

We are committed to providing [accessible customer service](#).

If you need accessible formats or communications supports, please [contact us](#).

Nous tenons à améliorer [l'accessibilité des services à la clientèle](#).

Si vous avez besoin de formats accessibles ou d'aide à la communication, veuillez [nous contacter](#).

Assessment Report on Drilling Conducted
On the Leckie Property,
Progenitor Metals



Temagami, Ontario
Sudbury Mining District

UTM Zone 17 NAD83 Projection
Centred on 5216200N to 591300N

Work Conducted on Patents
PAT-27645 (WS13) and PAT-27646 (WS14)
Between May 15th, 2019 and Sept 26, 2019

Report Prepared by

M. Ethier, MSc | Hinterland Geoscience & Geomatics

TABLE OF CONTENTS

TABLE OF CONTENTS.....	2
List of Figures	3
List of Tables	3
List of Appendices.....	4
1. Introduction	5
1.1 Summary	5
2. Property Description, Location & Access.....	6
3. Property History.....	7
4. GEOLOGICAL SETTING AND MINERALIZATION	11
4.1 Geological Setting	11
4.2 Metavolcanic Rocks.....	11
4.3 Intrusive Rocks	12
4.4 Huronian Supergroup.....	13
4.5 Nipissing Diabase	15
4.6 Structure	15
4.7 Mineral Deposits	15
5. Property Geology and Mineralization.....	16
6. Drilling & Core Sampling Program 2019	17

7.0	AUTHORS QUALIFICATIONS	21
8.0	SELECTED REFERENCES	22

List of Figures

Figure 1.	Regional Location Map	6
Figure 2	Leckie project location, claims, and access to the project along Highway 11 in Northern Ontario, near the town of Temagami.	7
Figure 3	Little Dan or Zone 2 muck pile	8
Figure 4	Stroud inferred "probable ore"	8
Figure 5	Leckie Mine Workings (1985 to 1996 drilling) Gold Assays (g/t) Looking Southeast (127 degrees Azimuth).....	10
Figure 6	Geology map of Progentiro Property Block (after Ayer et al. 2006)	13
Figure 7	Legend for Figure 6 (after Ayer et al., 2006).	14
Figure 8	Leckie Zones and 2019 drilling overlain Geology Map 2323.....	16
Figure 9	Drill Holes Location/Mining Cells and Patents.....	18
Figure 10	Leckie project location, patents on which work for this assessment report was conducted, and drill hole traces showing the 2019 drilling program carried out by Progenitor Metals.....	19
Figure 11	LEK-19-01 drill set-up	20
Figure 12	Historical Drill Core and 2019 Drill Core Sample.....	20

List of Tables

Table 1	2017 sampling.....	9
Table 2	1988-89 summary of best intersection.....	10
Table 3	Drill Hole Locations and General Info	17

List of Appendices

Appendix A. Drill hole logs and Sections	23
Appendix B. Assay Certificates	51

1. Introduction

Progenitor Metals Leckie Project is located near the town of Temagami in northeastern Ontario, approximately 100 km north of North Bay. Progenitor Metals is exploring for precious metals on blocks of contiguous mining patents and mining claims covering parts of six townships in the historic Temagami Mining Camp: Best, Chambers, Strathy, Cassels, Briggs and Srathcona , as shown in Figure 1 & 2.

This report details the 2019 drilling program, the accompanying drill core sampling program, the goal of which were the refinement and expansion of previous preliminary geological and mineralization models to build a maiden resource model for the Leckie project. This data correlation and further interpretation has resulted in a better understanding of the area geology, mineralization, and cross-cutting relationships, and will supplement metallogenic knowledge in the region to direct future drilling programs.

Field work was conducted between May 15th, 2019 and Sept 26, 2019 for a total of approximately 20 days, by rig and core logging geologists T. Keast, M. Ethier , and geotech O. Renson. A total of 532 drill split core samples were submitted for precious metals to ALS in Sudbury, Ontario (Appendix A). Asabanaka Drill Service was the drilling contractors that carried out the 511m of drilling. All required permits were obtained to perform this work: permit number C30-66A/D from TC Energy was obtained for crossing the natural gas pipelines.

The costs of the labour described above, plus the direct costs of planning the work, writing and producing this report are filed herein as assessment work. This work will help inform future exploration efforts by Progenitor Metals, and others working in the Temagami mining camp.

1.1 Summary

The 2019 drilling program confirmed the presence of gold associated the major veins systems, and a lesser component of base metal sulphides on the property.

Further work for Progenitor Metals on the property could involve continued drilling with a focus on structures, detailed lithology, and alteration mineralogy to test the possible relationship between structures and mineralization, and to test whether or not there is a sufficiently strong

alteration mineralogical signature or vector to ore. Detailed lithological logging would allow for more precise correlation between drill holes and could help define the geometry and structure of the deposit, and help refine drilling programs and increase target intercept success rates.

2. Property Description, Location & Access

The Leckie Gold Property property is located west of Highway 11, 4.9 kilometres north of the town of Temagami in Strathy Town. The Leckie property is accessed via TransCanada Highway 11 that crosses the property in a north-south direction. As the Temagami area has a long history of mining and exploration, skilled labour and the necessary supplies are readily available in Sudbury and North Bay as well as in the TemiskamingShores/Cobalt and Temiscamingue region of Quebec. The Ontario Northland railway nearby links North Bay with the rest of northeastern Ontario



Figure 1. Regional Location Map

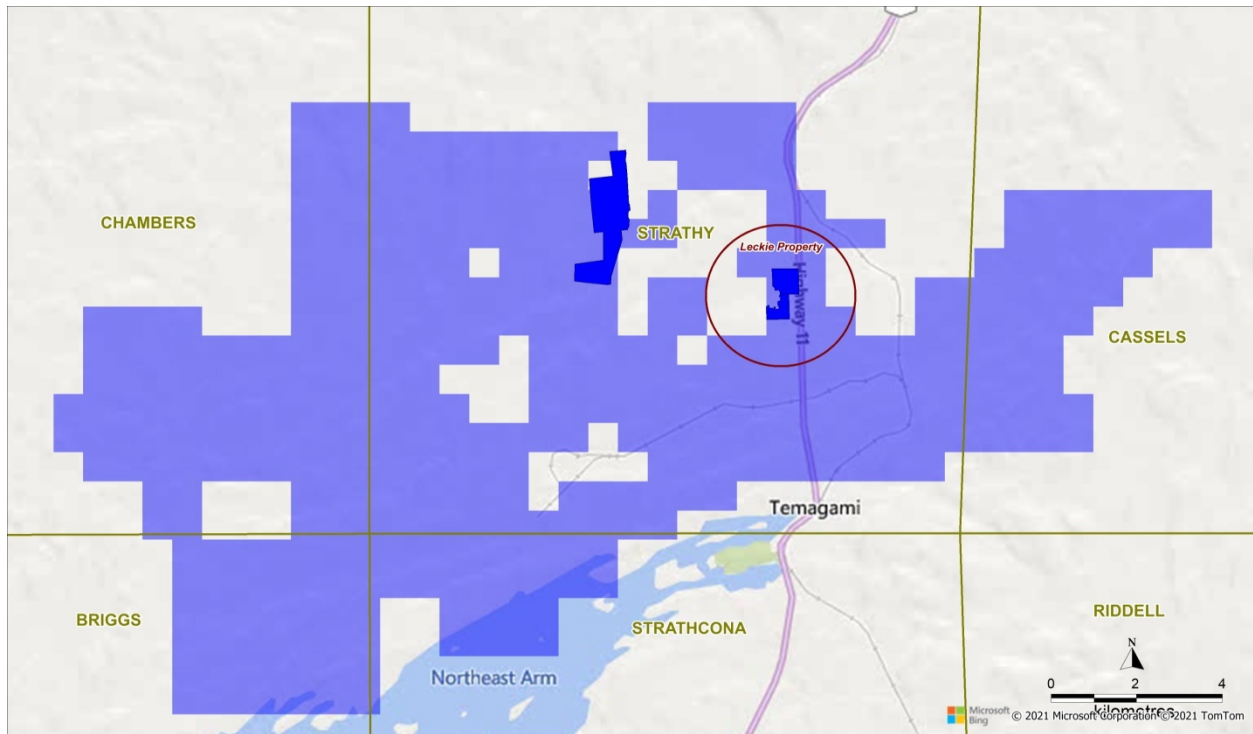


Figure 2 Leckie project location, claims, and access to the project along Highway 11 in Northern Ontario, near the town of Temagami.

3. Property History

Gold first discovered in 1900 at the Leckie Deposit in an area known as the Little Dan (Zone #2). In 1909 a number of shafts and adits were extended into the mineralization at several locations on the property, the exact amount of mineralization extracted is unknown.

In 1933 Manitoba and Eastern Mines Ltd sank a 2-compartment shaft to the 325-foot level on newly discovered Zone #1 or Main Zone. Levels established on 100, 200, 300, 400, and 500-foot intervals below the surface. Approximately 5,000 ft of drifts and cross cut were completed. No production data available, but remnants of this development muck from the Leckie underground is stored on the surface next to the old shaft and was sampled by Temagami Gold in the spring of

2017 (see below).



Figure 3 Little Dan or Zone 2 muck pile

The mine was abandoned in 1937 and remained dormant until 1985 when Stroud Resources / Lacana Mining Corporation acquired the project. They conducted ground geological and geophysical surveys that included VLF, magnetics, geological mapping, and trenching. Five phases of diamond drilling were completed from 1985 to 1988, mostly targeting the Main Zone for a total of 44,011 feet. In December of 1988 to January of 1989, an additional 10,474 feet of diamond drilling was completed on Zone #1. Much of the drill core from this project still remains until today and is stored at the Progenitor core shack location. This drilling demonstrated that the mineralization extends below the 1000-foot level, and is open to depth and the south. No other addition deep holes have been completed.

From the mid-1990s until today no other work programs have been completed on the Leckie Project by Stroud.

In 2008 Stroud Reported a calculated "probable ore" (as defined in former National Policy 2A ("NP 2A") of the Canadian Securities Administrators and equivalent to an "indicated mineral resource" under National Instrument 43-101 ("NI 43-101")) of 348,240 tons (315,918 tonnes)

grading 0.203 oz/t gold (6.96 g/t) and "possible ore" (as defined in former NP 2A and equivalent to an "inferred mineral resource" under NI 43-101) of 57,237 tons (51,925 tonnes) grading 0.173 oz/t gold (5.93 g/t) for the property. This results in a global resource of 405,477 tons @ 0.199 oz/ton (**367,842 tonnes @ 6.82 g/t**) or **80,595 oz of gold** (see Figure 4). Over the years Stroud allowed the land position to collapse and they maintained only two mining patents over the discovery outcrop of Leckie Mine (WS13 and WS14).

In the summer of 2016 Temagami Gold staked the claims over Arsenic Lake (Claim = 4080190) and to the south of Patent WS14 (claim = 4080189). They then controlled the down dip extension of the Leckie Mineralization of Zone #1 and Zone #2. (See Figure 2.0 and Figure 3.0).

In the spring of 2017 Temagami Gold retained the services of a local construction company and begin a program of road rehabilitation and brush clearing in and around the Leckie Mine. During the course of this program, the main shaft from 1935 was uncovered, and many of the mine workings from the early 1900s were rediscovered. This gave the geologists of Temagami Gold the opportunity to resample many of this workings, showings, and surface stockpiles. One of the samples yielded very high bonanza gold grades of up to 2.674 oz/ton or 91.68 g/t gold (see table below for results of 2017 sampling).

Table 1 2017 sampling

Sample Number	Name	East	North	Au oz/ton	Au g/t	Ag oz/ton	Ag g/t
LK - Pipe	Pipeline Showing	591350	5216437	2.674	91.68	0.88	30.1
LK Zone 1	Main or Zone #1	591300	5216305	0.410	14.06	1.39	47.59
26503	Little Dan or Zone #2	591196	5215898	0.058	1.99	0.18	17.21
26504	Robins Egg Muck Pile	591332	5216183	0.190	6.51	0.07	2.47

NOTE: UTM NAD 83 Zone 17

In the summer of 2017, Temagami Gold came to terms with Stroud Resources for the 100% acquisition of the Patent WS13 and Patent WS-14. Now Progenitor Metals controls 100% of the Temagami Gold Leckie Mine and surrounding deposits.

Progenitor Metals via Temagami Gold has acquired the drilling summary reports completed by Stroud Resources in 1989. In this report, they summarize the results of the winter drilling campaign of 1988-1989. Below is a summary table of the best intersections. It should be noted that some of the best holes (109 and 112) of the program intersected mineralization below the 1000-foot (300 m) level with widths of 1.5 to 4.0 metres and grades of 4 to 7 g/t. gold. The

Table 2 1988-89 summary of best intersection

DDH	Au (oz/t)	Width (feet)	Au (g/t)	Width (m)
88-109	0.126	14.4	4.32	4.39
88-110	0.162	4.7	5.55	1.43
88-111	0.106	11.5	3.63	3.51
88-112	0.229	4.8	7.85	1.46
89-113	0.142	13.8	4.87	4.21
89-114	0.165	13.1	5.66	3.99
89-117	0.462	6.6	15.84	2.01
89-118	0.153	6.3	5.24	1.92
89-119	0.108	7.5	3.70	2.29
89-120	0.089	5.7	3.05	1.74

Stroud long section in Figure 5 illustrates that the mineralization is open to depth in all directions. Moreover, very good results were also obtained south along strike from the Main Zone drilling. Hole 117 returned results of greater than 15 g/t over 2 metres, indicating that there

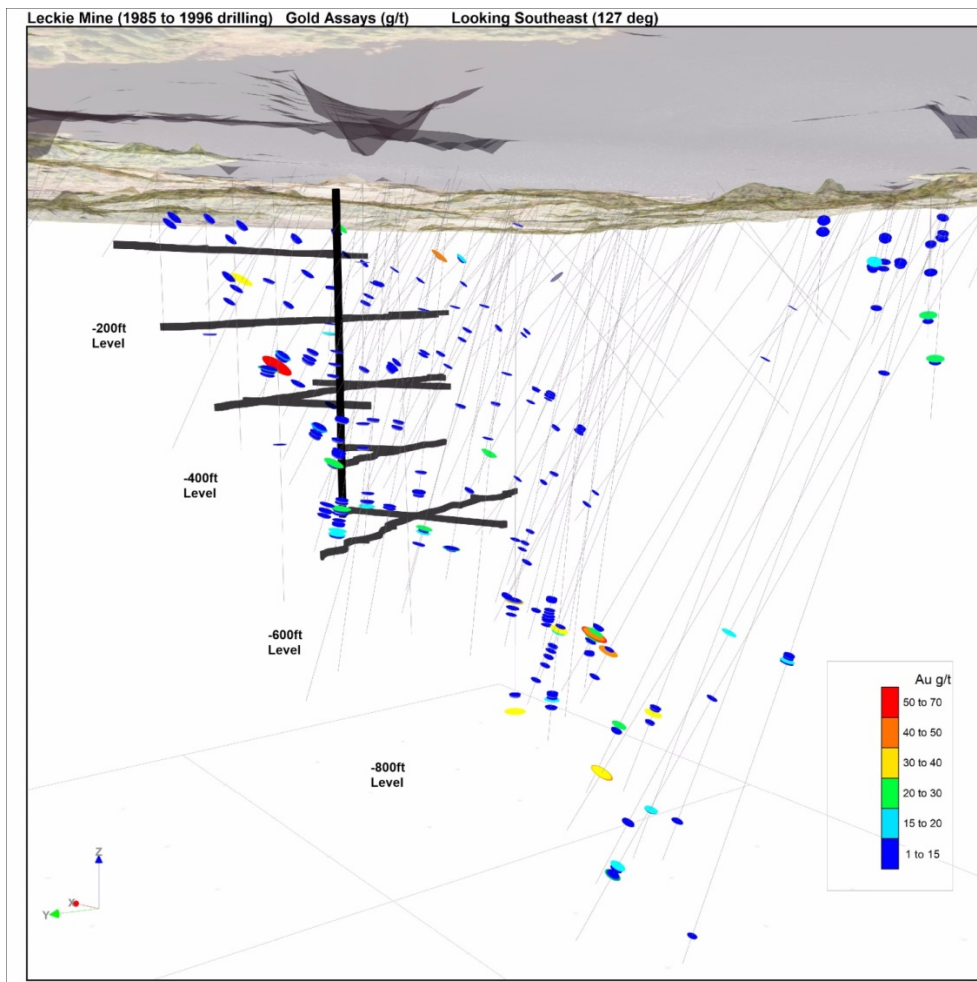


Figure 5 Leckie Mine Workings (1985 to 1996 drilling) Gold Assays (g/t) Looking Southeast (127 degrees Azimuth)

is a new zone developing south of the Main Zone that is open along strike and to depth. The fact that both these zones are open along strike and to depth, and that there are other targets containing economic levels of gold.

4. GEOLOGICAL SETTING AND MINERALIZATION

4.1 Geological Setting

The Property encompasses most of the Temagami greenstone belt, a roughly triangular window of Archean Supracrustal rocks overlain by sediments of the Proterozoic Huronian Supergroup. The Temagami greenstone belt averages about 13 km across and is about 29 km long. Metavolcanic and metasedimentary rocks in the Temagami Greenstone Belt strike east to northeast and have been folded about the east-sticking Tetapaga syncline.

4.2 Metavolcanic Rocks

The Chambers-Briggs assemblage consists of massive, pillowed and coarse-grained feldspar-megacrystic basalts at the base, overlain by calc-alkaline, effusive and pyroclastic andesite flows, coarse grained (<100 cm), resedimented, andesitic debris deposits, and dacite and effusive rhyolite flows and subaqueous pyroclastic flows. Two discrete iron formations occur at the top of the Chambers-Briggs assemblage. A thinner (< 25 m) unit sulphide facies (pyrite-pyrrhotite) lies stratigraphically below a thicker unit (100 m) of oxide facies (magnetite-hematite) iron formation. On the south limb of the Tetapaga syncline, the oxide iron formation is interlayered with a turbiditic metasedimentary unit. On the north limb, a unit of ultramafic fragmental rock, magnesium-rich (12-20 %) flows and coarse-grained heterolithic fragmental rocks overlie the oxide facies iron formation.

