co	Sc	V	Cu	Pb	Zn	Bi	Cd	Sn	W	Mo	Be	Ag	Au	As	Se	Sb	Br	La
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.5	0.5	1	1	1	0.1	5	1	5	1	2	0.5	5	3	2	1	0.5	5	2	3	0.2	1	0.2
Analysis Method	INAA	INAA	INAA	TD-ICP	INAA	INAA	FUS-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	PPXRF	INAA	TD-ICP	FUS-ICP	MULT INAA / TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
OREAS 13b (4-Acid) Meas				2130				2420		137					9								
OREAS 13b (4-Acid) Cert				2247.0000				2327.0000		133					9								
OREAS 13b (4-Acid) Meas				2090				2430		135					9								
OREAS 13b (4-Acid) Cert				2247.0000				2327.0000		133					9								
BCR-2 Meas							433																
BCR-2 Cert							416																
OREAS 903 (4 Acid) Meas				55				6730	8	26	4	< 0.5			4								
OREAS 903 (4 Acid) Cert				54.0				6520	11.3	24.3	8.90	0.200			4.32								
OREAS 903 (4 Acid) Meas				56				6540	6	26	9	< 0.5			4								
OREAS 903 (4 Acid) Cert				54.0				6520	11.3	24.3	8.90	0.200			4.32								
OREAS 903 (4 Acid) Meas				59				6570	12	29	8	< 0.5			6								
OREAS 903 (4 Acid) Cert				54.0				6520	11.3	24.3	8.90	0.200			4.32								
OREAS 903 (4 Acid) Meas				53				6230	7	26	2	< 0.5			4								
OREAS 903 (4 Acid) Cert				54.0				6520	11.3	24.3	8.90	0.200			4.32								
OREAS 45d (4-Acid) Meas				228				391	20	48	4				< 2								
OREAS 45d (4-Acid) Cert				231.0				371	21.8	45.7	0.31				2.500								
OREAS 45d (4-Acid) Meas				229				375	20	45	4				< 2								
OREAS 45d (4-Acid) Cert				231.0				371	21.8	45.7	0.31				2.500								
OREAS 45d (4-Acid) Meas				223				387	17	46	< 2				< 2								
OREAS 45d (4-Acid) Cert				231.0				371	21.8	45.7	0.31				2.500								
OREAS 45d (4-Acid) Meas				234				377	15	44	5				< 2								
OREAS 45d (4-Acid) Cert				231.0				371	21.8	45.7	0.31				2.500								
OREAS 45d (4-Acid) Meas				239				383	18	45	4				< 2								
OREAS 45d (4-Acid) Cert				231.0				371	21.8	45.7	0.31				2.500								
OREAS 45d (4-Acid) Meas				228				370	15	45	< 2				2								
OREAS 45d (4-Acid) Cert				231.0				371	21.8	45.7	0.31				2.500								
OREAS 905 (INAA) Meas	15.0	4.4			16									< 3			413	36			2.1		51.7
OREAS 905 (INAA) Cert	14.7	5.00			15.3									3.02			391	36.2			1.96		48.0
OREAS 96 (4 Acid) Meas								> 10000	83	446	8												

Analyte Symbol	Th	U	Cr	Ni	Co	Sc	V	Cu	Pb	Zn	Bi	Cd	Sn	W	Mo	Be	Ag	Au	As	Se	Sb	Br	La
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.5	0.5	1	1	1	0.1	5	1	5	1	2	0.5	5	3	2	1	0.5	5	2	3	0.2	1	0.2
Analysis Method	INAA	INAA	INAA	TD-ICP	INAA	INAA	FUS-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	PPXRF	INAA	TD-ICP	FUS-ICP	MULT INAA / TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
OREAS 96 (4 Acid) Cert								39300	101	457	26.3												
OREAS 96 (4 Acid) Meas								> 10000	87	454	< 2												
OREAS 96 (4 Acid) Cert								39300	101	457	26.3												
OREAS 96 (4 Acid) Meas								> 10000	86	435	11												
OREAS 96 (4 Acid) Cert								39300	101	457	26.3												
OREAS 96 (4 Acid) Meas								> 10000	84	446	6												
OREAS 96 (4 Acid) Cert								39300	101	457	26.3												
OREAS 96 (4 Acid) Meas								> 10000	83	440	15												
OREAS 96 (4 Acid) Cert								39300	101	457	26.3												
Oreas 77b (4 Acid) Meas				> 10000				3130	53	187	14	0.9											
Oreas 77b (4 Acid) Cert				113000				3430	61.0	205	3.44	1.20											
Oreas 77b (4 Acid) Meas				> 10000				3100	44	185	10	0.8											
Oreas 77b (4 Acid) Cert				113000				3430	61.0	205	3.44	1.20											
Oreas 77b (4 Acid) Meas				> 10000				3170	59	176	< 2	0.5											
Oreas 77b (4 Acid) Cert				113000				3430	61.0	205	3.44	1.20											
Oreas 72b (4 Acid) Meas				6660				219	13	96	< 2	< 0.5			3								
Oreas 72b (4 Acid) Cert				6860				222	14.9	99.0	0.680	0.310			4.01								
Oreas 72b (4 Acid) Meas				6550				224	12	98	< 2	< 0.5			3								
Oreas 72b (4 Acid) Cert				6860				222	14.9	99.0	0.680	0.310			4.01								
Oreas 72b (4 Acid) Meas				6160				222	12	91	< 2	< 0.5			3								
Oreas 72b (4 Acid) Cert				6860				222	14.9	99.0	0.680	0.310			4.01								
Oreas 72b (4 Acid) Meas				6280				214	9	90	< 2	< 0.5			3								
Oreas 72b (4 Acid) Cert				6860				222	14.9	99.0	0.680	0.310			4.01								
W-2b Meas							270									< 1							
W-2b Cert							262									1.30							
OREAS 681 (4 Acid) Meas				478				297	< 5	86	< 2				< 2								
OREAS 681 (4 Acid) Cert				503				264	10.2	88.0	0.0980				1.38								
OREAS 681 (4 Acid) Meas				485				263	9	85	< 2				< 2								
OREAS 681 (4 Acid) Cert				503				264	10.2	88.0	0.0980				1.38								