The wedge-shaped Arsenic assemblage consists of steeply dipping, south-facing, iron-rich, massive, pillowed and coarse-grained, feldspar-megacrystic and variolitic tholeiitic basalt and andesitic to rhyolitic effusive flows and fragmental rocks. Vesicularity of the flow units increases from zero at the base of the unit to consistently greater than 10 % at the top of the assemblage. The intermediate to felsic metavolcanics rocks consist of andesitic effusive flows, commonly with flow top breccias and rhyolitic fragmental rocks interpreted to have been

deposited as subaqueous pyroclastic flows. The rhyolitic rocks have some geochemical characteristics of high-silica rhyolites associated with volcanogenic massive sulphide deposits. The intermediate to felsic metavolcanic rocks are overlain conformably by turbiditic metasedimentary rocks. Regionally continuous sulphide and oxide iron formation units are not observed in the Arsenic assemblage although thin, discontinuous sulphide-rich interflow units occur at the top of the assemblage. Unlike the Chambers-Briggs assemblage, resedimented andesitic debris flows are not abundant in the Arsenic assemblage.

Command assemblage consists of massive and pillowed iron-rich tholeiitic basalt. The assemblage occurs only in the core of the Tetapaga syncline. The strike and dip of the flows in within this assemblage are poorly constrained because of the absence of distinctive marker units. Contact relationships between the Command assemblage are not well constrained.

4.3 Intrusive Rocks

Coeval with the extrusion of the volcanic rocks was the emplacement of:

- 1) Layered pyroxenite-gabbro-anorthosite sills of tholeiitic affinity;
- 2) A layered dunite-peridotite-gabbro plug of komatiitic affinity; and,
- 3) Diorite and quartz diorite sills of calc-alkalic affinity.

Intrusive into the belt are the Chambers Batholith and the trondhjemite Strathlyand Batholith. The massive, microcline-megacrystic Spawning Lake Stock cuts across all stratigraphic and structural trends. Lamprophyre and pyroxenite dikes cut all Archean units but do not cut the Proterozoic units.

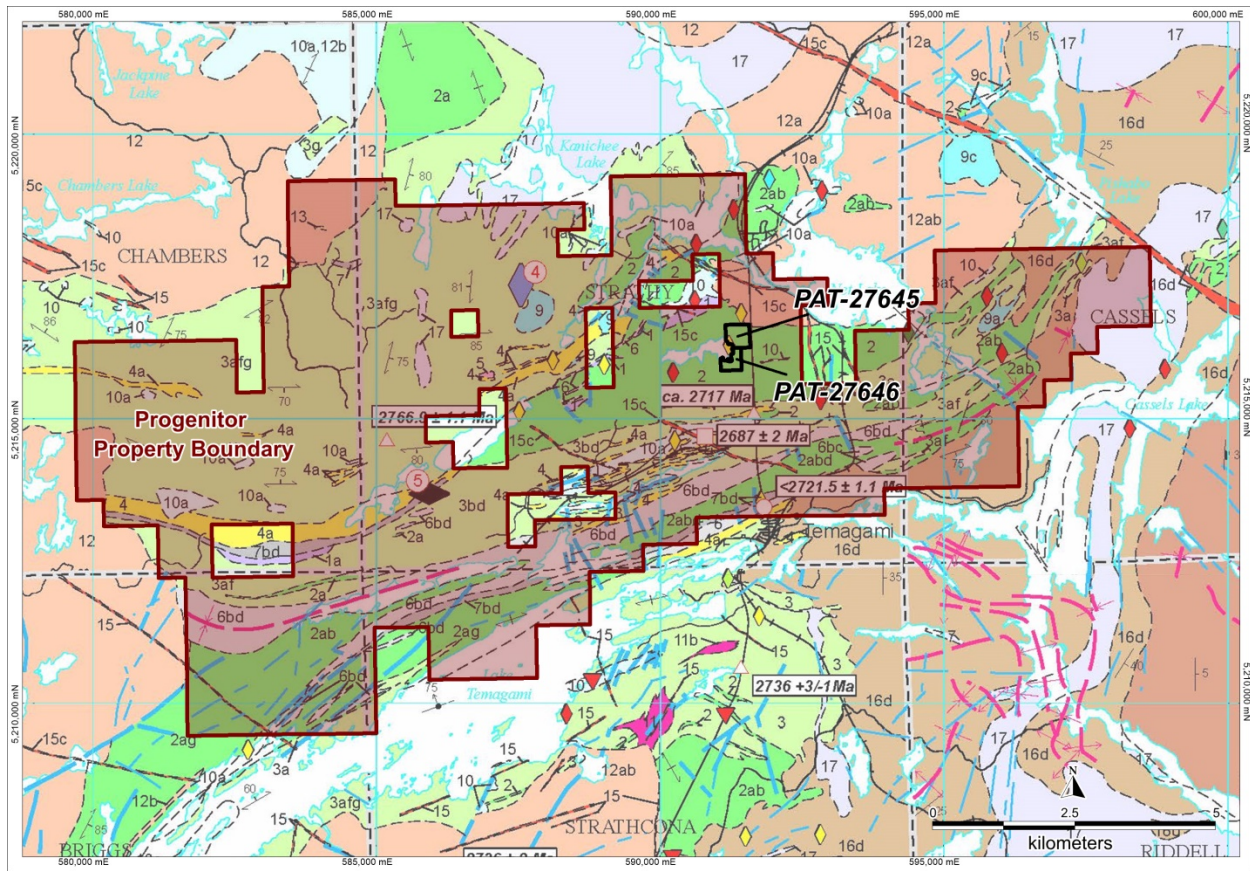


Figure 6 Geology map of Progentiro Property Block (after Ayer et al. 2006)

4.4 Huronian Supergroup

Rocks of the Southern Province are found within the Cobalt Embayment, a down-dropped crustalscale block that infilled with sediments in Paleoproterozoic time to form the Huronian Supergroup. The Huronian Supergroup represents an Early Proterozoic assemblage of sedimentary (cycles of conglomerate, siltstone and wacke, and arenite) and volcanic rocks (found only in the Elliot Group) deposited between 2450 Ma and 2219 Ma that rests nonconformably on Archean basement. Two of the formations are widespread in the study area: the Gowganda and Lorrain formations (in ascending order) of the Cobalt Group.

The Gowganda Formation reaches a thickness of 700 m in the Temagami area and comprises diverse sequences of clast- and matrix-supported conglomerate, pebbly wacke, wacke, siltstone, mudstone and arenite. The Gowganda Formation is the dominant component of the Huronian Supergroup west and southwest of the Temagami greenstone belt. The Lorrain Formation conformably overlies the Gowganda Formation. The Lorrain Formation is subdivided compositionally into 3 units: a basal feldspathic arenite; a middle less feldspathic arenite and conglomerate; and an upper, feldspar impoverished, arenite to quartz

arenite. Jaspilite clasts were described within the units of arenite in the middle member of the formation as well as hematitic sandstone in the uppermost member. The rocks of the hematitic sandstone member are red close to the contacts with the diabase dikes, indicating elevated concentrations of iron in the Lorrain Formation compared to the adjacent Gowganda Formation. Airborne magnetic data also distinguishes between the 2 formations: magnetic highs occur over the Lorrain Formation surrounded by magnetic lows associated with the Gowganda Formation. The strata have been little affected by deformation except by normal faults and large open folds. The metamorphic grade within the area ranges from sub- to low greenschist facies.

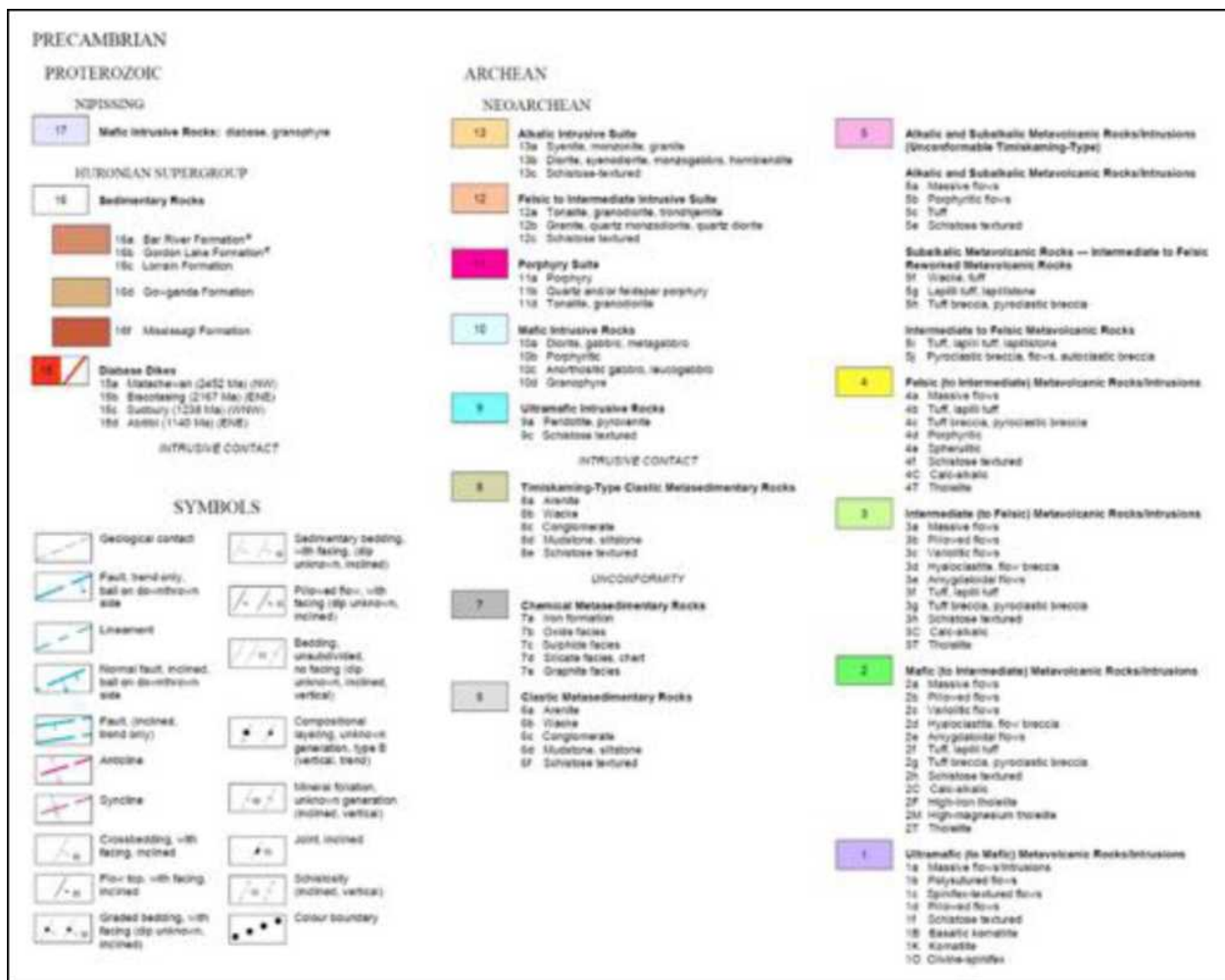


Figure 7 Legend for Figure 6 (after Ayer et al., 2006).

4.5 Nipissing Diabase

Nipissing Diabase mafic intrusive rocks in the Temagami survey area were emplaced 2200 Ma, typically forming dikes, sills or conical sheets in the Huronian Supergroup formations. The Nipissing Diabase is a medium-grained, massive, dark grey or greenish grey rock with a gabbroic or subophitic texture. Within the Superior and Southern provinces, the diabase is imprinted with a lower greenschist regional metamorphism. Mineralization associated with the Nipissing Diabase intrusions in the Temagami area consists mainly of quartz-carbonate vein deposits of silver, cobalt and nickel. The ore minerals include native metals, arsenides and sulpharsenides. Sulphides are present in only minor amounts.

4.6 Structure

Metavolcanic and metasedimentary rocks in the Temagami Greenstone Belt strike east to northeast and have been folded about the east-sticking Tetapaga syncline. All rocks have been metamorphosed to greenschist facies except adjacent to the late granitoids where amphibolite facies conditions were attained.

The development of penetrative foliation development varies from indistinct to intense. Early foliations have an easterly strike which parallels stratigraphic contacts, the axial plane of the Tetapaga syncline, and the margins to the Strathy - Chambers Batholith. Parallel to this earlier foliation are the Northeast Arm deformation zone and the Link Lake shear zone. The east striking foliation, the Tetapaga syncline and the paired Northeast Arm deformation zone and the Link Lake shear zone are interpreted to have developed contemporaneously. The later east- to northeast-striking Net-Vermillion Bay deformation zone and Tasse shear zone are characterized by oblique, sinistral, component of slip. Related shear fabrics cut the parts of the Strathy- Chambers Batholith and deflects the earlier east-striking foliation. A later north-striking foliation fold the earlier east-striking foliation and the northeast-striking foliation.

4.7 Mineral Deposits

The rocks comprising the Temagami Greenstone Belt represent the most prospective geology on the Property.

Arsenopyrite, pyrrhotite, chalcopyrite, sphalerite, galena and auriferous pyrite concentrations, in both altered zones and quartz veins and are associated with:

- 1) A northeast-striking segment of the Net-Vermilion deformation zone; and,
- 2) Shear zones perpendicular to the southeastern lobe of the Strathy -Chambers Batholith in Strathy Township.

The potential also exists for the discovery of copper-rich mineralization similar to that of the previous producing Temagami Copperfields Mine located 24 km east of the town of Temagami.

A substantial of the rocks on the Leckie property belong to the mafic metavocanics. Rocks classified in the field as mafic metavolcanics are greyish-green to dark grey-green when fresh and pale grey to greenish-grey when weathered. The bulk of these rocks are massive or pillowed basaltic flows, but some coarse grained gabbroic sills are probably also present, and are particularly prominent to the east of Arsenic Lake. Massive flows are predominant in the northern part of the property, whereas pillowed flows are prevalent in the south. The selvages of pillows are commonly filled with highly brecciated and contorted hvaloclastic fragments. Variolitic metabasalt is associated with the pillowed flows and occurs in distinctive units, which may be used as "marker horizons". A number of small quartz-feldspar porphyry dykes injections are part of the sector. The porphyries are fine-grained, pale grey to lightgreen in color on the surface.

6. Drilling & Core Sampling Program 2019

Drilling at the Leckie property in 2019 was made up of one phase consisting of 5 drill holes, and

Table 3 Drill Hole Locations and General Info

Drill_Hole	X	Y	MSLHeight (EGM96)	Azimuth	Dip	Eoh	start	finish	Geological Logged
LEK-19-01	591177.406	5215982.82	312.396	124	-45	101	June 18, 2019	June 21, 2019	July 02-2019
LEK-19-02	591152.158	5215938.52	320.289	129	-45	104	June 21, 2019	June 23, 2019	July 03-2019
LEK-19-03	591137.497	5215894.3	327.159	123	-45	104	June 23, 2019	June 25, 2019	July 04-2019
LEK-19-04	591215.367	5216340.69	310.393	50	-45	101	June 26, 2019	June 28, 2019	July 05-2019
LEK-19-05	591198.614	5216382.54	310.019	35	-45	101	June 28, 2019	June 30, 2019	July 06-2019

Progenitor drilled a total of 511 meters of core and submitted 241 half split drill core samples, and 25 QA/QC samples to ALS in Sudbury, Ontario for base- and precious-metal as well as major and trace element analysis (Appendix A). The drill core was logged for recovery, RQD (rock quality designation), and joints and fractures by a geo-technician, and then logged in detail for lithology, alteration, structures, and mineralization by the geologist, and then sampled.

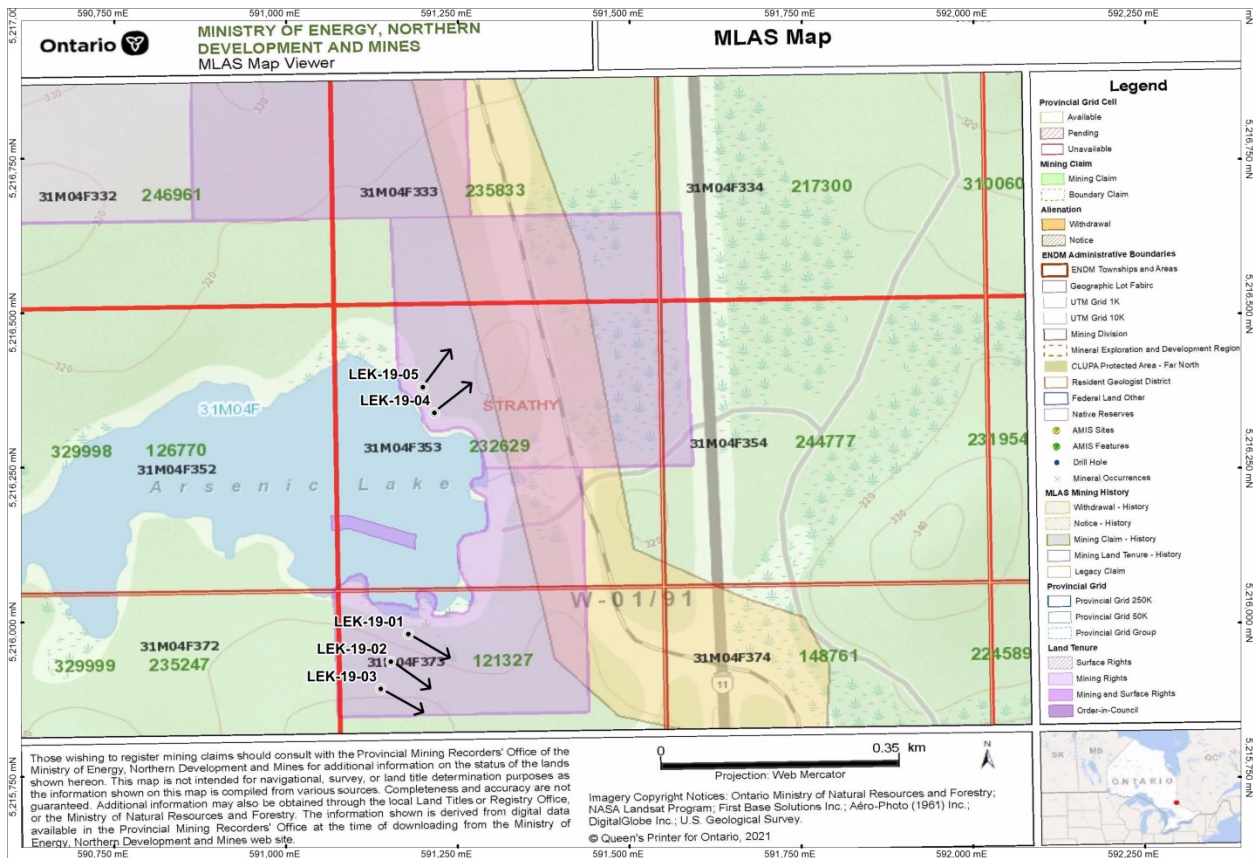


Figure 9 Drill Holes Location/Mining Cells and Patents

Samples were taken in all drill holes at approximately 1 meter intervals, taking into account the presence of metals, structures, and lithological boundaries. Core was cut with a rock saw by the cutters, and samples were sent via land to the ALS laboratory in Sudbury. Analyses for gold and silver were done by fire assay (FA) with with gravimetric finish.