Analyte Symbol	Th	U	Cr	Ni	Co	Sc	V	Cu	Pb	Zn	Bi	Cd	Sn	W	Mo	Be	Ag	Au	As	Se	Sb	Br	La
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.5	0.5	1	1	1	0.1	5	1	5	1	2	0.5	5	3	2	1	0.5	5	2	3	0.2	1	0.2
Analysis Method	INAA	INAA	INAA	TD-ICP	INAA	INAA	FUS-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	PPXRF	INAA	TD-ICP	FUS-ICP	MULT INAA / TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
OREAS 681 (4 Acid) Meas				442				284	< 5	78	< 2				< 2								
OREAS 681 (4 Acid) Cert				503				264	10.2	88.0	0.0980				1.38								
OREAS 681 (4 Acid) Meas				469				273	< 5	79	< 2				< 2								
OREAS 681 (4 Acid) Cert				503				264	10.2	88.0	0.0980				1.38								
OREAS 681 (4 Acid) Meas				458				263	5	78	< 2				< 2								
OREAS 681 (4 Acid) Cert				503				264	10.2	88.0	0.0980				1.38								
OREAS 681 (4 Acid) Meas				455				263	< 5	77	< 2				< 2								
OREAS 681 (4 Acid) Cert				503				264	10.2	88.0	0.0980				1.38								
OREAS 247 (4 Acid) Meas				46				47	28	87	< 2	< 0.5			< 2								
OREAS 247 (4 Acid) Cert				45.9				42.2	31.9	86.0	0.580	0.0650			1.76								
OREAS 147 (4 Acid) Meas				23				303	21	146	6				7								
OREAS 147 (4 Acid) Cert				21.2				298	27.8	138	12.5				7.99								
OREAS 147 (4 Acid) Meas				22				312	27	142	10				5								
OREAS 147 (4 Acid) Cert				21.2				298	27.8	138	12.5				7.99								
OREAS 147 (4 Acid) Meas				22				287	25	141	9				4								
OREAS 147 (4 Acid) Cert				21.2				298	27.8	138	12.5				7.99								
OREAS 147 (4 Acid) Meas				25				296	26	143	9				6								
OREAS 147 (4 Acid) Cert				21.2				298	27.8	138	12.5				7.99								
Oreas 521 (4 Acid) Meas				72				5840	7	26	5				142								
Oreas 521 (4 Acid) Cert				73				6070	9	24	6				138								
Oreas 521 (4 Acid) Meas				72				5810	7	29	3				131								
Oreas 521 (4 Acid) Cert				73				6070	9	24	6				138								
Oreas 521 (4 Acid) Meas				74				5820	7	23	5				145								
Oreas 521 (4 Acid) Cert				73				6070	9	24	6				138								
Oreas 521 (4 Acid) Meas				70				5750	< 5	25	6				128								
Oreas 521 (4 Acid) Cert				73				6070	9	24	6				138								
Oreas 521 (4 Acid) Meas				71				5870	< 5	23	< 2				132								
Oreas 521 (4 Acid) Cert				73				6070	9	24	6				138								
OREAS 70b (4				1970				46	15	98	< 2	< 0.5			4								

Analyte Symbol	Th	U	Cr	Ni	Co	Sc	V	Cu	Pb	Zn	Bi	Cd	Sn	W	Mo	Be	Ag	Au	As	Se	Sb	Br	La
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.5	0.5	1	1	1	0.1	5	1	5	1	2	0.5	5	3	2	1	0.5	5	2	3	0.2	1	0.2
Analysis Method	INAA	INAA	INAA	TD-ICP	INAA	INAA	FUS-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	PPXRF	INAA	TD-ICP	FUS-ICP	MULT INAA / TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
Acid) Meas																							
OREAS 70b (4 Acid) Cert				2180				52	14	110	0.8	0.4			3								
OREAS 620 (4 Acid) Meas				17				1790	> 5000	> 10000	< 2	162			9								
OREAS 620 (4 Acid) Cert				15				1730	7740	31500	2	163			9								
OREAS 620 (4 Acid) Meas				15				1690	> 5000	> 10000	4	161			8								
OREAS 620 (4 Acid) Cert				15				1730	7740	31500	2	163			9								
OREAS 620 (4 Acid) Meas				15				1700	> 5000	> 10000	< 2	162			9								
OREAS 620 (4 Acid) Cert				15				1730	7740	31500	2	163			9								
OREAS 620 (4 Acid) Meas				14				1800	> 5000	> 10000	< 2	170			8								
OREAS 620 (4 Acid) Cert				15				1730	7740	31500	2	163			9								
OREAS 620 (4 Acid) Meas				18				1750	> 5000	> 10000	< 2	162			10								
OREAS 620 (4 Acid) Cert				15				1730	7740	31500	2	163			9.5								
OREAS 620 (4 Acid) Meas				16				1770	> 5000	> 10000	< 2	161			10								
OREAS 620 (4 Acid) Cert				15				1730	7740	31500	2	163			9.5								
OREAS 620 (4 Acid) Meas				15				1700	> 5000	> 10000	< 2	160			10								
OREAS 620 (4 Acid) Cert				15				1730	7740	31500	2	163			9								
OREAS 753 (4 Acid) Meas				13				21	< 5	96	< 2	1.6			3								
OREAS 753 (4 Acid) Cert				10.8				18.4	10.9	87	2.20	1.54			3.32								
1309211 Orig							264									< 1							
1309211 Dup							261									< 1							
Method Blank							< 5									< 1							
Method Blank				< 1				< 1	< 5	< 1	< 2	< 0.5			< 2								
Method Blank				< 1				< 1	< 5	< 1	< 2	< 0.5			< 2								
Method Blank				< 1				7	< 5	< 1	< 2	< 0.5			< 2								
Method Blank				< 1				< 1	< 5	< 1	< 2	< 0.5			< 2								
Method Blank				< 1				< 1	< 5	< 1	< 2	< 0.5			< 2								
Method Blank				< 1				< 1	< 5	< 1	< 2	< 0.5			< 2								
Method Blank				< 1				< 1	< 5	< 1	< 2	< 0.5			< 2								
Method Blank				< 1				< 1	< 5	< 1	< 2	< 0.5			< 2								
Method Blank				< 1				< 1	< 5	< 1	< 2	< 0.5			< 2								
Method Blank	< 0.5	< 0.5	< 1		< 1	< 0.1								< 3			< 5	< 2	< 3	< 0.2	< 1	< 0.2	
Method Blank				< 1				< 1	< 5	< 1	< 2	< 0.5			< 2								
Method Blank				< 1				< 1	< 5	< 1	< 2	< 0.5			< 2								
Method Blank				< 1				< 1	< 5	< 1	< 2	< 0.5			< 2								
Method Blank				< 1				< 1	< 5	2	< 2	< 0.5			< 2								
Method Blank				< 1				< 1	< 5	< 1	< 2	< 0.5			< 2								

Analyte Symbol	Th	U	Cr	Ni	Co	Sc	V	Cu	Pb	Zn	Bi	Cd	Sn	W	Mo	Be	Ag	Au	As	Se	Sb	Br	La
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.5	0.5	1	1	1	0.1	5	1	5	1	2	0.5	5	3	2	1	0.5	5	2	3	0.2	1	0.2
Analysis Method	INAA	INAA	INAA	TD-ICP	INAA	INAA	FUS-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	PPXRF	INAA	TD-ICP	FUS-ICP	MULT INAA / TD-ICP	INAA	INAA	INAA	INAA	INAA	INAA
Method Blank				< 1				< 1	< 5	< 1	< 2	< 0.5			< 2								
Method Blank				< 1				< 1	< 5	< 1	< 2	< 0.5			< 2								
Method Blank				< 1				< 1	< 5	< 1	< 2	< 0.5			< 2								
Method Blank				< 1				< 1	< 5	< 1	< 2	< 0.5			< 2								
Method Blank				< 1				< 1	< 5	< 1	< 2	< 0.5			< 2								
Method Blank				< 1				< 1	< 5	< 1	< 2	< 0.5			< 2								
Method Blank				< 1				< 1	< 5	< 1	< 2	< 0.5			< 2								
Method Blank				< 1				< 1	< 5	2	< 2	< 0.5			< 2								

Analyte Symbol	Ce	Nd	Sm	Eu	Tb	Yb	Lu	Ir	Mass
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	g
Detection Limit	3	5	0.1	0.1	0.5	0.1	0.05	5	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
NIST 694 Meas									
NIST 694 Cert									
BE-N Meas									
BE-N Cert									
AC-E Meas									
AC-E Cert									
DR-N Meas									
DR-N Cert									
SY-4 Meas									
SY-4 Cert									
BIR-1a Meas									
BIR-1a Cert									
STM-2 Meas									
STM-2 Cert									
OREAS 101b (4 Acid) Meas									
OREAS 101b (4 Acid) Cert									
OREAS 101b (4 Acid) Meas									
OREAS 101b (4 Acid) Cert									
OREAS 101b (4 Acid) Meas									
OREAS 101b (4 Acid) Cert									
OREAS 101b (4 Acid) Meas									
OREAS 101b (4 Acid) Cert									
OREAS 101b (4 Acid) Meas									
OREAS 101b (4 Acid) Cert									
OREAS 101b (4 Acid) Meas									
OREAS 101b (4 Acid) Cert									
OREAS 98 (4 Acid) Meas									

Analyte Symbol	Ce	Nd	Sm	Eu	Tb	Yb	Lu	Ir	Mass
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	g
Detection Limit	3	5	0.1	0.1	0.5	0.1	0.05	5	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
OREAS 98 (4 Acid) Cert									
OREAS 98 (4 Acid) Meas									
OREAS 98 (4 Acid) Cert									
OREAS 98 (4 Acid) Meas									
OREAS 98 (4 Acid) Cert									
OREAS 98 (4 Acid) Meas									
OREAS 98 (4 Acid) Cert									
OREAS 98 (4 Acid) Meas									
OREAS 98 (4 Acid) Cert									
OREAS 98 (4 Acid) Meas									
DNC-1a Meas									
DNC-1a Cert									
OREAS 13b (4-Acid) Meas									
OREAS 13b (4-Acid) Cert									
OREAS 13b (4-Acid) Meas									
OREAS 13b (4-Acid) Cert									
OREAS 13b (4-Acid) Meas									
OREAS 13b (4-Acid) Cert									
OREAS 13b (4-Acid) Meas									
OREAS 13b (4-Acid) Cert									
OREAS 13b (4-Acid) Meas									
OREAS 13b (4-Acid) Cert									
OREAS 13b (4-Acid) Meas									
OREAS 13b (4-Acid) Cert									
BCR-2 Meas									
BCR-2 Cert									
OREAS 903 (4 Acid) Meas									
OREAS 903 (4 Acid) Cert									
OREAS 903 (4 Acid) Meas									
OREAS 903 (4 Acid) Cert									
OREAS 903 (4 Acid) Meas									
OREAS 903 (4 Acid) Cert									
OREAS 903 (4 Acid) Meas									
OREAS 903 (4 Acid) Cert									
OREAS 903 (4 Acid) Meas									
OREAS 903 (4 Acid) Cert									

Analyte Symbol	Ce	Nd	Sm	Eu	Tb	Yb	Lu	Ir	Mass
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	g
Detection Limit	3	5	0.1	0.1	0.5	0.1	0.05	5	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
Oreas 77b (4 Acid) Cert									
Oreas 72b (4 Acid) Meas									
Oreas 72b (4 Acid) Cert									
Oreas 72b (4 Acid) Meas									
Oreas 72b (4 Acid) Cert									
Oreas 72b (4 Acid) Meas									
Oreas 72b (4 Acid) Cert									
Oreas 72b (4 Acid) Meas									
Oreas 72b (4 Acid) Cert									
Oreas 72b (4 Acid) Meas									
Oreas 72b (4 Acid) Cert									
Oreas 72b (4 Acid) Meas									
W-2b Meas									
W-2b Cert									
OREAS 681 (4 Acid) Meas									
OREAS 681 (4 Acid) Cert									
OREAS 681 (4 Acid) Meas									
OREAS 681 (4 Acid) Cert									
OREAS 681 (4 Acid) Meas									
OREAS 681 (4 Acid) Cert									
OREAS 681 (4 Acid) Meas									
OREAS 681 (4 Acid) Cert									
OREAS 681 (4 Acid) Meas									
OREAS 681 (4 Acid) Cert									
OREAS 681 (4 Acid) Meas									
OREAS 681 (4 Acid) Cert									
OREAS 681 (4 Acid) Meas									
OREAS 681 (4 Acid) Cert									
OREAS 247 (4 Acid) Meas									
OREAS 247 (4 Acid) Cert									
OREAS 147 (4 Acid) Meas									
OREAS 147 (4 Acid) Cert									
OREAS 147 (4 Acid) Meas									
OREAS 147 (4 Acid) Cert									
OREAS 147 (4 Acid) Meas									



Report No.: A22-12018
Report Date: 02-Sep-22
Date Submitted: 23-Aug-22
Your Reference: Swain

Trillium Gold Mines Inc.
1055 West Hastings Street, Suite 2250
Vancouver BC V6E 2E9
Canada

ATTN: William Paterson

CERTIFICATE OF ANALYSIS

25 Rock samples were submitted for analysis.

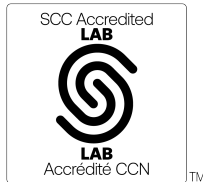
Table with 3 columns: Analytical package requested, Test Name, and Testing Date. Rows include 1A2B-50-Tbay (g/m t) with QOP AA-Au (Au - Fire Assay AA) and Weight Report in Kg-Tbay with Received Weights-Tbay.