The 2019 drilling program confirmed the presence of gold associated the major As veins systems, and a lesser component of base metal sulphides on the property.

Further work for Progenitor Metals on the property could involve continued drilling with a focus on structures, detailed lithology, and alteration mineralogy to test the possible relationship between structures and mineralization, and to test whether or not there is a sufficiently strong alteration mineralogical signature or vector to ore. Detailed lithological logging would allow for more precise correlation between drill holes and could help define the geometry and structure of the deposit, and help refine drilling programs and increase target intercept success rates.

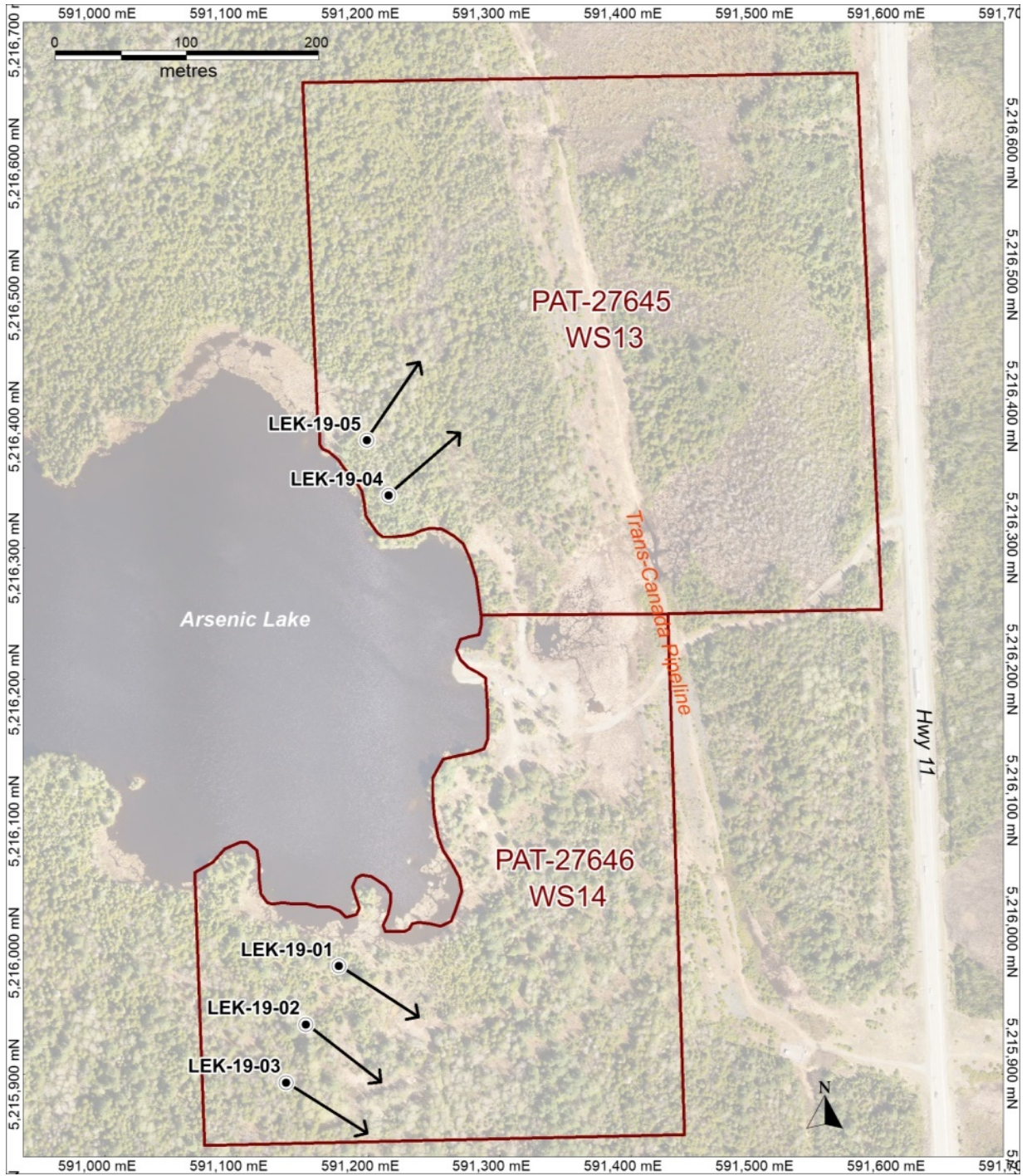


Figure 10 Leckie project location, patents on which work for this assessment report was conducted, and drill hole traces showing the 2019 drilling program carried out by Progenitor Metals.



Figure 11 LEK-19-01 drill set-up



Figure 12 Historical Drill Core and 2019 Drill Core Sample

7.0 AUTHORS QUALIFICATIONS

I, Martin Ethier, M.Sc., P.Geo. author of this report entitled “Assessment Report on Drilling Conducted On the Leckie Property, Progenitor Metals.” prepared for Progenitor Metals Corp. do hereby certify that:

I have been working since 2000 as a geologist, and remote sensing-GIS data integration specialist in the mining industry on a variety of properties. I have been a consulting geologist since 2002 with Hinterland Geoscience & Geomatics – 620 Brewster St., Haileybury, Ontario P0J 1K0.

I graduated with a Bachelor of Arts from Mount Alison University of Sackville New Brunswick (1997), majoring in Geography, and minors in Geology as well as Environmental Studies. In addition, I completed an intensive Post Graduate Advanced Diploma in Remote Sensing and Geographic Information systems from the Centre of Geographic Sciences (COGS) in Lawrencetown (1998), Nova Scotia. Furthermore, I obtained a Master of Science in Geology from Acadia University in Wolfville (2001), Nova Scotia.

I am a professional Geologist and a member of “Ordre des Géologues du Québec” (Member #: 1520), Canada.

I have worked for the last 20 years as a geologist, and remote sensing-GIS data integration specialist in the mining industry on a variety of exploration properties such as diamond bearing kimberlites, silver cobalt deposits, graphite, gold, and Ni-Cu-PGE. In particular I have worked on gold exploration projects in the Abitibi (Ontario/Quebec) Porcupine/Destor, Cadillac Larder Areas, Beardmore Geraldton greenstone belt as well as the Temagami Greenstone belt, during which time I have used applied geology, applied geophysics and applied geochemistry•

I am the author of this Report and as such accept responsibility for the accuracy and the content of the information in this report.

To the best of my knowledge, information, and belief, the Technical Report for which I am responsible contains all scientific and technical information that is required to be disclosed to make the Assessment Report not misleading.

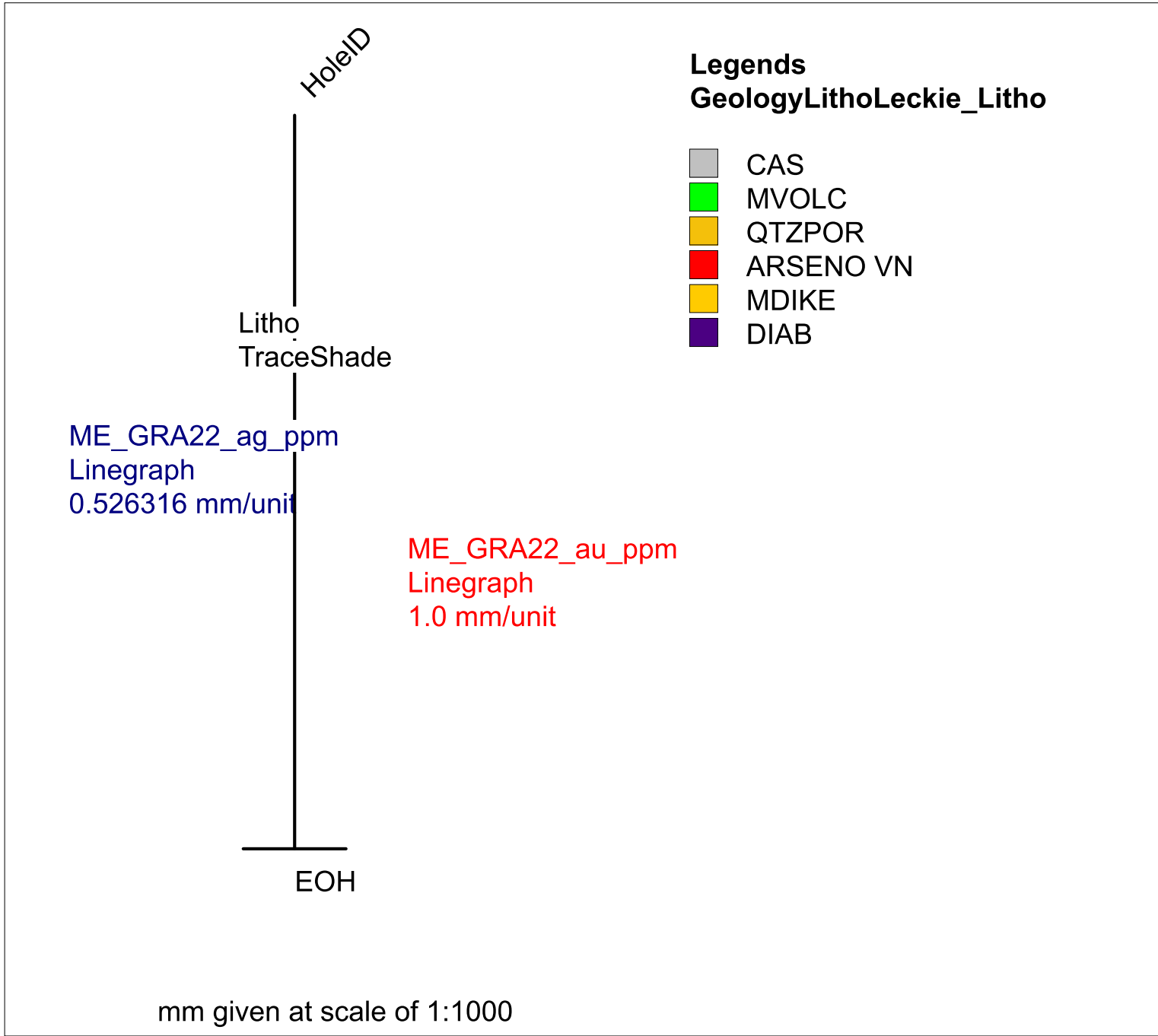
Signed: “Martin Ethier”

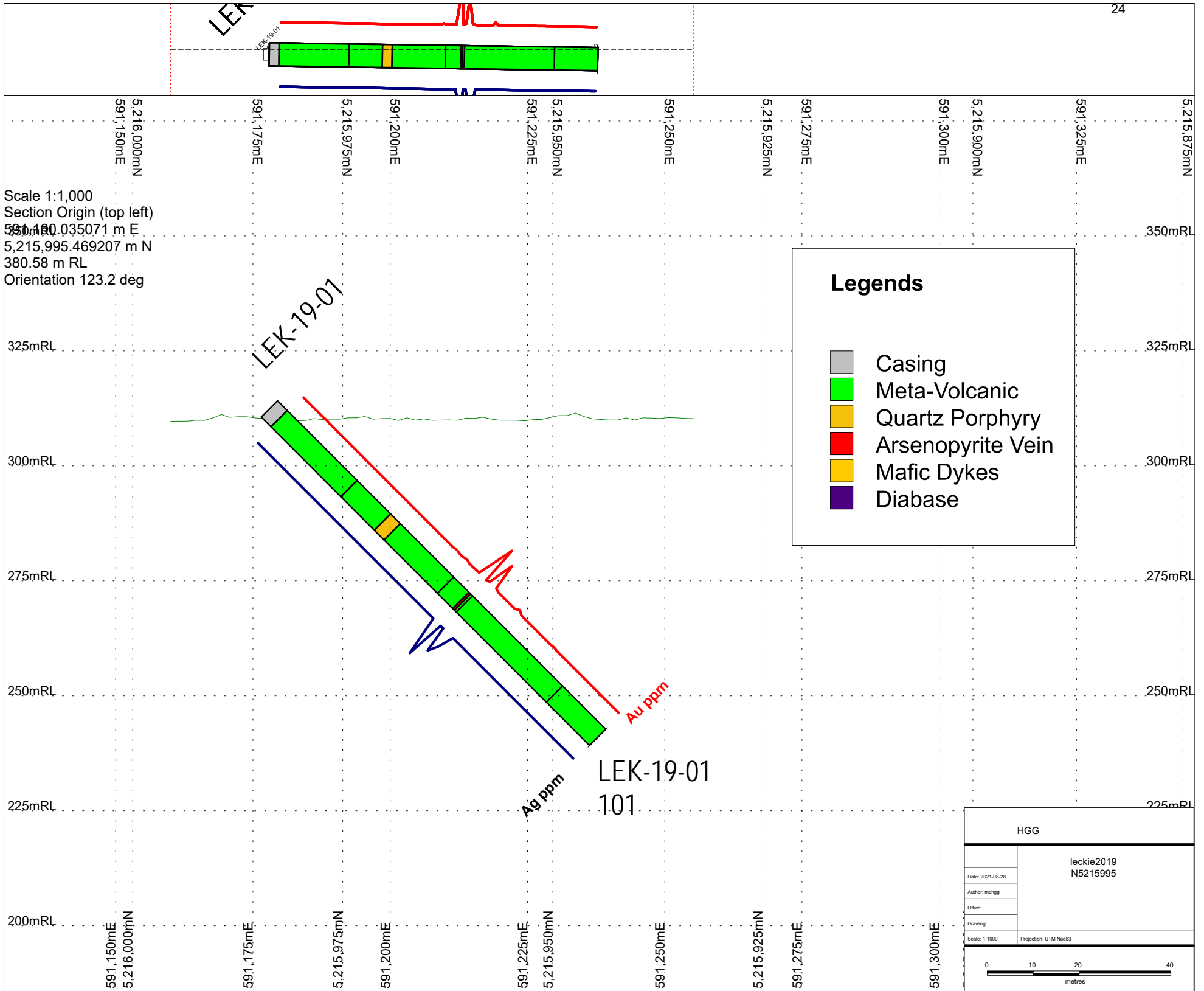
Original Signed and sealed

Martin Ethier, P.Geo.

8.0 SELECTED REFERENCES

- Ayer J.A., Chartrand, J.E., Grabowski, G.P.D., Josey, S., Rainsford, D., Trowell, N.F., 2006. Geological compilation of the Cobalt-Temagami area, Abitibi greenstone belt. Ontario Geological Survey, Preliminary Map P.3581, scale 1:100 000.
- Ayer, J.A., Chartrand, J.E., Grabowski, G.P.D., Josey, S., Rainsford, D., and Trowell, N.F., 2007. GIS Compilation of the Cobalt-Temagami Area, Abitibi Greenstone Belt; Ontario Geological Survey, Miscellaneous Release—Data 214.
- Bennett, G., 1978. Geology of the Northeast Temagami Area, District of Nipissing; Ontario Geological Survey Report 163, 128 p. Accompanied by Maps 2323 and 2324, scale 1 inch to 2 miles.
- Cabri, L.J., Laflamme, G., and Stewart, J.M., 1973. Temagamite, A New Palladium-Mercury Telluride from the Temagami Copper Deposit, Ontario, Canada. *Canadian Mineralogist*, v. 12 p. 193-198.
- Colvine, A.C., 1974. The petrology, geochemistry and genesis of sulphide-related alteration at the Temagami Mine, Ontario. Unpublished Doctoral dissertation, The University of Western Ontario, London, Ontario.
- Franklin, J., 1967. The pyrite zone of the Temagami Mine of Copperfields Mining Company, Timagami, Ontario. Unpublished M.Sc. thesis, Carleton University, Ottawa, Ontario.
- Fyon, J.A., and Crocket, J.H., 1986. Exploration Potential for Base and Precious Metal Mineralization in Part of Strathy Township, Temagami Area; Ontario Geological Survey, Open File Report 5591, 46 p., 5 figures, and 7 maps in back pocket.
- Fyon, J.A., and O'Donnell, L., 1987. Metallogenic Studies in the Temagami Greenstone Belt, District of Nipissing; in Summary of Field Work and Other Activities 1987, Ontario Geological Survey, Miscellaneous Paper 137, p. 190-197.
- Fyon, J.A., Hrabi, R.B., and Maitland, W.M., 1988. Relationships between lithological, alteration, and structural features and precious-metal occurrences in the Temagami greenstone belt, District of Nipissing; in Summary of Field Work and Other Activities 1988, Ontario Geological Survey, Miscellaneous Paper 141, p. 212-218.
- Fyon, J.A., and Cole, S., 1989. Geology of part of the Temagami greenstone belt, District of Nipissing, including relationships between lithologic, alteration, and structural features and precious-metal occurrences; in Summary of Field Work and Other Activities 1989, Ontario Geological Survey, Miscellaneous Paper 146, p. 108-115.
- Jackson, S.L. and Fyon, J.A., 1992. The Western Abitibi Subprovince of Ontario; in *Geology of Ontario*, Ontario Geological Survey. Special Volume 4, Part 1, p. 405-484
- Ontario Geological Survey, 1991. Bedrock geology of Ontario, east central sheet; Ontario Geological Survey, Map 2543, scale 1: 1 000 000.
- Simony, P.S., 1964. Geology of Northwestern Timagami Area, District of Nipissing; Ont. Dept. Mines, GR28, 30 p. Accompanied by Map 2057, scale 1 inch to 2 miles.
- Smyk, M.C., Born, P. and Owsiki, L., 1997. Precambrian geology of Banting Township and the western part of Best Township; Ontario Geological Survey, Report 285, 53 p.





BHID	From	To	Litho	Comment
LEK-19-01	0	3.00	CAS	CASING- Overburden
LEK-19-01	3.00	24.50	MVOLC	Mafic Volcanic pillowed - Green fine grained. Well preserved flow textures including pillow selvages and intervals of flow breccia. Numerous short intervals 10-20cm wide with 1-5mm amygdules. H < 7 just able to scratch. Quartz carbonate stringers and fracture filling, < 1cm wide. Disseminated py 1-3% in fine cubes and disseminations. 20.0-20.25 local increase in pyrite, 3-5% concentrated around pillow selvages, conductive along 1 cm. 24.1-24.3 Grey fine grained quartz veins tr py. 26.5 - 26.8 Darker section of flows, weak foliation developed,
LEK-19-01	24.50	34.80	MVOLC	Mafic Volcanic flow breccia - Lighter green color, fine grained. 1 mm hairline fractures throughout . Rounded and angular flow breccia features, scattered narrow intervals with amygdules. H < 7 just able to scratch. Breccia at low angle to core axis. Down unit brecciation decreases, flow becomes massive in appearance.
LEK-19-01	34.80	37.80	QTZPOR	Quartz Porphyry - Distinct yellow color, sericitic in composition, not foliated. Distinct 1-2mm grey quartz phenocrysts, not strained. tr fine py disseminated. 1-3% qtz veins .5-1cm irregular.
LEK-19-01	37.80	54.20	MVOLC	Mafic Volcanic flow breccia - Lighter green color, fine grained. 1 mm hairline fractures throughout . Rounded and angular flow breccia features, scattered narrow intervals with amygdules. H < 7 just able to scratch. 37.8-39.4 fine grained massive interval of flow. 43.4-43.6 Broken blocky core. Pillow selvages developing down unit. 49.6-51.5 3-5% py,tr cpy in pillow selvages. Weakly conductive. 53.75-54.2 10-15% py in flow breccia matix.
LEK-19-01	54.20	58.90	MVOLC	Mafic Unit - Dark green massive flow, possible intrusion. Sharp upper contact 65 deg to CA. 1-3% 1-3mm sulphide filled fractures. 56.5-57.5 Missing ground core.
LEK-19-01	58.90	59.40	ARSENO VN	Massive Sulphide Arsenopyrite Vein- Steel grey metallic massive Arsenopyrite vein. Arsenopyrite coarse grained up to 1 cm crystal faces, not needle like habit. Tr cpy. Small 1 cm arseno vein crosscutting 10 cm into lower volcanics.
LEK-19-01	59.40	60.00	MVOLC	Mafic Unit - Dark green massive flow, possible intrusion. Sharp upper contact. 1-3% 1-3mm sulphide filled fractures.
LEK-19-01	60.0	87.7	MVOLC	Mafic Volcanic flow breccia - Light green fine grained flows and and flow breccia. Sulphide veins 5-10% at high angle to core axis. Tr cpy. H<7 able to scratch 67.0 sulphide content decrease 1-3% with local development in flow breccia margins.
LEK-19-01	87.70	101.00	MVOLC	Mafic Volcanic Tuff Breccia - Ligh green with distinct anglular fragments up to 10 cm. Rounded clasts suggest bombs, possible agglomerate with tuff breccia. Dark green and light gren clasts/fragments/bombs.

BHID	Depth	MS	Lith	<i>Terraplus KT-5 Magnetic Susceptibility Meter</i>			
LEK-19-01	MS-4	24.20					
LEK-19-01	4.0	0.39	Mvpillow				
LEK-19-01	7.0	0.74	Mvpillow				
LEK-19-01	8.0	0.23	Mvpillow				
LEK-19-01	11.0	0.42	Mvpillow				
LEK-19-01	15.5	0.24	Mvpillow				
LEK-19-01	16.8	0.43	Mvpillow				
LEK-19-01	19.0	0.61	Mvpillow				
LEK-19-01	22.5	0.57	Mvpillow				
LEK-19-01	MS-3	1.15					
LEK-19-01	25.2	0.27	Mvflowbreccia				
LEK-19-01	27.7	0.34	Mvflowbreccia				
LEK-19-01	29.0	0.38	Mvflowbreccia				
LEK-19-01	32.0	0.34	Mvflowbreccia				
LEK-19-01	34.0	0.26	Mvflowbreccia				
LEK-19-01	35.0	0.04	QEPorrph				
LEK-19-01	36.0	0.04	QEPorrph				
LEK-19-01	37.0	0.03	QEPorrph				
LEK-19-01	37.5	0.04	QEPorrph				
LEK-19-01	MS-2	0.09					
LEK-19-01	35.8	0.30	Mvflow				
LEK-19-01	40.0	0.49	Mvflow				
LEK-19-01	43.0	0.14	Mvflow				
LEK-19-01	46.0	0.31	Mvflow				
LEK-19-01	47.5	0.56	Mvflow				
LEK-19-01	48.2	0.37	Mvflow				
LEK-19-01	49.0	0.42	Mvflow				
LEK-19-01	50.5	0.75	Mvflow				
LEK-19-01	50.7	2.76	Mvflow				
LEK-19-01	53.0	0.51	Mvflow				
LEK-19-01	MS-1	74.80					
LEK-19-01	54.0	0.43	Mvflow				
LEK-19-01	56.0	0.58	MV				
LEK-19-01	58.0	0.45	MV				
LEK-19-01	58.5	0.27	ARSENO				
LEK-19-01	59.1	0.13	ARSENO				
LEK-19-01	59.2	0.09	ARSENO				
LEK-19-01	60.0	0.18	Mvflow Sulph				
LEK-19-01	62.5	0.47	Mvflow Sulph				
LEK-19-01	64.5	0.53	Mvflow Sulph				
LEK-19-01	66.0	0.60	Mvflow Sulph				
LEK-19-01	MS-1	74.20					
LEK-19-01	69.4	0.45	Mvflow Sulph				
LEK-19-01	73.5	0.42	Mvflow Sulph				
LEK-19-01	79.0	0.50	Mvflow Sulph				
LEK-19-01	82.0	0.64	Mvflow Sulph				
LEK-19-01	86.0	0.26	Mvflow Sulph				
LEK-19-01	92.0	0.70	Mvtuff brecc				
LEK-19-01	93.0	0.23	Mvtuff brecc				
LEK-19-01	97.0	0.42	Mvtuff brecc				
LEK-19-01	100.0	0.50	Mvtuff brecc				

BHID	Sample	From	To	Width	Stand/blank	ME-GRA22	ME-GRA22
						Au	Ag
						ppm	ppm
LEK-19-01	X921201	3.00	4.00	1.00		-0.05	-5
LEK-19-01	X921202	4.00	5.00	1.00		-0.05	-5
LEK-19-01	X921203	5.00	6.00	1.00		-0.05	-5
LEK-19-01	X921204	6.00	7.00	1.00		-0.05	-5
LEK-19-01	X921205	7.00	8.00	1.00		-0.05	-5
LEK-19-01	X921206	8.00	9.00	1.00		-0.05	-5
LEK-19-01	X921207	9.00	10.00	1.00		-0.05	-5
LEK-19-01	X921208	10.00	11.00	1.00		0.08	-5
LEK-19-01	X921209	11.00	12.00	1.00		-0.05	-5
LEK-19-01	X921210	12.00	13.00	1.00		-0.05	-5
LEK-19-01	X921211	13.00	14.00	1.00		-0.05	-5
LEK-19-01	X921212	14.00	15.00	1.00		-0.05	-5
LEK-19-01	X921213	15.00	16.00	1.00		-0.05	-5
LEK-19-01	X921214	16.00	17.00	1.00		-0.05	-5
LEK-19-01	X921215	17.00	18.00	1.00		-0.05	-5
LEK-19-01	X921216	18.00	19.00	1.00		-0.05	-5
LEK-19-01	X921217	19.00	20.00	1.00		-0.05	-5
LEK-19-01	X921218				CDN-GS-1V	1.03	66
LEK-19-01	X921219	20.00	21.00	1.00		-0.05	-5
LEK-19-01	X921220	21.00	22.00	1.00		-0.05	-5
LEK-19-01	X921221	22.00	23.00	1.00		-0.05	-5
LEK-19-01	X921222	23.00	24.00	1.00		-0.05	-5
LEK-19-01	X921223	24.00	25.00	1.00		-0.05	-5
LEK-19-01	X921224	25.00	26.00	1.00		-0.05	-5
LEK-19-01	X921225	26.00	27.00	1.00		-0.05	-5
LEK-19-01	X921226	27.00	28.00	1.00		-0.05	-5
LEK-19-01	X921227	28.00	29.00	1.00		-0.05	-5
LEK-19-01	X921228	29.00	30.00	1.00		-0.05	-5
LEK-19-01	X921229	30.00	31.00	1.00		-0.05	-5
LEK-19-01	X921230	31.00	32.00	1.00		-0.05	-5
LEK-19-01	X921231	32.00	33.00	1.00		-0.05	-5
LEK-19-01	X921232	33.00	34.00	1.00		-0.05	-5
LEK-19-01	X921233	34.00	34.80	0.80		-0.05	-5
LEK-19-01	X921234	34.80	36.00	1.20		-0.05	-5
LEK-19-01	X921235	36.00	37.00	1.00		-0.05	-5
LEK-19-01	X921236	37.00	37.85	0.85		-0.05	-5
LEK-19-01	X921237	37.85	39.00	1.15		-0.05	-5
LEK-19-01	X921238	39.00	40.00	1.00		-0.05	-5
LEK-19-01	X921239				Blank	-0.05	-5
LEK-19-01	X921240	40.00	41.00	1.00		-0.05	-5
LEK-19-01	X921241	41.00	42.00	1.00		-0.05	-5
LEK-19-01	X921242	42.00	43.00	1.00		-0.05	-5
LEK-19-01	X921243	43.00	44.00	1.00		-0.05	-5
LEK-19-01	X921244	44.00	45.00	1.00		-0.05	-5

LEK-19-01	X921245	45.00	46.00	1.00		-0.05	-5
LEK-19-01	X921246	46.00	47.00	1.00		-0.05	-5
LEK-19-01	X921247	47.00	48.00	1.00		-0.05	-5
LEK-19-01	X921248	48.00	49.00	1.00		-0.05	-5
LEK-19-01	X921249	49.00	50.00	1.00		-0.05	-5
LEK-19-01	X921250	50.00	51.00	1.00		0.15	-5
LEK-19-01	X921251	51.00	52.00	1.00		-0.05	-5
LEK-19-01	X921252	52.00	53.00	1.00		-0.05	-5
LEK-19-01	X921253	53.00	54.20	1.20		0.27	-5
LEK-19-01	X921254	54.20	55.00	0.80		-0.05	-5
LEK-19-01	X921255	55.00	56.00	1.00		-0.05	-5
LEK-19-01	X921256	56.00	58.00	2.00	1 m missing cor	0.08	-5
LEK-19-01	X921257	58.00	58.90	0.90		0.08	-5
LEK-19-01	X921258			NSS	Oreas 16S	NSS	NSS
LEK-19-01	X921259	58.90	59.40	0.50		8.51	17
LEK-19-01	X921260	59.40	60.00	0.60		-0.05	-5
LEK-19-01	X921261	60.00	61.00	1.00		0.32	-5
LEK-19-01	X921262				Blank	-0.05	-5
LEK-19-01	X921263	61.00	62.00	1.00		6.2	11
LEK-19-01	X921264	62.00	63.00	1.00		0.28	7
LEK-19-01	X921265	63.00	64.00	1.00		-0.05	-5
LEK-19-01	X921266	64.00	65.00	1.00		-0.05	-5
LEK-19-01	X921267	65.00	66.00	1.00		-0.05	-5
LEK-19-01	X921268	66.00	67.00	1.00		-0.05	-5
LEK-19-01	X921269	67.00	68.00	1.00		-0.05	-5
LEK-19-01	X921270	68.00	69.00	1.00		-0.05	-5
LEK-19-01	X921271	69.00	70.00	1.00		0.63	-5
LEK-19-01	X921272	70.00	71.00	1.00		-0.05	-5
LEK-19-01	X921273	71.00	72.00	1.00		-0.05	-5
LEK-19-01	X921274	72.00	73.00	1.00		-0.05	-5
LEK-19-01	X921275	73.00	74.00	1.00		-0.05	-5
LEK-19-01	X921276	74.00	75.00	1.00		-0.05	-5
LEK-19-01	X921277	75.00	76.00	1.00		-0.05	-5
LEK-19-01	X921278	76.00	77.00	1.00		-0.05	-5
LEK-19-01	X921279	77.00	78.00	1.00		-0.05	-5
LEK-19-01	X921280	78.00	79.00	1.00		-0.05	-5
LEK-19-01	X921281	79.00	80.00	1.00		-0.05	-5
LEK-19-01	X921282	80.00	81.00	1.00		0.12	-5
LEK-19-01	X921283	81.00	82.00	1.00		-0.05	-5
LEK-19-01	X921284	82.00	83.00	1.00		-0.05	-5
LEK-19-01	X921285	83.00	84.00	1.00		-0.05	-5
LEK-19-01	X921286				W163	4.37	99
LEK-19-01	X921287	84.00	85.00	1.00		-0.05	-5
LEK-19-01	X921288	85.00	86.00	1.00		-0.05	-5
LEK-19-01	X921289	86.00	87.00	1.00		-0.05	-5
LEK-19-01	X921290	87.00	87.70	0.70		-0.05	-5

LEK-19-01	X921291				blank	-0.05	-5
LEK-19-01	X921292	87.70	89.00	1.30		-0.05	-5
LEK-19-01	X921293	89.00	90.00	1.00		-0.05	-5
LEK-19-01	X921294	90.00	91.00	1.00		-0.05	-5
LEK-19-01	X921295	91.00	92.00	1.00		-0.05	-5
LEK-19-01	X921296	92.00	93.00	1.00		-0.05	-5
LEK-19-01	X921297	93.00	94.00	1.00		-0.05	-5
LEK-19-01	X921298	94.00	95.00	1.00		-0.05	-5
LEK-19-01	X921299	95.00	96.00	1.00		-0.05	-5
LEK-19-01	X921300	96.00	97.00	1.00		-0.05	-5
LEK-19-01	X921301	97.00	98.00	1.00		-0.05	-5
LEK-19-01	X921302	98.00	99.00	1.00		-0.05	-5
LEK-19-01	X921303	99.00	100.00	1.00		-0.05	-5
LEK-19-01	X921304	100.00	101.00	1.00		-0.05	-5

LEK

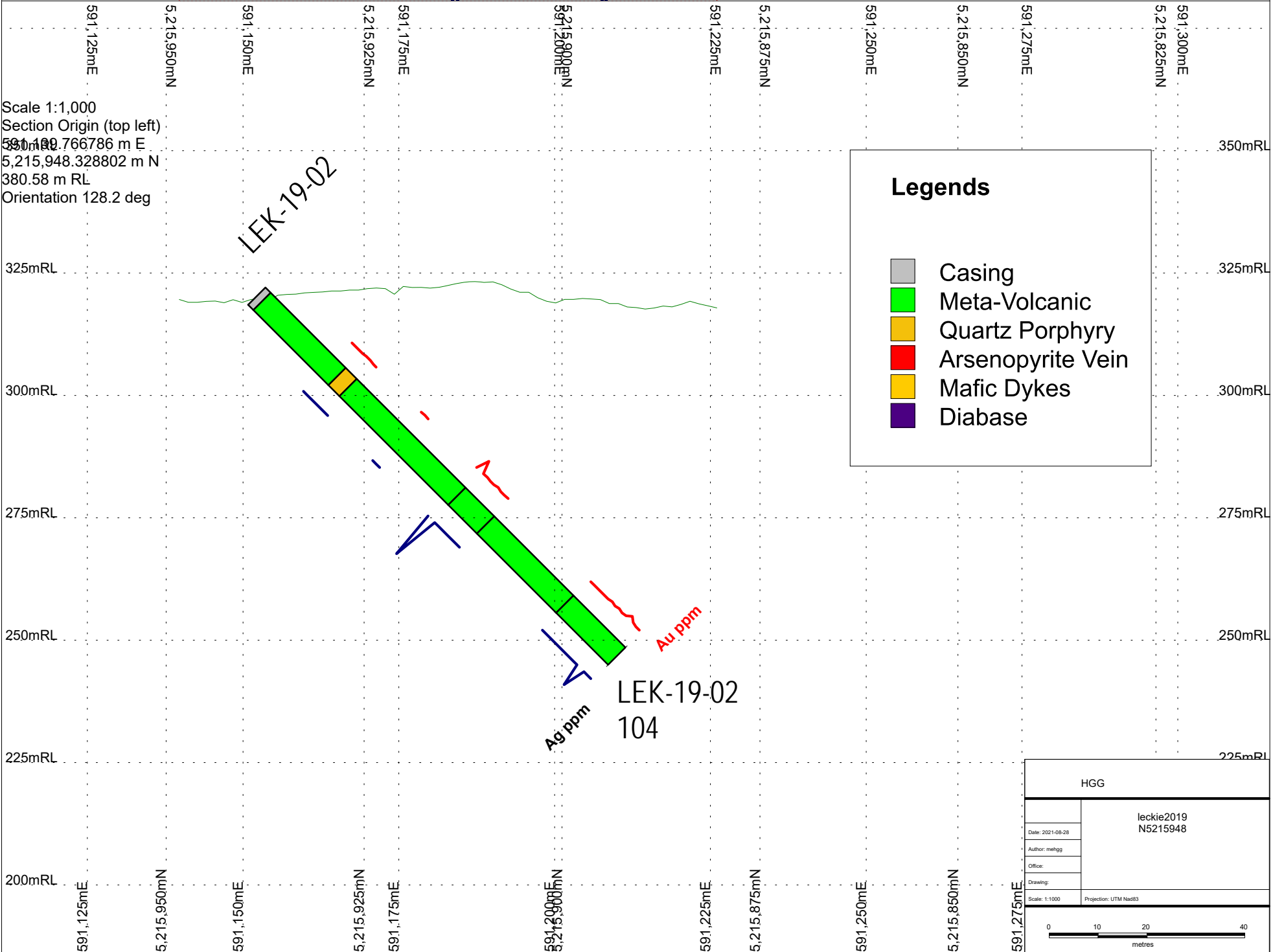
LEK-19-03

104

Scale 1:1,000
 Section Origin (top left)
 591,100.766786 m E
 5,215,948.328802 m N
 380.58 m RL
 Orientation 128.2 deg