REPORT A22-12018

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3



LabID: 673

ACTIVATION LABORATORIES LTD.
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6
TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

CERTIFIED BY:

Handwritten signature of Elitsa Hrischeva

Elitsa Hrischeva, Ph.D.
Quality Control Coordinator

Analyte Symbol	Received Weight	Au	Au
Unit Symbol	Kg	g/mt	
Detection Limit		0.005	
Analysis Method	none	FA-AA	FA-GRA
1309451	0.860	< 0.005	
1309452	0.580	< 0.005	
1309453	0.870	< 0.005	
1309454	1.34	< 0.005	
1309455	0.664	< 0.005	
1309456	1.30	< 0.005	
1309457	0.962	< 0.005	
1309458	0.884	0.024	
1309459	0.574	< 0.005	
1309460	0.410	< 0.005	
1309461	0.644	< 0.005	
1309462	1.20	< 0.005	
1309463	1.21	< 0.005	
1309464	1.21	0.005	
1309465	1.23	< 0.005	
1309466	0.764	0.028	
1309467	1.05	0.007	
1309251	0.620	0.005	
1309252	0.762	< 0.005	
1309253	1.03	< 0.005	
1309214	1.00	< 0.005	
1309215	0.828	< 0.005	
1309216	1.27	0.265	
1309217	0.544	< 0.005	
1309218	1.27	< 0.005	

Analyte Symbol	Received Weight	Au	Au
Unit Symbol	Kg	g/mt	
Detection Limit		0.005	
Analysis Method	none	FA-AA	FA-GRA
Oreas E1336 (Fire Assay) Meas		0.491	
Oreas E1336 (Fire Assay) Meas		0.517	
OREAS L15 Meas		7.35	
OREAS L15 Meas		6.99	
1309455 Dup		< 0.005	
1309464 Dup		0.005	
1309253 Dup		< 0.005	
1309218 Split PREP DUP		< 0.005	
Method Blank		< 0.005	
Method Blank		< 0.005	
Method Blank		< 0.005	
Method Blank		< 0.005	



Report No.: A22-12018-4E
Report Date: 14-Oct-22
Date Submitted: 23-Aug-22
Your Reference: Swain

Trillium Gold Mines Inc.
1055 West Hastings Street, Suite 2250
Vancouver BC V6E 2E9
Canada

ATTN: William Paterson

CERTIFICATE OF ANALYSIS

25 Rock samples were submitted for analysis.

Table with 2 columns: Analytical package requested (4E-Expl + XRF (11+)) and Testing Date (2022-09-22 13:29:32). Includes details on INAA, ICP(WRA), and XRF methods.

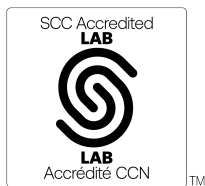
REPORT A22-12018-4E

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Notes:

Total includes all elements in % oxide to the left of total. Values above the upper limit should be assayed for most accurate values.

Footnote: INAA data may be suppressed due high concentrations of some analytes.



LabID: 266

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

CERTIFIED BY:

Handwritten signature of Mark Vandergeest

Mark Vandergeest
Quality Control Coordinator

Analyte Symbol	Received Weight	Au	Au	Au	Ag	As	Ba	Br	Co	Cr	Cs	Hf	Hg	Ir	Sb	Sc	Se	Ta	Th	U	W	La	Ce
Unit Symbol	Kg			ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit				5	0.5	2	3	1	1	1	0.5	0.5	1	5	0.2	0.1	3	1	0.5	0.5	3	0.2	3
Analysis Method	none	FA-AA	FA- GRA	INAA	MULT INAA / TD-ICP	INAA	MULT I NAA/F USICP	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
1309451				< 5	< 0.5	14	37	< 1	50	208	< 0.5	0.8	< 1	< 5	0.8	39.7	< 3	< 1	< 0.5	< 0.5	< 3	5.3	15
1309452				< 5	< 0.5	3	532	< 1	5	25	4.5	3.3	< 1	< 5	1.5	6.8	< 3	< 1	4.3	< 0.5	< 3	19.9	37
1309453				< 5	< 0.5	< 2	812	< 1	3	31	3.0	2.3	< 1	< 5	0.9	3.3	< 3	< 1	4.5	< 0.5	< 3	18.9	33
1309454				5	< 0.5	< 2	183	< 1	19	49	3.3	2.2	< 1	< 5	3.7	6.9	< 3	< 1	2.0	0.8	< 3	12.8	26
1309455				< 5	< 0.5	4	490	< 1	14	62	1.4	4.0	< 1	< 5	0.7	5.9	< 3	< 1	8.0	2.4	< 3	40.9	75
1309456				< 5	< 0.5	5	534	< 1	6	41	7.8	2.6	< 1	< 5	1.6	5.5	< 3	< 1	3.7	< 0.5	< 3	20.4	43
1309457				< 5	< 0.5	16	416	< 1	10	29	5.7	2.9	< 1	< 5	2.4	5.0	< 3	< 1	3.3	< 0.5	< 3	18.7	34
1309458				17	0.6	< 2	494	< 1	< 1	10	5.3	4.1	< 1	< 5	1.6	2.0	< 3	< 1	6.9	3.4	< 3	28.4	52
1309459				< 5	< 0.5	4	317	< 1	20	73	1.8	2.5	< 1	< 5	2.4	9.0	< 3	< 1	3.3	1.5	< 3	17.4	32
1309460				< 5	< 0.5	2	348	< 1	15	60	3.6	3.1	< 1	< 5	2.0	7.7	< 3	< 1	2.9	< 0.5	< 3	16.6	37
1309461				< 5	< 0.5	3	362	< 1	18	107	1.0	2.7	< 1	< 5	3.2	8.5	< 3	< 1	3.2	< 0.5	< 3	17.1	38
1309462				< 5	< 0.5	3	398	< 1	13	45	6.6	2.6	< 1	< 5	1.7	7.7	< 3	< 1	3.0	< 0.5	< 3	22.1	48
1309463				< 5	< 0.5	4	146	< 1	25	401	< 0.5	3.1	< 1	< 5	1.9	20.1	< 3	< 1	5.7	1.4	< 3	29.1	62
1309464				< 5	< 0.5	7	652	< 1	6	13	7.7	2.9	< 1	< 5	1.3	4.6	< 3	< 1	3.7	< 0.5	< 3	14.0	28
1309465				< 5	< 0.5	6	59	< 1	59	183	< 0.5	2.3	< 1	< 5	6.8	26.8	< 3	< 1	< 0.5	< 0.5	< 3	2.0	13
1309466				< 5	< 0.5	7	93	< 1	6	71	< 0.5	0.7	< 1	< 5	2.0	6.1	< 3	< 1	< 0.5	< 0.5	< 3	0.9	3
1309467				< 5	< 0.5	7	236	< 1	25	180	< 0.5	2.2	< 1	< 5	2.5	14.8	< 3	< 1	3.2	< 0.5	< 3	20.5	46
1309251				< 5	< 0.5	11	67	< 1	56	263	< 0.5	1.2	< 1	< 5	2.1	37.8	< 3	< 1	< 0.5	< 0.5	< 3	3.9	8
1309252				< 5	< 0.5	2	11	< 1	10	48	< 0.5	< 0.5	< 1	< 5	0.3	4.4	< 3	< 1	< 0.5	< 0.5	< 3	0.7	< 3
1309253				< 5	< 0.5	15	240	< 1	25	524	< 0.5	2.1	< 1	< 5	4.1	14.8	< 3	< 1	6.6	0.6	< 3	27.2	57
1309214				< 5	< 0.5	12	52	< 1	48	257	< 0.5	1.1	< 1	< 5	0.3	34.1	< 3	< 1	< 0.5	< 0.5	< 3	4.1	11
1309215				< 5	< 0.5	< 2	364	< 1	17	105	< 0.5	3.3	< 1	< 5	0.6	9.4	< 3	< 1	4.7	1.6	< 3	28.0	58
1309216				342	< 0.5	13	1590	< 1	6	78	< 0.5	2.9	< 1	< 5	1.1	5.7	< 3	< 1	7.8	0.6	< 3	37.6	73
1309217				< 5	< 0.5	< 2	632	< 1	< 1	32	1.9	2.0	< 1	< 5	0.9	1.9	< 3	< 1	1.9	3.4	< 3	8.9	23
1309218				< 5	< 0.5	2	855	< 1	< 1	42	2.7	2.2	< 1	< 5	0.7	1.5	< 3	< 1	3.2	1.7	< 3	9.4	25