Legends

- Casing
- Meta-Volcanic
- Quartz Porphyry
- Arsenopyrite Vein
- Mafic Dykes
- Diabase



LEK-19-02

LEK-19-02

104

Ag ppm

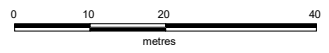
Au ppm

HGG

leckie2019
N5215948

Date: 2021-08-28
 Author: melhgg
 Office:
 Drawing:

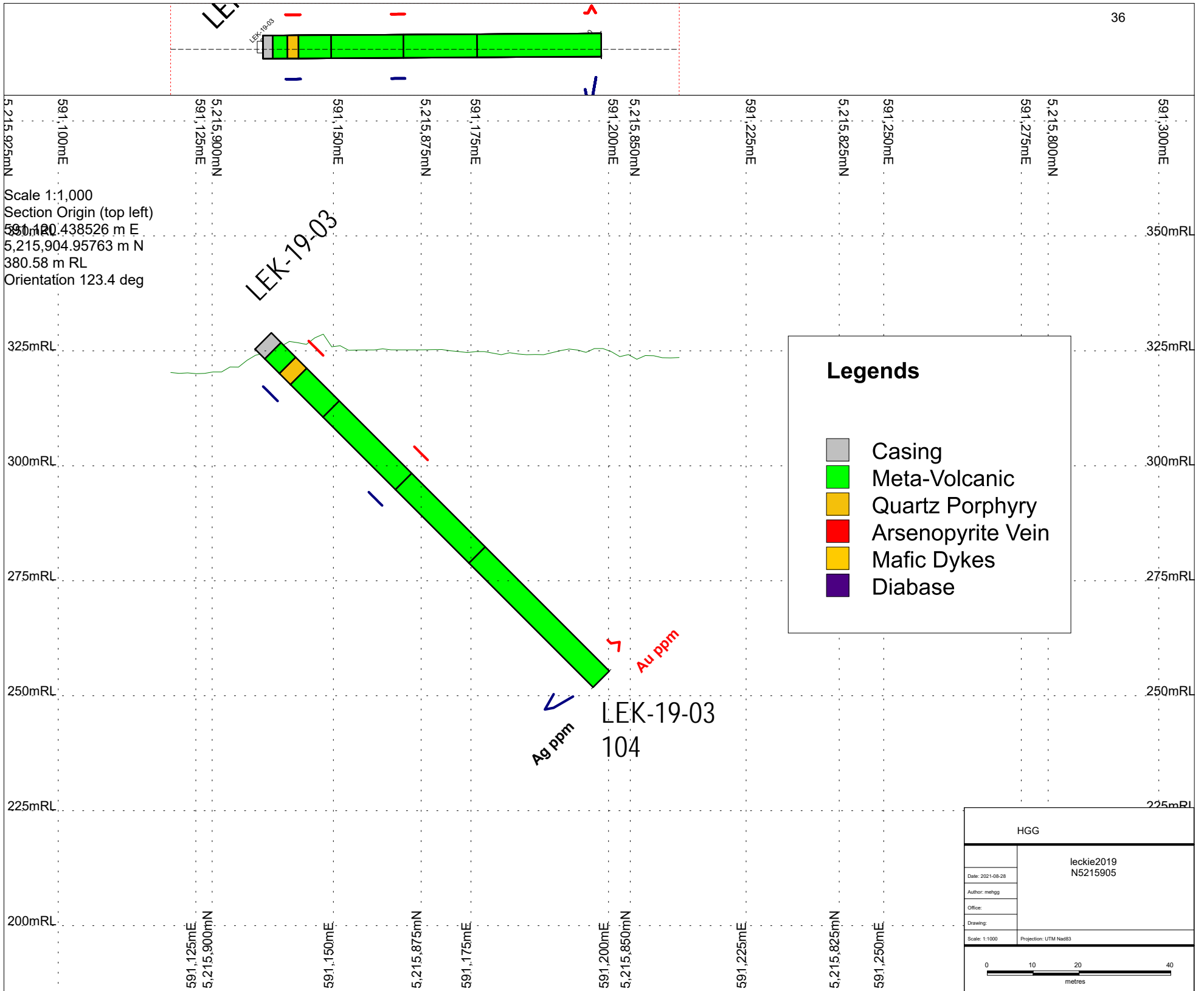
Scale: 1:1000 Projection: UTM Nad83



BHID	From	To	Litho	Comment
LEK-19-02	0	1.50	CAS	CASING- Overburden
LEK-19-02	1.50	23.20	MVOLC	Mafic Volcanic massive flow - Light green fine grained massive with local narrow intervals with 3mm amygdules. No pillow selvages or breccia intervals. H < 7 just able to scratch. 1-3% x-cutting carb veins up to 1 cm wide.
LEK-19-02	23.20	26.40	QTZPOR	Quartz Porphyry - Distinct yellow color, sericitic in composition, not foliated. Distinct 1-2mm grey quartz phenocrysts, not strained. Sharp upper contact tr fine py disseminated, locally 3-5% py. 1-3% qtz veins .5-1cm irregular. H>7 cannot scratch
LEK-19-02	26.40	57.80	MVOLC	Mafic Volcanic flow breccia - Light green with distinct narrow chilled flow breccia material. 1-3% qtz carb fractures cross cutting flow breccia fabric. Rare fine py. 57.75 10cm shear at 65deg to CA.
LEK-19-02	57.80	66.10	MVOLC	Mafic Flow brecciated - lght green fine grained mafic volcnic 10-15% py in stringers and patches and stringers.
LEK-19-02	66.10	89.00	MVOLC	Mafic Volcani massive flow - Green massive unit, abrupt upper contact. Rare flow features and scattered amygdules. H<7 tr-1% qtz carb in narrow cm fractures.
LEK-19-02	89.00	104.00	MVOLC	Mafic Volcanic flow Breccia - Distinct flow breccia with 10-15% py in breccia matrix. 89.8-90.1 broken blocky core. scattered anglular fragments, light in color.

BHID	Depth	MS	Lith	<i>Terraplus KT-5 Magnetic Susceptibility Meter</i>			
LEK-19-02	MS-2	0.03					
LEK-19-02	2.0	0.17	Mvflow				
LEK-19-02	6.0	0.30	Mvflow				
LEK-19-02	11.5	0.24	Mvflow				
LEK-19-02	13.5	0.13	Mvflow				
LEK-19-02	17.0	0.16	Mvflow				
LEK-19-02	20.0	0.37	Mvflow				
LEK-19-02	22.8	0.35	Mvflow				
LEK-19-02	MS-3	1.18					
LEK-19-02	23.5	0.02	QEPorph				
LEK-19-02	24.5	0.01	QEPorph				
LEK-19-02	26.0	0.08	QEPorph				
LEK-19-02	27.0	0.36	Mvflow				
LEK-19-02	30.0	0.53	Mvflow				
LEK-19-02	34.5	0.55	Mvflow				
LEK-19-02	38.0	0.79	Mvflow				
LEK-19-02	MS-4	24.20					
LEK-19-02	42.5	0.28	Mvflow				
LEK-19-02	45.5	0.27	Mvflow				
LEK-19-02	48.0	0.34	Mvflow				
LEK-19-02	51.3	0.46	Mvflow				
LEK-19-02	52.5	0.47	Mvflow				
LEK-19-02	54.0	0.47	Mvflow				
LEK-19-02	55.0	0.36	Mvflow				
LEK-19-02	56.0	0.34	Mvflow				
LEK-19-02	58.0	0.47	Mvflow sulph				
LEK-19-02	59.5	0.52	Mvflow sulph				
LEK-19-02	61.0	0.34	Mvflow sulph				
LEK-19-02	MS-1	75.10					
LEK-19-02	64.0	0.65	Mvflow sulph				
LEK-19-02	65.0	0.58	Mvflow sulph				
LEK-19-02	68.0	0.34	Mvflow				
LEK-19-02	71.0	0.1	Mvflow				
LEK-19-02	74.0	0.20	Mvflow				
LEK-19-02	77.0	0.36	Mvflow				
LEK-19-02	81.0	0.66	Mvflow				
LEK-19-02	83.0	0.32	Mvflow				
LEK-19-02	MS-4	24.20					
LEK-19-02	87.0	0.52	Mvflow				
LEK-19-02	89.5	0.31	Mvflow breccia				
LEK-19-02	91.0	0.28	Mvflow breccia				
LEK-19-02	94.0	0.37	Mvflow breccia				
LEK-19-02	98.0	0.58	Mvflow breccia				
LEK-19-02	103.5	0.29	Mvflow breccia				

BHID	Sample	From	To	Width	Stand/blank	ME-GRA	ME-GRA22
						Au ppm	Ag ppm
LEK-19-02	X921305	20.00	21.00	1.00		-0.05	-5
LEK-19-02	X921306	21.00	22.00	1.00		-0.05	-5
LEK-19-02	X921307	22.00	23.20	1.20		-0.05	-5
LEK-19-02	X921308	23.20	24.00	0.80		-0.05	-5
LEK-19-02	X921309	24.00	25.00	1.00		0.13	-5
LEK-19-02	X921310	25.00	26.40	1.40		0.14	-5
LEK-19-02	X921311	26.40	27.00	0.60		-0.05	-5
LEK-19-02	X921312	27.00	28.00	1.00		-0.05	-5
LEK-19-02	X921313	40.00	41.00	1.00		-0.05	-5
LEK-19-02	X921314	41.00	42.00	1.00		0.1	-5
LEK-19-02	X921315	42.00	43.00	1.00		-0.05	-5
LEK-19-02	X921316	56.00	57.00	1.00		-0.05	-5
LEK-19-02	X921317	57.00	57.80	0.80		2.67	19
LEK-19-02	X921318	57.80	59.00	1.20		0.08	-5
LEK-19-02	X921319	59.00	60.00	1.00		0.15	-5
LEK-19-02	X921320	60.00	61.00	1.00		-0.05	-5
LEK-19-02	X921321	61.00	62.00	1.00		-0.05	-5
LEK-19-02	X921322	62.00	63.00	1.00		0.24	-5
LEK-19-02	X921323				CDN 65 IV	1.04	68
LEK-19-02	X921324	63.00	64.00	1.00		-0.05	-5
LEK-19-02	X921325	64.00	65.00	1.00		-0.05	-5
LEK-19-02	X921326	65.00	66.10	1.10		0.08	-5
LEK-19-02	X921327	89.00	90.00	1.00		-0.05	-5
LEK-19-02	X921328	90.00	91.00	1.00		-0.05	-5
LEK-19-02	X921329	91.00	92.00	1.00		-0.05	-5
LEK-19-02	X921330				Blank	-0.05	-5
LEK-19-02	X921331	92.00	93.00	1.00		-0.05	-5
LEK-19-02	X921332	93.00	94.00	1.00		-0.05	-5
LEK-19-02	X921333	94.00	95.00	1.00		-0.05	-5
LEK-19-02	X921334	95.00	96.00	1.00		0.2	-5
LEK-19-02	X921335				CV 163	4.59	100
LEK-19-02	X921336	96.00	97.00	1.00		-0.05	-5
LEK-19-02	X921337	97.00	98.00	1.00		0.23	-5
LEK-19-02	X921338	98.00	99.00	1.00		-0.05	-5
LEK-19-02	X921339	99.00	100.00	1.00		0.17	-5
LEK-19-02	X921340	100.00	101.00	1.00		0.98	9
LEK-19-02	X921341	101.00	102.00	1.00		0.23	-5
LEK-19-02	X921342	102.00	103.00	1.00		-0.05	-5
LEK-19-02	X921343	103.00	104.00	1.00		-0.05	-5



Scale 1:1,000
 Section Origin (top left)
 591,100.438526 m E
 5,215,904.95763 m N
 380.58 m RL
 Orientation 123.4 deg

Legends

- Casing
- Meta-Volcanic
- Quartz Porphyry
- Arsenopyrite Vein
- Mafic Dykes
- Diabase

HGG	
<small>Date:</small> 2021-08-28	leckie2019 N5215905
<small>Author:</small> mehgg	
<small>Office:</small>	
<small>Drawing:</small>	
<small>Scale:</small> 1:1000	<small>Projection:</small> UTM Nad83

BHID	From	To	Litho	Comment
LEK-19-03	0	3.00	CAS	CASING- Overburden
LEK-19-03	3.00	7.50	MVOLC	Mafic Volcanic massive Flow - Green fine grained, massive, non foliated. Homogenous unit possible fine grained intrusion however similar composition to the flows. H < 7 just able to scratch.
LEK-19-03	7.50	10.90	QTZPOR	Quartz Porphyry - Light yellow/buff distinct sericitic color. Qtz phenocrysts rounded 1-4mm not ovoid, no strain. Sharp upper and lower contacts. Qtz carb filled fractures cross cutting. 1-3% fine diss py. Rare scattered feldspar phenocrysts, rare. H>7
LEK-19-03	10.90	20.90	MVOLC	Mafic Volcanic massive flow - Green fine grained, massive, non foliated. Homogenous unit possible fine grained intrusion however similar composition to the flows. H < 7 just able to scratch. tr fine py.
LEK-19-03	20.90	43.20	MVOLC	Mafic Volcanic flow breccia - Lighter green color, fine grained. 1 mm hairline fractures throughout . Rounded and angular flow breccia features, scattered narrow intervals with amygdules. H 5 readily scratched. 24.1 distinct interflow contact. downunit distinct black ameboid amygdules or hyaloclastite fragments. Narrow rare scattered py stringers in flow breccia matrix <1 cm wide, 42.0-43.2 Weakly foliated section with 10-15% py.
LEK-19-03	43.20	65.80	MVOLC	Mafic Volcanic massive flow - Green fine grained, massive, non foliated. H < 7 just able to scratch. tr fine py. 48.5-50.5 local interval with 1-3mm rounded amygdules. 58.0-60.5 Interval with distinct flow breccia material
LEK-19-03	65.80	104.00	MVOLC	Mafic Volcanic flow breccia- Light green fine grained with sections of flow breccia and ammygdules. distinct green ameboid shapes hyaloclastite? Up to 1 cm. 3-5% locally in the flow breccia matrix. H 5-6 Down unit distinct pillow selvages preserved. 99.5-101.7 Local section with 10-15% py in flow breccia matrix. 101.0-101.7 narrow sulphide section with distinct whiter colored metallic mineral with typical, py, possible Arsenopyrite.