Analyte Symbol	Nd	Sm	Eu	Tb	Yb	Lu	Mass	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	Total	Be	Sr	V	Y	Zr
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	g	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.1	0.1	0.5	0.1	0.05		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.005	0.01	0.01	1	2	5	1	2
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	FUS- ICP	FUS- ICP	FUS- ICP	FUS- ICP	FUS- ICP	FUS- ICP	FUS- ICP	FUS- ICP	FUS- ICP	FUS- ICP	FUS- ICP	FUS- ICP	FUS- ICP	FUS- ICP	FUS- ICP	FUS- ICP
1309451	< 5	2.2	0.5	0.7	2.2	0.15	1.779	47.78	13.80	12.22	0.18	5.75	8.95	1.91	0.03	0.908	0.09	99.60	< 1	137	269	20	59
1309452	24	2.5	0.4	< 0.5	0.8	< 0.05	1.614	68.08	14.89	3.56	0.04	1.18	1.48	3.35	2.73	0.366	0.14	98.62	< 1	143	50	5	114
1309453	14	2.3	0.5	< 0.5	< 0.1	< 0.05	1.720	68.18	14.00	2.19	0.04	0.84	2.97	4.52	2.04	0.266	0.10	98.51	< 1	168	28	4	99
1309454	< 5	1.7	0.2	< 0.5	0.4	< 0.05	1.454	61.47	11.46	4.16	0.07	2.45	5.86	2.98	1.19	0.297	0.11	99.74	< 1	188	43	5	79
1309455	37	4.6	0.8	< 0.5	0.4	0.11	1.642	68.32	15.12	3.63	0.04	1.73	1.25	4.85	2.05	0.406	0.20	99.77	< 1	129	51	8	153
1309456	25	2.8	0.6	< 0.5	< 0.1	< 0.05	1.390	68.35	14.61	3.44	0.04	0.43	1.93	3.31	3.13	0.362	0.14	98.41	< 1	193	45	5	119
1309457	14	2.3	0.3	< 0.5	0.4	< 0.05	1.810	60.42	12.80	4.71	0.10	1.49	5.58	3.78	2.30	0.309	0.12	98.80	< 1	313	47	5	103
1309458	20	2.8	0.6	< 0.5	0.6	0.10	1.546	73.11	14.48	1.78	0.03	0.25	0.52	3.87	2.75	0.180	0.06	98.72	1	123	8	7	126
1309459	23	2.5	0.6	< 0.5	0.6	0.08	1.392	67.45	16.38	5.30	0.09	0.83	0.23	3.04	1.90	0.420	0.12	99.47	< 1	210	69	6	112
1309460	23	2.6	0.5	< 0.5	0.5	< 0.05	1.519	69.39	15.35	3.92	0.05	0.97	0.70	3.30	1.99	0.427	0.13	99.49	< 1	171	62	6	114
1309461	18	2.7	0.8	< 0.5	0.7	0.11	1.440	66.22	16.55	4.41	0.06	1.07	1.25	3.55	1.62	0.457	0.14	98.83	< 1	263	71	6	122
1309462	23	3.1	0.3	< 0.5	< 0.1	0.06	1.373	65.02	15.00	3.53	0.06	1.20	3.40	2.80	2.61	0.422	0.17	99.42	< 1	178	57	6	115
1309463	30	4.7	1.0	< 0.5	1.3	0.14	1.560	62.47	13.81	6.70	0.09	3.11	2.43	4.80	0.45	0.542	0.28	98.46	< 1	142	110	13	128
1309464	6	2.5	0.7	< 0.5	1.1	0.14	1.385	68.60	13.80	4.27	0.07	0.60	2.01	2.19	3.31	0.303	0.19	98.55	< 1	94	15	9	119
1309465	< 5	2.8	0.7	< 0.5	2.0	0.18	1.643	54.62	15.78	9.72	0.22	2.22	3.87	5.56	0.08	1.304	0.11	98.79	< 1	188	212	19	69
1309466	< 5	1.3	0.4	< 0.5	0.7	0.05	1.643	83.30	3.15	3.39	0.11	0.53	4.60	0.52	0.24	0.387	0.05	100.3	< 1	117	50	9	20
1309467	25	3.5	0.6	< 0.5	1.2	0.05	1.597	59.92	14.85	6.10	0.10	2.54	4.29	4.30	0.83	0.588	0.19	98.56	< 1	221	100	9	105

Analyte Symbol	Nd	Sm	Eu	Tb	Yb	Lu	Mass	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	Total	Be	Sr	V	Y	Zr
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	g	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.1	0.1	0.5	0.1	0.05		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.005	0.01	0.01	1	2	5	1	2
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP
1309251	7	2.0	0.5	< 0.5	2.0	0.15	1.904	46.73	14.57	13.29	0.17	7.02	10.61	1.54	0.24	0.815	0.08	98.48	< 1	240	256	18	52
1309252	< 5	0.2	< 0.1	< 0.5	0.3	< 0.05	1.892	87.79	1.78	2.66	0.06	0.94	2.82	0.09	0.02	0.085	0.02	98.50	< 1	21	37	2	6
1309253	21	3.8	0.7	< 0.5	1.1	< 0.05	1.948	48.37	8.19	6.39	0.12	5.02	10.54	2.34	1.17	0.476	0.26	98.58	< 1	288	101	10	100
1309214	< 5	1.8	0.5	< 0.5	1.9	0.17	1.454	54.86	12.22	10.70	0.16	5.93	4.89	2.38	0.19	0.748	0.09	99.08	< 1	28	223	15	48
1309215	27	4.2	1.1	< 0.5	0.8	0.05	1.710	60.70	14.26	4.15	0.07	3.05	5.04	5.13	0.80	0.383	0.17	98.90	< 1	290	70	8	108
1309216	38	4.5	1.0	< 0.5	0.5	0.07	1.572	69.05	14.37	3.43	0.04	1.05	1.74	4.83	1.45	0.378	0.17	98.86	< 1	241	48	7	130
1309217	< 5	1.7	< 0.1	< 0.5	0.8	0.09	1.962	74.10	14.10	1.01	0.05	0.13	0.80	5.81	1.97	0.038	0.05	98.92	< 1	183	< 5	8	35
1309218	7	1.9	< 0.1	< 0.5	0.4	0.05	1.791	74.56	13.38	0.97	0.04	0.22	0.56	4.50	3.71	0.034	0.04	98.81	1	112	< 5	7	38