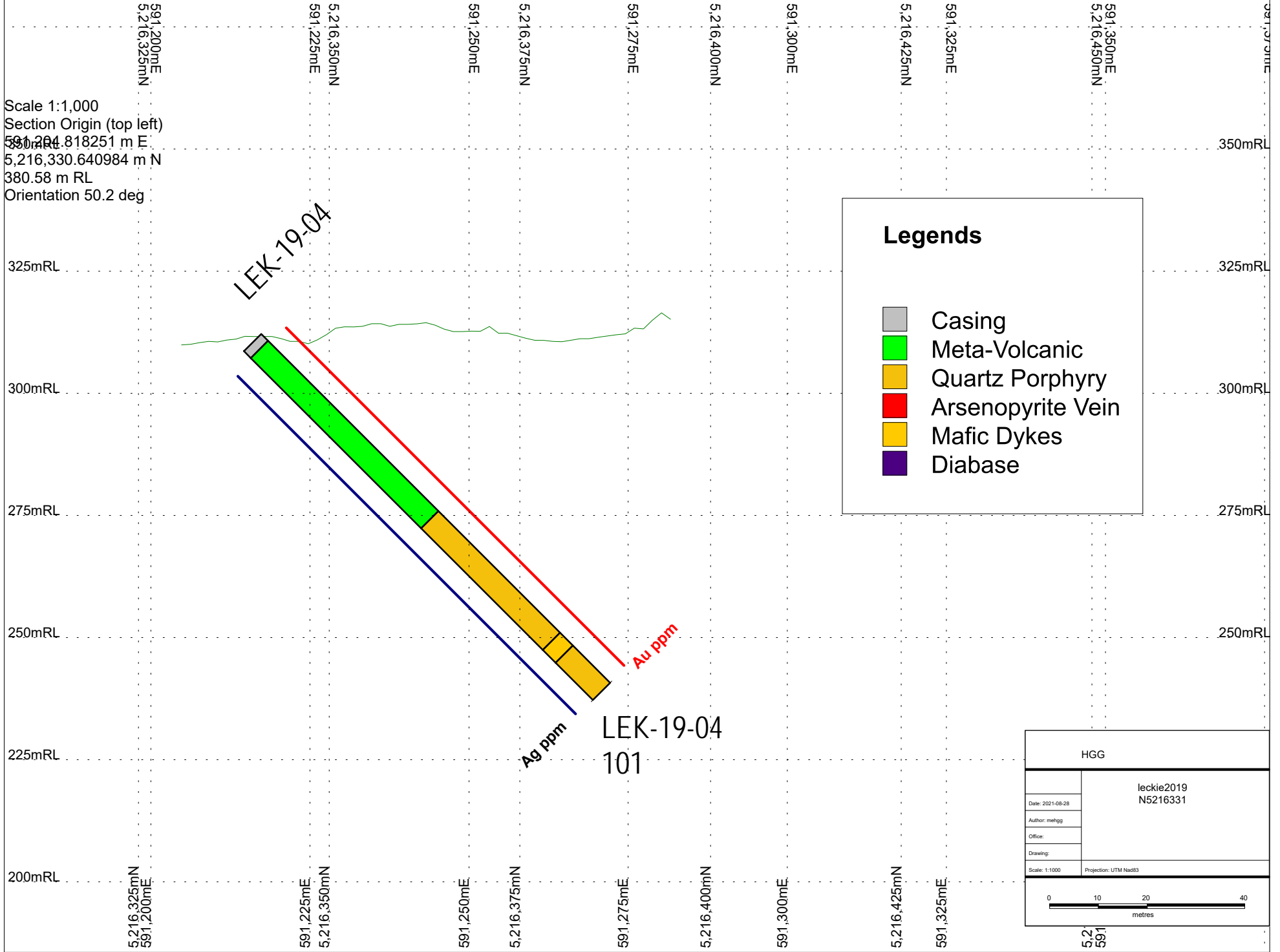
BHID	Depth	MS	Lith	<i>Terraplus KT-5 Magnetic Susceptibility Meter</i>			
LEK-19-03	MS-4	23.90					
LEK-19-03	4.5	0.19					
LEK-19-03	7.2	0.29					
LEK-19-03	8.5	0.04	QPORPH				
LEK-19-03	9.5	0.01					
LEK-19-03	10.5	0.01					
LEK-19-03	11.0	0.30					
LEK-19-03	14.5	0.31					
LEK-19-03	16.0	0.34					
LEK-19-03	MS-3	1.17					
LEK-19-03	19.0	0.39					
LEK-19-03	20.5	0.34					
LEK-19-03	23.5	0.22					
LEK-19-03	27.5	0.29					
LEK-19-03	32.0	0.20					
LEK-19-03	36.0	0.31					
LEK-19-03	40.5	0.27					
LEK-19-03	42.0	0.41					
LEK-19-03	45.0	0.45					
LEK-19-03	MS-3	1.18					
LEK-19-03	49.0	0.38					
LEK-19-03	53.0	0.35					
LEK-19-03	57.5	0.35					
LEK-19-03	62.0	0.31					
LEK-19-03	66.0	0.34					
LEK-19-03	69.0	0.12					
LEK-19-03	72.0	0.21					
LEK-19-03	76.0	0.40					
LEK-19-03	79.0	0.39					
LEK-19-03	83.0	0.29					
LEK-19-03	89.0	0.29					
LEK-19-03	MS-2	0.10					
LEK-19-03	97.0	0.41					
LEK-19-03	102.0	0.53					

						ME-GRA22	ME-GRA22
						Au	Ag
BHID	Sample	From	To	Width	Stand/blank	ppm	ppm
LEK-19-03	X921344	6.50	7.50	1.00		-0.05	-5
LEK-19-03	X921345	7.50	8.50	1.00		-0.05	-5
LEK-19-03	X921346	8.50	9.50	1.00		-0.05	-5
LEK-19-03	X921347				GS1-V	1.19	67
LEK-19-03	X921348	9.50	10.90	1.40		-0.05	-5
LEK-19-03	X921349				Blank	-0.05	-5
LEK-19-03	X921350	10.90	12.00	1.10		-0.05	-5
LEK-19-03	X921351	39.00	40.00	1.00		-0.05	-5
LEK-19-03	X921352	40.00	41.00	1.00		-0.05	-5
LEK-19-03	X921353	41.00	42.00	1.00		-0.05	-5
LEK-19-03	X921354	42.00	43.20	1.20		-0.05	-5
LEK-19-03	X921355	43.20	44.00	0.80		-0.05	-5
LEK-19-03	X921356	98.50	99.50	1.00		-0.05	5
LEK-19-03	X921357				Blank	-0.05	-5
LEK-19-03	X921358	99.50	100.50	1.00		-0.05	12
LEK-19-03	X921359	100.50	101.70	1.20		1.53	9
LEK-19-03	X921360	101.70	103.00	1.30		-0.05	-5

Scale 1:1,000
 Section Origin (top left)
 5,216,304.818251 m E
 5,216,330.640984 m N
 380.58 m RL
 Orientation 50.2 deg

Legends

- Casing
- Meta-Volcanic
- Quartz Porphyry
- Arsenopyrite Vein
- Mafic Dykes
- Diabase



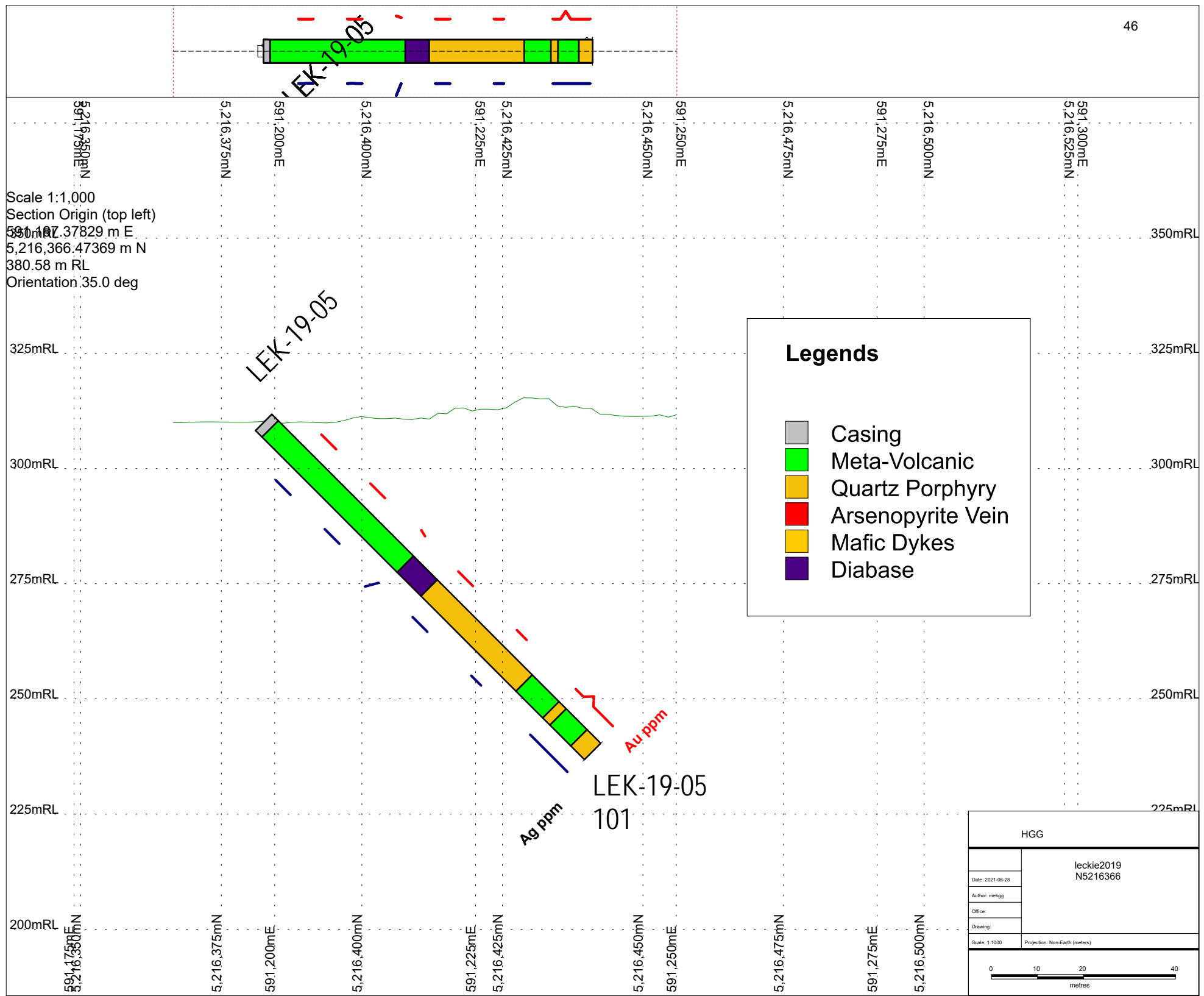
HGG	
Date: 2021-08-28	leckie2019 N5216331
Author: mehgg	
Office:	
Drawing:	
Scale: 1:1000	Projection: UTM Nad83

BHID	From	To	Litho	Comment
LEK-19-04	0	2.00	CAS	CASING- Overburden
LEK-19-04	2.00	51.30	MVOLC	Mafic Volcanic flow breccia - Lighter green color, fine grained. 1 mm hairline fractures throughout . Rounded and angular flow breccia features, scattered narrow intervals with amygdules. Fine disseminated py throughout. 1-3% quartz carb filled fractures throughout, <1cm wide. 13.5-24.0 local increase 7-10% quartz carb veins, generally 65-75 deg to CA. 25.2-26.0 Broken blocky core 39.5-39.8 Mafic Dike, dark black fine grained sharp upper and lower contacts. 46.4 slight increase in strain in rocks. 47.9-48.4 Mafic Dike, dark black broken blocky core.
LEK-19-04	51.30	86.50	QTZPOR	Quartz Porphyry - Light yellow/buff distinct sericitic color. Quartz phenocrysts rounded 1-4mm not ovoid, no strain. 15-12% quartz phenocrysts, grey in color. 1-2% fine disseminated py. 1-2% carb filled fractures <1cm wide. H>7 60.4-60.7 - Mafic Dike 72.1-74.0 - Mafic Dike
LEK-19-04	86.50	90.20	MDIKE	Mafic Dike - Dark green. Fine grained massive with a diorite composition. Sharp upper and lower contacts. H-7
LEK-19-04	90.20	101.00	QTZPOR	Quartz Porphyry - Light yellow/buff distinct sericitic color. Quartz phenocrysts rounded 1-4mm not ovoid, no strain. 15-12% quartz phenocrysts, grey in color. 1-2% fine disseminated py. 1-2% carb filled fractures <1cm wide. H>7

BHID	Depth	MS	Lith	<i>Terraplus KT-5 Magnetic Susceptibility Meter</i>			
LEK-19-04	MS-2	0.08					
LEK-19-04	5.0	0.89	Mvpill				
LEK-19-04	9.0	0.30	Mvpill				
LEK-19-04	16.0	0.36	Mvpill				
LEK-19-04	22.0	0.36	Mvpill				
LEK-19-04	27.0	0.39	Mvpill				
LEK-19-04	32.0	0.32	Mvpill				
LEK-19-04	38.0	0.45	Mvpill				
LEK-19-04	39.7	18.20	Mdike				
LEK-19-04	40.0	0.70	Mvpill				
LEK-19-04	MS-3	1.91					
LEK-19-04	44.0	0.34	Mvpill				
LEK-19-04	46.0	0.58	Mvpill				
LEK-19-04	48.2	0.45	Mvpill				
LEK-19-04	50.0	0.41	Mvpill				
LEK-19-04	52.0	0.06	QPORPH				
LEK-19-04	53.5	0.06	QPORPH				
LEK-19-04	55.5	0.05	QPORPH				
LEK-19-04	58.0	0.06	QPORPH				
LEK-19-04	61.5	0.05	QPORPH				
LEK-19-04	67.0	0.08	QPORPH				
LEK-19-04	70.0	0.24	QPORPH				
LEK-19-04	72.0	0.03	MDIKE				
LEK-19-04	MS-4	24.20					
LEK-19-04	73.0	0.40	MDIKE				
LEK-19-04	73.8	0.49	MDIKE				
LEK-19-04	75.0	0.05	QPORPH				
LEK-19-04	80.0	0.02	QPORPH				
LEK-19-04	83.0	0.04	QPORPH				
LEK-19-04	85.0	0.23	QPORPH				
LEK-19-04	87.0	0.26	Mafic Dike				
LEK-19-04	88.5	0.27	Mafic Dike				
LEK-19-04	89.5	0.18	Mafic Dike				
LEK-19-04	91.5	0.09	QPORPH				
LEK-19-04	93.0	0.06	QPORPH				
LEK-19-04	98.0	0.14	QPORPH				
LEK-19-04	MS-1	76.00					
LEK-19-04	101.0	0.07	QPORPH				

						ME-GRA22	ME-GRA22
						Au	Ag
BHID	Sample	From	To	Width	Stand/blank	ppm	ppm
LEK-19-04	X921361	2.00	3.50	1.50		-0.05	-5
LEK-19-04	X921362	3.50	5.00	1.50		-0.05	-5
LEK-19-04	X921363	5.00	6.50	1.50		-0.05	-5
LEK-19-04	X921364	6.50	8.00	1.50		-0.05	-5
LEK-19-04	X921365	8.00	9.50	1.50		-0.05	-5
LEK-19-04	X921366	9.50	11.00	1.50		-0.05	-5
LEK-19-04	X921367				CDN GS-1V	1.1	71
LEK-19-04	X921368	11.00	12.50	1.50		-0.05	-5
LEK-19-04	X921369	12.50	14.00	1.50		-0.05	-5
LEK-19-04	X921370				blank	-0.05	-5
LEK-19-04	X921371	14.00	15.50	1.50		-0.05	-5
LEK-19-04	X921372	15.50	17.00	1.50		-0.05	-5
LEK-19-04	X921373	17.00	18.50	1.50		-0.05	-5
LEK-19-04	X921374	18.50	20.00	1.50		-0.05	-5
LEK-19-04	X921375	20.00	21.50	1.50		-0.05	-5
LEK-19-04	X921376	21.50	23.00	1.50		-0.05	-5
LEK-19-04	X921377	23.00	24.50	1.50		-0.05	-5
LEK-19-04	X921378	24.50	26.00	1.50		-0.05	-5
LEK-19-04	X921379	26.00	27.50	1.50		-0.05	-5
LEK-19-04	X921380	27.50	29.00	1.50		-0.05	-5
LEK-19-04	X921381	29.00	30.50	1.50		-0.05	-5
LEK-19-04	X921382				CDN GS-1V	0.92	67
LEK-19-04	X921383	30.50	32.00	1.50		-0.05	-5
LEK-19-04	X921384	32.00	33.50	1.50		-0.05	-5
LEK-19-04	X921385	33.50	35.00	1.50		-0.05	-5
LEK-19-04	X921386	35.00	36.50	1.50		-0.05	-5
LEK-19-04	X921387	36.50	38.00	1.50		-0.05	-5
LEK-19-04	X921388	38.00	39.50	1.50		-0.05	-5
LEK-19-04	X921389	39.50	41.00	1.50		-0.05	-5
LEK-19-04	X921390	41.00	42.50	1.50		-0.05	-5
LEK-19-04	X921391	42.50	44.00	1.50		-0.05	-5
LEK-19-04	X921392	44.00	45.50	1.50		-0.05	-5
LEK-19-04	X921393	45.50	47.00	1.50		-0.05	-5
LEK-19-04	X921394				blank	-0.05	-5
LEK-19-04	X921395	47.00	48.50	1.50		-0.05	-5
LEK-19-04	X921396	48.50	50.00	1.50		-0.05	-5
LEK-19-04	X921397	50.00	51.30	1.30		-0.05	-5
LEK-19-04	X921398	51.30	52.50	1.20		-0.05	-5
LEK-19-04	X921399	52.50	54.00	1.50		-0.05	-5
LEK-19-04	X921400	54.00	55.50	1.50		-0.05	-5
LEK-19-04	X921401	55.50	57.00	1.50		-0.05	-5
LEK-19-04	X921402				CDN GS-1V	1.34	357
LEK-19-04	X921403	57.00	58.50	1.50		-0.05	-5
LEK-19-04	X921404	58.50	60.00	1.50		-0.05	-5
LEK-19-04	X921405	60.00	61.50	1.50		-0.05	-5
LEK-19-04	X921406	61.50	63.00	1.50		-0.05	-5
LEK-19-04	X921407	63.00	64.50	1.50		-0.05	-5
LEK-19-04	X921408	64.50	66.00	1.50		-0.05	-5
LEK-19-04	X921409	66.00	67.50	1.50		-0.05	-5
LEK-19-04	X921410	67.50	69.00	1.50		-0.05	-5
LEK-19-04	X921411				blank	-0.05	-5
LEK-19-04	X921412	69.00	70.50	1.50		-0.05	-5
LEK-19-04	X921413	70.50	72.00	1.50		-0.05	-5
LEK-19-04	X921414	72.00	73.50	1.50		-0.05	-5
LEK-19-04	X921415	73.50	75.00	1.50		-0.05	-5
LEK-19-04	X921416	75.00	76.50	1.50		-0.05	-5
LEK-19-04	X921417	76.50	78.00	1.50		-0.05	-5
LEK-19-04	X921418	78.00	79.50	1.50		-0.05	-5
LEK-19-04	X921419				CDN GS-1V	1.11	64
LEK-19-04	X921420	79.50	81.00	1.50		-0.05	-5
LEK-19-04	X921421	81.00	82.50	1.50		-0.05	-5
LEK-19-04	X921422	82.50	84.00	1.50		-0.05	-5
LEK-19-04	X921423	84.00	85.50	1.50		-0.05	-5
LEK-19-04	X921424	85.50	86.50	1.00		-0.05	-5
LEK-19-04	X921425	86.50	88.00	1.50		-0.05	-5
LEK-19-04	X921426	88.00	89.50	1.50		-0.05	-5
LEK-19-04	X921427	89.50	90.20	0.70		-0.05	-5
LEK-19-04	X921428	90.20	91.50	1.30		-0.05	-5
LEK-19-04	X921429				blank	-0.05	-5
LEK-19-04	X921430	91.50	93.00	1.50		-0.05	-5
LEK-19-04	X921431	93.00	94.50	1.50		-0.05	-5
LEK-19-04	X921432	94.50	96.00	1.50		-0.05	-5
LEK-19-04	X921433	96.00	97.50	1.50		-0.05	-5
LEK-19-04	X921434	97.50	99.00	1.50		-0.05	-5
LEK-19-04	X921435	99.00	100.00	1.00		-0.05	-5
LEK-19-04	X921436	100.00	101.00	1.00		-0.05	-5