Analyte Symbol	Bi	Cd	Cu	Mo	Ni	Pb	S	Zn	Ga	Nb	Rb	Sn	LOI
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%
Detection Limit	2	0.5	1	2	1	5	0.001	1	5	1	2	5	
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	PPXRF	PPXRF	PPXRF	PPXRF	GRAV
1309451	< 2	< 0.5	128	< 2	78	< 5	0.021	79	18	6	< 2	16	7.97
1309452	< 2	< 0.5	24	< 2	14	< 5	0.028	59	17	5	68	< 5	2.81
1309453	< 2	< 0.5	5	< 2	11	< 5	0.018	49	16	5	51	< 5	3.38
1309454	< 2	< 0.5	15	< 2	44	< 5	0.004	70	11	4	20	< 5	9.69
1309455	< 2	< 0.5	2	< 2	27	< 5	0.008	60	18	8	49	< 5	2.19
1309456	< 2	< 0.5	13	< 2	16	< 5	0.008	57	19	5	90	< 5	2.66
1309457	< 2	< 0.5	38	< 2	14	13	0.018	86	14	4	66	< 5	7.19
1309458	< 2	< 0.5	1	< 2	3	6	0.042	50	17	8	85	< 5	1.68
1309459	< 2	< 0.5	21	< 2	55	< 5	0.004	85	16	4	30	< 5	3.72
1309460	< 2	< 0.5	18	< 2	44	< 5	0.004	60	14	5	30	< 5	3.27
1309461	< 2	< 0.5	17	< 2	51	< 5	0.003	66	17	4	34	< 5	3.50
1309462	< 2	< 0.5	22	< 2	29	< 5	0.004	57	16	5	47	< 5	5.22
1309463	< 2	< 0.5	4	< 2	48	< 5	0.005	51	13	7	7	< 5	3.76
1309464	< 2	< 0.5	3	< 2	10	14	0.059	41	12	4	94	< 5	3.22
1309465	< 2	< 0.5	83	< 2	105	< 5	0.007	145	18	5	< 2	< 5	5.32
1309466	< 2	< 0.5	18	2	27	< 5	0.025	38	< 5	1	< 2	< 5	3.98
1309467	< 2	< 0.5	36	< 2	56	< 5	0.031	82	12	7	18	< 5	4.85
1309251	< 2	< 0.5	83	< 2	110	< 5	0.107	77	14	5	< 2	< 5	3.40
1309252	< 2	< 0.5	23	< 2	16	< 5	0.006	20	< 5	1	< 2	< 5	2.23
1309253	< 2	< 0.5	55	< 2	99	< 5	0.011	38	10	7	9	< 5	15.71
1309214	< 2	< 0.5	64	< 2	77	< 5	0.018	74	11	5	< 2	< 5	6.91
1309215	< 2	< 0.5	7	< 2	56	14	0.022	58	14	5	15	< 5	5.13
1309216	< 2	< 0.5	14	< 2	22	27	0.234	50	17	4	33	< 5	2.36
1309217	< 2	< 0.5	1	< 2	3	11	0.028	44	13	13	39	< 5	0.86
1309218	< 2	< 0.5	2	< 2	2	17	0.009	37	12	19	83	< 5	0.80

Analyte Symbol	Received Weight	Au	Au	Au	Ag	As	Ba	Br	Co	Cr	Cs	Hf	Hg	Ir	Sb	Sc	Se	Ta	Th	U	W	La	Ce
Unit Symbol	Kg			ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit				5	5	2	50	1	1	1	0.5	0.5	1	5	0.2	0.1	3	1	0.5	0.5	3	0.2	3
Analysis Method	none	FA-AA	FA- GRA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
NIST 694 Meas																							
GBW 07113 Meas																							
STSD-2 Meas																							
DR-N Meas																							
SY-4 Meas																							
BIR-1a Meas																							
OREAS 101b (4 Acid) Meas																							
OREAS 101b (4 Acid) Meas																							
OREAS 101b (4 Acid) Meas																							
OREAS 98 (4 Acid) Meas																							
OREAS 98 (4 Acid) Meas																							
OREAS 98 (4 Acid) Meas																							
DNC-1a Meas																							
OREAS 13b (4-Acid) Meas																							
OREAS 13b (4-Acid) Meas																							
OREAS 13b (4-Acid) Meas																							
OREAS 904 (4 Acid) Meas																							
OREAS 904 (4 Acid) Meas																							
OREAS 904 (4 Acid) Meas																							
OREAS 45d (4-Acid) Meas																							
OREAS 45d (4-Acid) Meas																							
OREAS 45d (4-Acid) Meas																							
OREAS 905 (INAA) Meas				412		34	2790		15		7.2	7.5		1.9				< 1	14.7	3.9	< 3	49.0	95
OREAS 96 (4 Acid) Meas																							
OREAS 96 (4 Acid) Meas																							
Oreas 77b (4 Acid) Meas																							
Oreas 77b (4 Acid) Meas																							
Oreas 72b (4 Acid) Meas																							
W-2b Meas																							
OREAS 681 (4 Acid) Meas																							
OREAS 681 (4 Acid) Meas																							
OREAS 147 (4																							

Analyte Symbol	Received Weight	Au	Au	Au	Ag	As	Ba	Br	Co	Cr	Cs	Hf	Hg	Ir	Sb	Sc	Se	Ta	Th	U	W	La	Ce	
Unit Symbol	Kg			ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit				5	5	2	50	1	1	1	0.5	0.5	1	5	0.2	0.1	3	1	0.5	0.5	3	0.2	3	
Analysis Method	none	FA-AA	FA- GRA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
Acid) Meas																								
OREAS 147 (4 Acid) Meas																								
Oreas 521 (4 Acid) Meas																								
Oreas 521 (4 Acid) Meas																								
Oreas 521 (4 Acid) Meas																								
OREAS 70b (4 Acid) Meas																								
OREAS 620 (4 Acid) Meas																								
OREAS 620 (4 Acid) Meas																								
OREAS 620 (4 Acid) Meas																								
OREAS 753 (4 Acid) Meas																								
OREAS 753 (4 Acid) Meas																								
1309459 Dup																								
1309218 Split PREP DUP				< 5	< 5	3	940	< 1	< 1	40	< 0.5	2.3	< 1	< 5	1.0	1.5	< 3	< 1	2.7	0.7	< 3	8.4	17	
Method Blank																								
Method Blank																								
Method Blank				< 5	< 5	< 2	< 50	< 1	< 1	< 1	< 0.5	< 0.5	< 1	< 5	< 0.2	< 0.1	< 3	< 1	< 0.5	< 0.5	< 3	< 0.2	< 3	
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Analyte Symbol	Nd	Sm	Eu	Tb	Yb	Lu	Mass	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	Total	Ba	Be	Sr	V	Y	
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	g	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	
Detection Limit	5	0.1	0.1	0.5	0.1	0.05		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.005	0.01	0.01	2	1	2	5	1	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	
NIST 694 Meas								11.32	1.90	0.74	0.01	0.34	42.44	0.86	0.55		29.84						1661	
GBW 07113 Meas								69.58	12.82	3.23	0.14	0.14	0.58	2.46	5.46	0.288	0.04		517	4	41	< 5	45	
STSD-2 Meas																								
DR-N Meas																								
SY-4 Meas								50.12	20.50	6.26	0.10	0.50	7.92	6.78	1.66	0.291	0.13		351	3	1205	8	116	
BIR-1a Meas								49.10	16.00	11.63	0.17	9.64	13.39	1.84	0.01	1.003	0.03		7	< 1	110	340	15	
OREAS 101b (4 Acid) Meas																								

Analyte Symbol	Nd	Sm	Eu	Tb	Yb	Lu	Mass	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	Total	Ba	Be	Sr	V	Y
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	g	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.1	0.1	0.5	0.1	0.05		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.005	0.01	0.01	2	1	2	5	1
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP
OREAS 101b (4 Acid) Meas																							
OREAS 101b (4 Acid) Meas																							
OREAS 98 (4 Acid) Meas																							
OREAS 98 (4 Acid) Meas																							
OREAS 98 (4 Acid) Meas																							
DNC-1a Meas								48.00	19.03	10.10	0.14	9.98	11.28	1.93	0.23	0.493	0.08		110		145	154	17
OREAS 13b (4-Acid) Meas																							
OREAS 13b (4-Acid) Meas																							
OREAS 13b (4-Acid) Meas																							
OREAS 904 (4 Acid) Meas																							
OREAS 904 (4 Acid) Meas																							
OREAS 904 (4 Acid) Meas																							
OREAS 45d (4-Acid) Meas																							
OREAS 45d (4-Acid) Meas																							
OREAS 45d (4-Acid) Meas																							
OREAS 905 (INAA) Meas	43	7.7	1.5	< 0.5	0.3																		
OREAS 96 (4 Acid) Meas																							
OREAS 96 (4 Acid) Meas																							
Oreas 77b (4 Acid) Meas																							
Oreas 77b (4 Acid) Meas																							
Oreas 72b (4 Acid) Meas																							
W-2b Meas								51.50	14.95	10.45	0.16	6.04	10.58	2.15	0.61	1.050	0.12		179	< 1	192	268	19
OREAS 681 (4 Acid) Meas																							
OREAS 681 (4 Acid) Meas																							
OREAS 147 (4 Acid) Meas																							
OREAS 147 (4 Acid) Meas																							
Oreas 521 (4 Acid) Meas																							
Oreas 521 (4 Acid) Meas																							
Oreas 521 (4 Acid) Meas																							

Analyte Symbol	Nd	Sm	Eu	Tb	Yb	Lu	Mass	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	Total	Ba	Be	Sr	V	Y
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	g	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.1	0.1	0.5	0.1	0.05		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.005	0.01	0.01	2	1	2	5	1
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP
OREAS 70b (4 Acid) Meas																							
OREAS 620 (4 Acid) Meas																							
OREAS 620 (4 Acid) Meas																							
OREAS 620 (4 Acid) Meas																							
OREAS 753 (4 Acid) Meas																							
OREAS 753 (4 Acid) Meas																							
1309459 Dup																							
1309218 Split PREP DUP	12	1.8	< 0.1	< 0.5	0.7	0.07	1.820	74.36	13.25	0.97	0.04	0.22	0.56	4.44	3.66	0.034	0.03	98.33	851	1	111	< 5	7
Method Blank								0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01		< 2	< 1	< 2	< 5	< 1
Method Blank								0.01	< 0.01	0.01	< 0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.005	< 0.01		< 2	< 1	< 2	< 5	< 1
Method Blank	< 5	< 0.1	< 0.1	< 0.5	< 0.1	< 0.05	1.000																
Method Blank																							
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Analyte Symbol	Zr	Ag	Bi	Cd	Cu	Mo	Ni	Pb	S	Zn	Ga	Nb	Rb	Sn	LOI
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%
Detection Limit	2	0.5	2	0.5	1	2	1	5	0.001	1	5	1	2	5	
Analysis Method	FUS-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	PPXRF	PPXRF	PPXRF	PPXRF	GRAV
NIST 694 Meas															
GBW 07113 Meas	408														
STSD-2 Meas												29	106	7	
DR-N Meas											17	8	67	7	
SY-4 Meas															
BIR-1a Meas	16														
OREAS 101b (4 Acid) Meas					467	21	10	22							
OREAS 101b (4 Acid) Meas					396	20	8	19							
OREAS 101b (4 Acid) Meas					437	20	9	22							
OREAS 98 (4 Acid) Meas		40.2	76		> 10000			289	15.9	1310					
OREAS 98 (4 Acid) Meas		45.1	46		> 10000			312	15.4	1430					
OREAS 98 (4 Acid) Meas		40.8	41		> 10000			305	14.4	1330					

Analyte Symbol	Zr	Ag	Bi	Cd	Cu	Mo	Ni	Pb	S	Zn	Ga	Nb	Rb	Sn	LOI
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%
Detection Limit	2	0.5	2	0.5	1	2	1	5	0.001	1	5	1	2	5	
Analysis Method	FUS-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	PPXRF	PPXRF	PPXRF	PPXRF	GRAV
DNC-1a Meas	38										12	2	< 2		
OREAS 13b (4-Acid) Meas		1.0			2340	8	2040		1.11	144					
OREAS 13b (4-Acid) Meas		1.0			2350	10	2010		1.20	139					
OREAS 13b (4-Acid) Meas		0.9			2390	10	2020		1.13	138					
OREAS 904 (4 Acid) Meas		0.5	< 2		6480	2	43	14	0.064	28					
OREAS 904 (4 Acid) Meas		< 0.5	7		5840	< 2	41	12	0.062	27					
OREAS 904 (4 Acid) Meas		1.1	2		6280	2	46	12	0.065	28					
OREAS 45d (4-Acid) Meas			5		371	< 2	229	15	0.042	46					
OREAS 45d (4-Acid) Meas			< 2		393	< 2	237	20	0.043	48					
OREAS 45d (4-Acid) Meas			< 2		386	< 2	231	21	0.043	44					
OREAS 905 (INAA) Meas															
OREAS 96 (4 Acid) Meas		10.8	7		> 10000			86	4.04	442					
OREAS 96 (4 Acid) Meas		11.3	10		> 10000			84	4.10	444					
Oreas 77b (4 Acid) Meas		1.5	< 2	0.7	3420		> 10000	77		191					
Oreas 77b (4 Acid) Meas		1.3	< 2	0.9	3340		> 10000	63		187					
Oreas 72b (4 Acid) Meas		< 0.5	< 2	< 0.5	230	4	6390	14	1.40	94					
W-2b Meas	92														
OREAS 681 (4 Acid) Meas		< 0.5	< 2		251	< 2	435	< 5	0.102	77					
OREAS 681 (4 Acid) Meas		< 0.5	< 2		281	< 2	455	5	0.101	80					
OREAS 147 (4 Acid) Meas			9		298	5	22	25	0.017	148					
OREAS 147 (4 Acid) Meas			10		317	6	24	28	0.029	153					
Oreas 521 (4 Acid) Meas		1.1	7		5760	119	73	8	1.69	26					
Oreas 521 (4 Acid) Meas		1.1	5		5680	135	68	15	1.74	25					
Oreas 521 (4 Acid) Meas		1.1	2		5920	144	70	5	1.64	24					
OREAS 70b (4 Acid) Meas		< 0.5	< 2	< 0.5	52	2	1980	11	0.286	102					
OREAS 620 (4 Acid) Meas		40.1	< 2	161	1670	9	14	> 5000	2.60	> 10000					
OREAS 620 (4 Acid) Meas		39.3	< 2	160	1720	9	15	> 5000	2.49	> 10000					
OREAS 620 (4 Acid) Meas		41.6	< 2	166	1830	10	15	> 5000	2.59	> 10000					
OREAS 753 (4 Acid) Meas			< 2	1.6	19	3	12	7	0.010	96					
OREAS 753 (4			< 2	1.5	18	4	12	7	0.013	95					