Scale 1:1,000
 Section Origin (top left)
 5,216,366.47369 m E
 5,216,366.47369 m N
 380.58 m RL
 Orientation 35.0 deg



Legends

- Casing
- Meta-Volcanic
- Quartz Porphyry
- Arsenopyrite Vein
- Mafic Dykes
- Diabase

HGG	
<small>Date:</small> 2021-08-28	leckie2019 N5216366
<small>Author:</small> mehgg	
<small>Office:</small>	
<small>Drawing:</small>	
<small>Scale:</small> 1:1000	<small>Projection:</small> Non-Earth (metres)

BHID	From	To	Litho	Comment
LEK-19-05	0	2.00	CAS	CASING- Overburden
LEK-19-05	2.00	43.50	MVOLC	Mafic Volcanic flow breccia - Lighter green color, fine grained. 1 mm hairline fractures throughout . Rounded and angular flow breccia features, scattered narrow intervals with amygdules. Fine disseminated py 1-3% throughout. 1-3% quartz carb filled fractures throughout, <1cm wide. 10.3-12.0 Broken blocky core, no foliation in chips 16.0-17.0 Broken blocky core, no foliation in chips 28.0-34.0 Interval of massive flow, no distinct contacts. H>7 downhole 39.5-43.5 Broken blocky core, soft fault gouge clay and small chips and ground rock. Qtz vein chip material
LEK-19-05	43.50	50.80	DIAB	Diabase Dike - Dark black fine grained crystalline texture. Distinct chicken track texture of the plagioclase laths Massive sharp upper and lower contacts
LEK-19-05	50.80	80.00	QTZPOR	Quartz Porphyry - Light yellow/buff distinct sericitic color. Qtz phenocrysts rounded 1-4mm not ovoid, no strain. 15-12% quartz phenocrysts, grey in color. 1-2% fine disseminated py. 3-5% carb filled fractures <1cm wide. H>7 64.0-70.0 local section with white feldspar phenocrysts up to 4mm in size.
LEK-19-05	80.00	88.20	MVOLC	Mafic Volcanic flow breccia-scattered brecciated intervals and possible pillow selvages. 10% white carb filled fractures, tr py.
LEK-19-05	88.20	90.40	QTZPOR	Quartz Porphyry - Light yellow/buff distinct sericitic color. Qtz phenocrysts rounded 1-4mm not ovoid, no strain. 15-12% quartz phenocrysts, grey in color. 1-2% fine disseminated py. 3-5% carb filled fractures <1cm wide. H>7
LEK-19-05	90.40	96.80	MVOLC	Mafic Volcanic flow breccia -Scattered brecciated intervals and possible pillow selvages. 10% white carb filled fractures, tr py. 10-15% py in flow breccia matrix
LEK-19-05	96.80	101.00	QTZPOR	Quartz Porphyry - Light yellow/buff distinct sericitic color. Qtz phenocrysts rounded 1-4mm not ovoid, no strain. 15-12% quartz phenocrysts, grey in color. 1-2% fine disseminated py. 1-3% carb filled fractures <1cm wide. H>7

BHID	Depth	MS	Lith	<i>Terraplus KT-5 Magnetic Susceptibility Meter</i>			
LEK-19-05	5.0	0.47	MV				
LEK-19-05	12.5	0.51	MV				
LEK-19-05	17.2	0.61	MV				
LEK-19-05	22.0	0.28	MV				
LEK-19-05	28.0	0.49	MV				
LEK-19-05	34.0	0.21	MV				
LEK-19-05	38.0	0.32	MV				
LEK-19-05	MS-2	0.13					
LEK-19-05	39.0	0.37	MV				
LEK-19-05	44.5	13.20	DIAB				
LEK-19-05	46.5	33.30	DIAB				
LEK-19-05	49.0	36.00	DIAB				
LEK-19-05	50.3	38.10	DIAB				
LEK-19-05	52.0	0.05	Qporph				
LEK-19-05	54.2	0.01	Qporph				
LEK-19-05	57.5	0.06	Qporph				
LEK-19-05	61.0	0.09	Qporph				
LEK-19-05	MS-4	29.00					
LEK-19-05	66.0	0.08	Qporph				
LEK-19-05	73.0	0.12	Qporph				
LEK-19-05	77.0	0.04	Qporph				
LEK-19-05	79.0	0.07	Qporph				
LEK-19-05	82.0	0.16	MV				
LEK-19-05	84.5	0.28	MV				
LEK-19-05	86.0	0.35	MV				
LEK-19-05	89.0	0.06	Qporph				
LEK-19-05	93.0	0.32	MV				
LEK-19-05	95.0	0.19	MV				
LEK-19-05	MS-1	73.00					
LEK-19-05	97.0	0.14	Qporph				
LEK-19-05	98.5	0.08	Qporph				
LEK-19-05	100.0	0.12	Qporph				

						ME-GRA	ME-GRA22
						Au	Ag
BHID	Sample	From	To	Width	Stand/blank	ppm	ppm
LEK-19-05	X921437	10.00	11.50	1.50		-0.05	-5
LEK-19-05	X921438	11.50	13.00	1.50		-0.05	-5
LEK-19-05	X921439	13.00	14.50	1.50		-0.05	-5
LEK-19-05	X921440	14.50	16.00	1.50		-0.05	-5
LEK-19-05	X921441	25.00	26.50	1.50		-0.05	-5
LEK-19-05	X921442	26.50	28.00	1.50		-0.05	-5
LEK-19-05	X921443				CDN GS-IV	1.09	64
LEK-19-05	X921444	28.00	29.50	1.50		-0.05	-5
LEK-19-05	X921445	29.50	31.00	1.50		-0.05	-5
LEK-19-05	X921446				blank	-0.05	-5
LEK-19-05	X921447	40.00	41.50	1.50		0.66	5
LEK-19-05	X921448	41.50	43.00	1.50		0.31	-5
LEK-19-05	X921449	52.00	53.50	1.50		-0.05	-5
LEK-19-05	X921450	53.50	55.00	1.50		-0.05	-5
LEK-19-05	X921451	55.00	56.50	1.50		-0.05	-5
LEK-19-05	X921452	56.50	58.00	1.50		-0.05	-5
LEK-19-05	X921453	70.00	71.50	1.50		-0.05	-5
LEK-19-05	X921454	71.50	73.00	1.50		-0.05	-5
LEK-19-05	X921455	73.00	74.50	1.50		-0.05	-5
LEK-19-05	X921456	88.20	89.50	1.30		-0.05	-5
LEK-19-05	X921457	89.50	90.40	0.90		-0.05	-5
LEK-19-05	X921458				CDN GS-IV	2.14	362
LEK-19-05	X921459	90.40	92.00	1.60		-0.05	-5
LEK-19-05	X921460	92.00	93.50	1.50		1.66	-5
LEK-19-05	X921461	93.50	95.00	1.50		-0.05	-5
LEK-19-05	X921462				blank	-0.05	-5
LEK-19-05	X921463	95.00	96.80	1.80		-0.05	-5
LEK-19-05	X921464	96.80	98.00	1.20		-0.05	-5
LEK-19-05	X921465	98.00	99.50	1.50		-0.05	-5
LEK-19-05	X921466	99.50	101.00	1.50		-0.05	-5



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

To: **PROGENITOR METALS CORP.**
1100-595 HOWE ST
VANCOUVER BC V6Z 0C2

Page: 1
Total # Pages: 4 (A - C)
Plus Appendix Pages
Finalized Date: 3-SEP-2019
This copy reported on 4-SEP-2019
Account: PMMYLLQY

CERTIFICATE SD19190329

This report is for 104 Drill Core samples submitted to our lab in Sudbury, ON, Canada on 2-AUG-2019.
 The following have access to data associated with this certificate:

MICHAEL COLLINS CHRIS TAYLOR	MARTIN ETHIER	TODD KEAST
---------------------------------	---------------	------------

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um
LOG-23	Pulp Login - Rcvd with Barcode

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES
Cu-OG46	Ore Grade Cu - Aqua Regia	
ME-GRA22	Au Ag 50g FA-GRAV finish	WST-SIM
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

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

***** See Appendix Page for comments regarding this certificate *****

Signature: 
 Colin Ramshaw, Vancouver Laboratory Manager



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

To: PROGENITOR METALS CORP.
 1100-595 HOWE ST
 VANCOUVER BC V6Z 0C2

Page: 2 - A
 Total # Pages: 4 (A - C)
 Plus Appendix Pages
 Finalized Date: 3-SEP-2019
 Account: PMMYLLQY

CERTIFICATE OF ANALYSIS SD19190329

Sample Description	Method Analyte Units LOD	WEI-21	ME-GRA22	ME-GRA22	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	
		Recvd Wt. kg	Au ppm	Ag ppm	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
		0.02	0.05	5	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1
X921201		1.86	<0.05	<5												
X921202		1.86	<0.05	<5												
X921203		2.07	<0.05	<5												
X921204		2.23	<0.05	<5												
X921205		2.40	<0.05	<5												
X921206		2.33	<0.05	<5												
X921207		2.46	<0.05	<5												
X921208		2.14	0.08	<5												
X921209		2.21	<0.05	<5												
X921210		2.34	<0.05	<5												
X921211		2.02	<0.05	<5												
X921212		2.36	<0.05	<5												
X921213		2.33	<0.05	<5												
X921214		2.55	<0.05	<5												
X921215		2.38	<0.05	<5												
X921216		2.41	<0.05	<5												
X921217		2.41	<0.05	<5												
X921218		0.10	1.03	66												
X921219		2.42	<0.05	<5												
X921220		2.33	<0.05	<5												
X921221		2.39	<0.05	<5												
X921222		2.30	<0.05	<5												
X921223		2.46	<0.05	<5												
X921224		2.25	<0.05	<5												
X921225		2.26	<0.05	<5												
X921226		2.12	<0.05	<5												
X921227		2.31	<0.05	<5												
X921228		2.42	<0.05	<5												
X921229		2.15	<0.05	<5												
X921230		2.23	<0.05	<5												
X921231		2.31	<0.05	<5												
X921232		2.21	<0.05	<5												
X921233		1.89	<0.05	<5												
X921234		2.93	<0.05	<5												
X921235		1.84	<0.05	<5												
X921236		1.80	<0.05	<5												
X921237		2.58	<0.05	<5												
X921238		2.62	<0.05	<5												
X921239		0.34	<0.05	<5												
X921240		2.06	<0.05	<5												



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

To: PROGENITOR METALS CORP.
 1100-595 HOWE ST
 VANCOUVER BC V6Z 0C2

Page: 2 - B
 Total # Pages: 4 (A - C)
 Plus Appendix Pages
 Finalized Date: 3-SEP-2019
 Account: PMMYLLQY

CERTIFICATE OF ANALYSIS SD19190329

Sample Description	Method Analyte Units LOD	ME-ICP41 Fe %	ME-ICP41 Ga ppm	ME-ICP41 Hg ppm	ME-ICP41 K %	ME-ICP41 La ppm	ME-ICP41 Mg %	ME-ICP41 Mn ppm	ME-ICP41 Mo ppm	ME-ICP41 Na %	ME-ICP41 Ni ppm	ME-ICP41 P ppm	ME-ICP41 Pb ppm	ME-ICP41 S %	ME-ICP41 Sb ppm	ME-ICP41 Sc ppm
X921201		0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
X921202																
X921203																
X921204																
X921205																
X921206																
X921207																
X921208																
X921209																
X921210																
X921211																
X921212																
X921213																
X921214																
X921215																
X921216																
X921217																
X921218																
X921219																
X921220																
X921221																
X921222																
X921223																
X921224																
X921225																
X921226																
X921227																
X921228																
X921229																
X921230																
X921231																
X921232																
X921233																
X921234																
X921235																
X921236																
X921237																
X921238																
X921239																
X921240																

***** See Appendix Page for comments regarding this certificate *****



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

To: PROGENITOR METALS CORP.
 1100-595 HOWE ST
 VANCOUVER BC V6Z 0C2

Page: 2 - C
 Total # Pages: 4 (A - C)
 Plus Appendix Pages
 Finalized Date: 3-SEP-2019
 Account: PMMYLLQY

CERTIFICATE OF ANALYSIS SD19190329

Sample Description	Method Analyte Units LOD	ME-ICP41 Sr ppm	ME-ICP41 Th ppm	ME-ICP41 Ti %	ME-ICP41 Tl ppm	ME-ICP41 U ppm	ME-ICP41 V ppm	ME-ICP41 W ppm	ME-ICP41 Zn ppm	Cu-OG46 Cu %	CRU-QC Pass2mm %	PUL-QC Pass75um %
X921201		1	20	0.01	10	10	1	10	2	0.001	0.01	0.01
X921202											83.0	97.3
X921203												93.4
X921204												
X921205												
X921206												
X921207												
X921208												
X921209												
X921210												
X921211												
X921212												
X921213												
X921214												
X921215												
X921216												
X921217												
X921218												
X921219												
X921220												
X921221											71.6	
X921222												
X921223												
X921224												
X921225												
X921226												
X921227												
X921228												
X921229												
X921230												
X921231												
X921232												
X921233												
X921234												
X921235												
X921236												
X921237												
X921238												
X921239											75.4	95.2
X921240												88.8

***** See Appendix Page for comments regarding this certificate *****



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

To: PROGENITOR METALS CORP.
 1100-595 HOWE ST
 VANCOUVER BC V6Z 0C2

Page: 3 - A
 Total # Pages: 4 (A - C)
 Plus Appendix Pages
 Finalized Date: 3-SEP-2019
 Account: PMMYLLQY

CERTIFICATE OF ANALYSIS SD19190329

Sample Description	Method Analyte Units LOD	WEI-21	ME-GRA22	ME-GRA22	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	
		Recvd Wt. kg	Au ppm	Ag ppm	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
		0.02	0.05	5	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1
X921241		2.31	<0.05	<5												
X921242		2.18	<0.05	<5												
X921243		2.14	<0.05	<5												
X921244		2.31	<0.05	<5												
X921245		2.41	<0.05	<5												
X921246		2.20	<0.05	<5												
X921247		2.56	<0.05	<5												
X921248		2.33	<0.05	<5												
X921249		2.18	<0.05	<5												
X921250		2.57	0.15	<5												
X921251		2.03	<0.05	<5												
X921252		2.54	<0.05	<5												
X921253		3.32	0.27	<5												
X921254		1.79	<0.05	<5												
X921255		2.47	<0.05	<5	0.5	5.00	41	<10	20	<0.5	6	0.31	<0.5	18	67	115
X921256		2.76	0.08	<5	0.8	5.19	1165	<10	20	<0.5	9	0.30	<0.5	22	96	138
X921257		2.01	0.08	<5	0.9	3.97	7280	<10	20	<0.5	14	0.27	<0.5	26	53	409
X921258		<0.02	NSS	NSS	3.0	1.06	3440	<10	<10	<0.5	51	0.06	<0.5	2410	47	>10000
X921259		1.89	8.51	17	22.1	0.41	>10000	<10	10	<0.5	114	0.03	<0.5	188	5	961
X921260		1.49	<0.05	<5	1.0	2.64	5360	<10	20	<0.5	8	0.26	<0.5	22	41	419
X921261		1.99	0.32	<5	1.5	5.60	462	<10	10	<0.5	11	0.45	<0.5	8	36	689
X921262		0.32	<0.05	<5												
X921263		2.37	6.20	11												
X921264		2.64	0.28	7												
X921265		2.45	<0.05	<5												
X921266		2.44	<0.05	<5												
X921267		2.48	<0.05	<5												
X921268		2.87	<0.05	<5												
X921269		2.19	<0.05	<5												
X921270		2.43	<0.05	<5												
X921271		2.54	0.63	<5												
X921272		1.98	<0.05	<5												
X921273		2.49	<0.05	<5												
X921274		2.49	<0.05	<5												
X921275		2.40	<0.05	<5												
X921276		2.51	<0.05	<5												
X921277		2.54	<0.05	<5												
X921278		2.57	<0.05	<5												
X921279		2.38	<0.05	<5												
X921280		2.57	<0.05	<5												



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

To: PROGENITOR METALS CORP.
 1100-595 HOWE ST
 VANCOUVER BC V6Z 0C2

Page: 3 - B
 Total # Pages: 4 (A - C)
 Plus Appendix Pages
 Finalized Date: 3-SEP-2019
 Account: PMMYLLQY