Analyte Symbol	Zr	Ag	Bi	Cd	Cu	Mo	Ni	Pb	S	Zn	Ga	Nb	Rb	Sn	LOI
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%
Detection Limit	2	0.5	2	0.5	1	2	1	5	0.001	1	5	1	2	5	
Analysis Method	FUS-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	PPXRF	PPXRF	PPXRF	PPXRF	GRAV
Acid) Meas															
1309459 Dup		< 0.5	< 2	< 0.5	21	< 2	55	< 5	0.005	84					
1309218 Split PREP DUP	38	< 0.5	< 2	< 0.5	2	2	3	15	0.010	36	14	18	83	< 5	0.76
Method Blank	< 2														
Method Blank	< 2														
Method Blank															
Method Blank		< 0.5	< 2	< 0.5	< 1	< 2	< 1	< 5	0.003	< 1					
Method Blank		< 0.5	< 2	< 0.5	< 1	< 2	< 1	< 5	0.002	< 1					
Method Blank		< 0.5	< 2	< 0.5	< 1	< 2	< 1	< 5	0.002	< 1					
Method Blank		< 0.5	< 2	< 0.5	< 1	< 2	< 1	< 5	0.003	< 1					
Method Blank		< 0.5	< 2	< 0.5	< 1	< 2	< 1	< 5	0.003	< 1					
Method Blank		< 0.5	< 2	< 0.5	< 1	< 2	< 1	< 5	0.002	< 1					
Method Blank		< 0.5	< 2	< 0.5	< 1	< 2	< 1	< 5	0.002	< 1					
Method Blank		< 0.5	< 2	< 0.5	2	< 2	< 1	< 5	0.002	< 1					
Method Blank		< 0.5	< 2	< 0.5	< 1	< 2	< 1	< 5	0.002	< 1					
Method Blank		< 0.5	< 2	< 0.5	< 1	< 2	< 1	< 5	0.002	< 1					

Total costs

2022 Prospecting and sampling program on Swain Lake property

Prospecting and sampling survey

Inv #	Inv ref	Inv Amt	Pro rata	Applicable cost	Inv date	Inv company	Category	Details
1	22INV2119	\$ 66,042.40	100%	\$ 66,042.40	29-Aug-22	Fladgate	Contractor/consultant fees	Contractor fees to prospect and collect samples (all-in cost of survey)

				Total	\$ 66,042.40			
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Associated Costs

1	14515	\$ 625.00	100%	\$ 625.00	12-Sep-22	Actlabs	Assays	Assays: 25 samples @ \$25/sample
2	14582	\$ 325.00	100%	\$ 325.00	3-Oct-22	Actlabs	Assays	Assays: 13 samples @ \$25/sample
3	14675	\$ 1,950.00	100%	\$ 1,950.00	24-Oct-22	Actlabs	Assays	Geochemical analyses: 25 samples @ \$78/sample
4	177667	\$ 1,014.00	100%	\$ 1,014.00	21-Nov-22	Actlabs	Assays	Geochemical analyses: 13 samples @ \$78/sample
5	22INC2191	\$ 4,500.00	100%	\$ 4,500.00	30-Nov-22	Fladgate	Report/Map	

				Total	\$ 8,414.00			
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Total cost \$ 74,456.40

Pivot Table assigning costs

Row Labels	Sum of Applicable cost	Unit cost	Details
Assays	\$ 3,914.00	\$103/sample	Assay + litho
Contractor/consultant fees	\$ 66,042.40	As billed	
Report/Map	\$ 4,500.00	\$/day	
Grand Total	\$ 74,456.40		

Pro Rata Calculations

2022 Prospecting and sampling program on Swain Lake property

\$ 74,456.40

Pro-rated total:

* Pro rata factor calculated as proportion of work on each claim (Fladgate Table 9-3)

\$74,456

Claims surveyed	TITLE_TYPE	Area (ha)	Pro rata factor*	Pro rata cost	Rounded for entry
617179	MCMC	443.1	17.6%	\$ 13,104.33	13,105.00
617180	MCMC	503.6	54.3%	\$ 40,429.83	40,430.00
626175	SCMC	20.1	3.6%	\$ 2,680.43	2,680.00
626176	SCMC	20.1	1.6%	\$ 1,191.30	1,191.00
626178	SCMC	20.1	0.5%	\$ 372.28	372.00
626180	SCMC	20.1	0.4%	\$ 297.83	298.00
626181	SCMC	20.1	0.6%	\$ 446.74	447.00
626182	SCMC	20.1	1.5%	\$ 1,116.85	1,117.00
626186	SCMC	20.1	2.5%	\$ 1,861.41	1,861.00
626188	SCMC	20.1	4.9%	\$ 3,648.36	3,648.00
626189	SCMC	20.1	3.9%	\$ 2,903.80	2,904.00
626193	SCMC	20.1	4.2%	\$ 3,127.17	3,127.00
626196	SCMC	20.1	0.5%	\$ 372.28	372.00
626201	SCMC	20.1	0.2%	\$ 148.91	149.00
626204	SCMC	20.1	0.1%	\$ 74.46	74.00
626212	SCMC	20.1	2.8%	\$ 2,084.78	2,085.00
626218	SCMC	20.1	0.8%	\$ 595.65	596.00
		1833	100.0%	\$ 74,456.40	\$ 74,456.00