CERTIFICATE OF ANALYSIS SD19190329

	Method Analyte Units LOD	ME-ICP41 Fe %	ME-ICP41 Ga ppm	ME-ICP41 Hg ppm	ME-ICP41 K %	ME-ICP41 La ppm	ME-ICP41 Mg %	ME-ICP41 Mn ppm	ME-ICP41 Mo ppm	ME-ICP41 Na %	ME-ICP41 Ni ppm	ME-ICP41 P ppm	ME-ICP41 Pb ppm	ME-ICP41 S %	ME-ICP41 Sb ppm	ME-ICP41 Sc ppm
Sample Description		0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
X921241 X921242 X921243 X921244 X921245																
X921246 X921247 X921248 X921249 X921250																
X921251 X921252 X921253 X921254 X921255		12.90	10	<1	0.12	10	1.96	1105	1	0.01	51	1360	9	1.92	<2	6
X921256 X921257 X921258 X921259 X921260		14.05 12.30 8.69 27.5 7.63	10 10 <10 <10 10	<1 <1 <1 <1 <1	0.10 0.13 0.03 0.06 0.15	10 10 10 <10 10	2.04 1.55 1.70 0.14 1.00	1110 845 75 66 556	2 1 10 2 1	0.01 0.01 0.01 0.01 0.01	59 55 111 18 36	1360 1220 180 140 1150	8 4 418 70 2	2.64 3.75 8.98 >10.0 2.20	<2 <2 18 84 3	7 5 1 1 3
X921261 X921262 X921263 X921264 X921265		15.60	20	<1	0.08	10	2.22	1180	4	0.01	46	2100	8	3.42	<2	11
X921266 X921267 X921268 X921269 X921270																
X921271 X921272 X921273 X921274 X921275																
X921276 X921277 X921278 X921279 X921280																



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

To: PROGENITOR METALS CORP.
 1100-595 HOWE ST
 VANCOUVER BC V6Z 0C2

Page: 3 - C
 Total # Pages: 4 (A - C)
 Plus Appendix Pages
 Finalized Date: 3-SEP-2019
 Account: PMMYLLQY

CERTIFICATE OF ANALYSIS SD19190329

Sample Description	Method Analyte Units LOD	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	Cu-OG46	CRU-QC	PUL-QC
		Sr ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm	Cu %	Pass2mm %	Pass75um %
		1	20	0.01	10	10	1	10	2	0.001	0.01	0.01
X921241 X921242 X921243 X921244 X921245												
X921246 X921247 X921248 X921249 X921250												
X921251 X921252 X921253 X921254 X921255		5	<20	0.01	<10	<10	76	<10	242			
X921256 X921257 X921258 X921259 X921260		6	<20	0.01	<10	<10	84	<10	230			
		6	<20	0.01	<10	<10	58	<10	182			
		2	<20	<0.01	10	<10	6	<10	34	3.09		
		2	<20	<0.01	<10	<10	9	<10	24			
		5	<20	0.01	<10	<10	38	<10	120			
X921261 X921262 X921263 X921264 X921265		8	<20	0.01	<10	<10	130	<10	264			
X921266 X921267 X921268 X921269 X921270												
X921271 X921272 X921273 X921274 X921275												
X921276 X921277 X921278 X921279 X921280											77.1	89.2 94.5

***** See Appendix Page for comments regarding this certificate *****



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

To: PROGENITOR METALS CORP.
 1100-595 HOWE ST
 VANCOUVER BC V6Z 0C2

Page: 4 - A
 Total # Pages: 4 (A - C)
 Plus Appendix Pages
 Finalized Date: 3-SEP-2019
 Account: PMMYLLQY

CERTIFICATE OF ANALYSIS SD19190329

Sample Description	Method Analyte Units LOD	WEI-21	ME-GRA22	ME-GRA22	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	
		Recvd Wt. kg	Au ppm	Ag ppm	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm
		0.02	0.05	5	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1
X921281		2.38	<0.05	<5												
X921282		2.60	0.12	<5												
X921283		2.39	<0.05	<5												
X921284		2.40	<0.05	<5												
X921285		2.39	<0.05	<5												
X921286		0.05	4.37	99												
X921287		2.44	<0.05	<5												
X921288		2.41	<0.05	<5												
X921289		2.36	<0.05	<5												
X921290		1.69	<0.05	<5												
X921291		0.33	<0.05	<5												
X921292		2.94	<0.05	<5												
X921293		2.49	<0.05	<5												
X921294		2.48	<0.05	<5												
X921295		2.33	<0.05	<5												
X921296		2.53	<0.05	<5												
X921297		2.32	<0.05	<5												
X921298		2.46	<0.05	<5												
X921299		2.31	<0.05	<5												
X921300		2.14	<0.05	<5												
X921301		2.42	<0.05	<5												
X921302		2.36	<0.05	<5												
X921303		2.45	<0.05	<5												
X921304		2.14	<0.05	<5												

***** See Appendix Page for comments regarding this certificate *****



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

To: PROGENITOR METALS CORP.
 1100-595 HOWE ST
 VANCOUVER BC V6Z 0C2

Page: 4 - B
 Total # Pages: 4 (A - C)
 Plus Appendix Pages
 Finalized Date: 3-SEP-2019
 Account: PMMYLLQY

CERTIFICATE OF ANALYSIS SD19190329

		ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41		
Sample Description	Method Analyte Units LOD	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	
		0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	
X921281 X921282 X921283 X921284 X921285																	
X921286 X921287 X921288 X921289 X921290																	
X921291 X921292 X921293 X921294 X921295																	
X921296 X921297 X921298 X921299 X921300																	
X921301 X921302 X921303 X921304																	

***** See Appendix Page for comments regarding this certificate *****



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

To: PROGENITOR METALS CORP.
 1100-595 HOWE ST
 VANCOUVER BC V6Z 0C2

Page: 4 - C
 Total # Pages: 4 (A - C)
 Plus Appendix Pages
 Finalized Date: 3-SEP-2019
 Account: PMMYLLQY

CERTIFICATE OF ANALYSIS SD19190329

Sample Description	Method Analyte Units LOD	ME-ICP41 Sr ppm	ME-ICP41 Th ppm	ME-ICP41 Ti %	ME-ICP41 Tl ppm	ME-ICP41 U ppm	ME-ICP41 V ppm	ME-ICP41 W ppm	ME-ICP41 Zn ppm	Cu-OG46 Cu %	CRU-QC Pass2mm %	PUL-QC Pass75um %
X921281 X921282 X921283 X921284 X921285		1	20	0.01	10	10	1	10	2	0.001	0.01	0.01
X921286 X921287 X921288 X921289 X921290												
X921291 X921292 X921293 X921294 X921295												
X921296 X921297 X921298 X921299 X921300											75.0	
X921301 X921302 X921303 X921304												

***** See Appendix Page for comments regarding this certificate *****



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

To: **PROGENITOR METALS CORP.**
1100-595 HOWE ST
VANCOUVER BC V6Z 0C2

Page: 1
Total # Pages: 2 (A)
Plus Appendix Pages
Finalized Date: 3-SEP-2019
This copy reported on 4-SEP-2019
Account: PMMYLLQY

CERTIFICATE SD19190331

This report is for 39 Drill Core samples submitted to our lab in Sudbury, ON, Canada on 2-AUG-2019.
 The following have access to data associated with this certificate:

MICHAEL COLLINS CHRIS TAYLOR	MARTIN ETHIER	TODD KEAST
---------------------------------	---------------	------------

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
PUL-QC	Pulverizing QC Test
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um
LOG-23	Pulp Login - Rcvd with Barcode
CRU-QC	Crushing QC Test

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
ME-GRA22	Au Ag 50g FA-GRAV finish	WST-SIM

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

***** See Appendix Page for comments regarding this certificate *****

Signature: 
 Colin Ramshaw, Vancouver Laboratory Manager



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

To: PROGENITOR METALS CORP.
 1100-595 HOWE ST
 VANCOUVER BC V6Z 0C2

Page: 2 - A
 Total # Pages: 2 (A)
 Plus Appendix Pages
 Finalized Date: 3-SEP-2019
 Account: PMMYLLQY

CERTIFICATE OF ANALYSIS SD19190331

Sample Description	Method Analyte Units LOD	WEI-21	ME-GRA22	ME-GRA22	CRU-QC	PUL-QC
		Recvd Wt. kg	Au ppm	Ag ppm	Pass2mm %	Pass75um %
		0.02	0.05	5	0.01	0.01
X921305		2.40	<0.05	<5	80.8	94.3
X921306		2.27	<0.05	<5		92.4
X921307		2.75	<0.05	<5		
X921308		1.44	<0.05	<5		
X921309		2.08	0.13	<5		
X921310		3.18	0.14	<5		
X921311		1.28	<0.05	<5		
X921312		2.24	<0.05	<5		
X921313		2.37	<0.05	<5		
X921314		2.16	0.10	<5		
X921315		2.36	<0.05	<5		
X921316		2.26	<0.05	<5		
X921317		2.37	2.67	19		
X921318		2.24	0.08	<5		
X921319		2.34	0.15	<5		
X921320		2.43	<0.05	<5		
X921321		2.23	<0.05	<5		
X921322		2.68	0.24	<5		
X921323		0.09	1.04	68		
X921324		2.53	<0.05	<5		88.7
X921325		2.34	<0.05	<5		96.1
X921326		3.00	0.08	<5		
X921327		2.37	<0.05	<5		
X921328		1.84	<0.05	<5		
X921329		2.31	<0.05	<5		
X921330		0.39	<0.05	<5		
X921331		2.31	<0.05	<5	83.0	
X921332		1.97	<0.05	<5		
X921333		2.44	<0.05	<5		
X921334		2.14	0.20	<5		
X921335		0.04	4.59	100		
X921336		1.92	<0.05	<5		
X921337		2.03	0.23	<5		
X921338		2.66	<0.05	<5		
X921339		2.11	0.17	<5		
X921340		2.50	0.98	9		
X921341		2.47	0.23	<5	73.5	
X921342		2.23	<0.05	<5		
X921343		2.15	<0.05	<5		



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

To: **PROGENITOR METALS CORP.**
1100-595 HOWE ST
VANCOUVER BC V6Z 0C2

Page: **Appendix 1**
Total # Appendix Pages: **1**
Finalized Date: **3-SEP-2019**
Account: **PMMYLLQY**

CERTIFICATE OF ANALYSIS SD19190331

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Applies to Method:	Processed at ALS Sudbury located at 1351-B Kelly Lake Road, Unit #1, Sudbury, ON, Canada.		
	CRU-31	CRU-QC	LOG-22
	PUL-31	PUL-QC	SPL-21
			LOG-23
			WEI-21
Applies to Method:	Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.		
	ME-GRA22		



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

To: **PROGENITOR METALS CORP.**
1100-595 HOWE ST
VANCOUVER BC V6Z 0C2

Page: 1
Total # Pages: 2 (A - C)
Plus Appendix Pages
Finalized Date: 2-SEP-2019
This copy reported on 4-SEP-2019
Account: PMMYLLQY

CERTIFICATE SD19190339

This report is for 17 Drill Core samples submitted to our lab in Sudbury, ON, Canada on 2-AUG-2019.
 The following have access to data associated with this certificate:

MICHAEL COLLINS CHRIS TAYLOR	MARTIN ETHIER	TODD KEAST
---------------------------------	---------------	------------

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um
LOG-23	Pulp Login - Rcvd with Barcode

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
ME-GRA22	Au Ag 50g FA-GRAV finish	WST-SIM
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

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

***** See Appendix Page for comments regarding this certificate *****

Signature: 
 Colin Ramshaw, Vancouver Laboratory Manager



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

To: PROGENITOR METALS CORP.
 1100-595 HOWE ST
 VANCOUVER BC V6Z 0C2

Page: 2 - A
 Total # Pages: 2 (A - C)
 Plus Appendix Pages
 Finalized Date: 2-SEP-2019
 Account: PMMYLLQY

CERTIFICATE OF ANALYSIS SD19190339

Sample Description	Method Analyte Units LOD	WEI-21 Recvd Wt. kg	ME-GRA22 Au ppm	ME-GRA22 Ag ppm	ME-ICP41 Ag ppm	ME-ICP41 Al %	ME-ICP41 As ppm	ME-ICP41 B ppm	ME-ICP41 Ba ppm	ME-ICP41 Be ppm	ME-ICP41 Bi ppm	ME-ICP41 Ca %	ME-ICP41 Cd ppm	ME-ICP41 Co ppm	ME-ICP41 Cr ppm	ME-ICP41 Cu ppm
X921344		2.01	<0.05	<5												
X921345		1.95	<0.05	<5												
X921346		2.24	<0.05	<5												
X921347		0.10	1.19	67												
X921348		2.98	<0.05	<5												
X921349		0.54	<0.05	<5												
X921350		0.40	<0.05	<5												
X921351		2.43	<0.05	<5												
X921352		2.20	<0.05	<5												
X921353		2.52	<0.05	<5												
X921354		2.83	<0.05	<5												
X921355		1.99	<0.05	<5												
X921356		2.44	<0.05	5	4.9	4.47	106	<10	20	<0.5	<2	5.42	2.5	36	107	43
X921357		0.65	<0.05	<5	<0.2	0.06	<2	<10	10	<0.5	<2	>25.0	<0.5	<1	2	1
X921358		2.39	<0.05	12	10.2	5.39	114	<10	10	<0.5	10	4.43	2.7	43	112	691
X921359		3.08	1.53	9	8.9	4.11	>10000	<10	10	<0.5	26	2.35	<0.5	192	82	1635
X921360		2.94	<0.05	<5	0.8	4.95	75	<10	10	<0.5	<2	5.42	1.7	39	110	54

***** See Appendix Page for comments regarding this certificate *****



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

To: PROGENITOR METALS CORP.
 1100-595 HOWE ST
 VANCOUVER BC V6Z 0C2

Page: 2 - B
 Total # Pages: 2 (A - C)
 Plus Appendix Pages
 Finalized Date: 2-SEP-2019
 Account: PMMYLLQY

CERTIFICATE OF ANALYSIS SD19190339

Sample Description	Method Analyte Units LOD	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	
		Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm
X921344		0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
X921345																
X921346																
X921347																
X921348																
X921349																
X921350																
X921351																
X921352																
X921353																
X921354																
X921355																
X921356		8.71	10	<1	0.11	10	2.78	2080	1	<0.01	62	620	2	0.28	2	13
X921357		0.17	<10	1	0.01	<10	0.85	151	<1	<0.01	7	70	<2	<0.01	<2	<1
X921358		11.65	20	1	0.06	10	3.21	2020	1	<0.01	75	570	20	1.22	<2	18
X921359		16.65	10	<1	0.03	10	2.14	1390	4	<0.01	83	420	66	8.77	4	16
X921360		10.35	20	1	0.08	10	2.80	2310	1	<0.01	68	630	8	0.24	<2	16



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

To: PROGENITOR METALS CORP.
 1100-595 HOWE ST
 VANCOUVER BC V6Z 0C2

Page: 2 - C
 Total # Pages: 2 (A - C)
 Plus Appendix Pages
 Finalized Date: 2-SEP-2019
 Account: PMMYLLQY

CERTIFICATE OF ANALYSIS SD19190339

Sample Description	Method Analyte Units LOD	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	CRU-QC	PUL-QC
		Sr ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm	Pass2mm %	Pass75um %
		1	20	0.01	10	10	1	10	2	0.01	0.01
X921344										71.2	96.7
X921345											96.0
X921346											
X921347											
X921348											
X921349											
X921350											
X921351											
X921352											
X921353											
X921354											
X921355											
X921356		68	<20	0.01	<10	<10	183	<10	402	72.9	
X921357		83	<20	<0.01	<10	<10	2	<10	4		
X921358		53	<20	0.01	<10	<10	218	<10	418		
X921359		27	<20	0.01	<10	<10	175	<10	288		
X921360		69	<20	0.01	<10	<10	205	<10	378		

***** See Appendix Page for comments regarding this certificate *****



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

To: **PROGENITOR METALS CORP.**
1100-595 HOWE ST
VANCOUVER BC V6Z 0C2

Page: 1
Total # Pages: 3 (A)
Plus Appendix Pages
Finalized Date: 3-SEP-2019
This copy reported on 4-SEP-2019
Account: PMMYLLQY

CERTIFICATE SD19190341

This report is for 76 Drill Core samples submitted to our lab in Sudbury, ON, Canada on 2-AUG-2019.
 The following have access to data associated with this certificate:

MICHAEL COLLINS CHRIS TAYLOR	MARTIN ETHIER	TODD KEAST
---------------------------------	---------------	------------

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
PUL-QC	Pulverizing QC Test
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um
LOG-23	Pulp Login - Rcvd with Barcode
CRU-QC	Crushing QC Test

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
ME-GRA22	Au Ag 50g FA-GRAV finish	WST-SIM

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

***** See Appendix Page for comments regarding this certificate *****

Signature: 
 Colin Ramshaw, Vancouver Laboratory Manager



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

To: PROGENITOR METALS CORP.
 1100-595 HOWE ST
 VANCOUVER BC V6Z 0C2

Page: 2 - A
 Total # Pages: 3 (A)
 Plus Appendix Pages
 Finalized Date: 3-SEP-2019
 Account: PMMYLLQY

CERTIFICATE OF ANALYSIS SD19190341

Sample Description	Method Analyte Units LOD	WEI-21	ME-GRA22	ME-GRA22	CRU-QC	PUL-QC
		Recvd Wt. kg	Au ppm	Ag ppm	Pass2mm %	Pass75um %
		0.02	0.05	5	0.01	0.01
X921361		2.76	<0.05	<5	63.7	94.1
X921362		2.46	<0.05	<5		85.2
X921363		2.83	<0.05	<5		
X921364		3.41	<0.05	<5		
X921365		3.36	<0.05	<5		
X921366		3.51	<0.05	<5		
X921367		0.10	1.10	71		
X921368		3.56	<0.05	<5		
X921369		3.67	<0.05	<5		
X921370		0.69	<0.05	<5		
X921371		3.51	<0.05	<5		
X921372		3.56	<0.05	<5		
X921373		3.55	<0.05	<5		
X921374		3.10	<0.05	<5		
X921375		3.46	<0.05	<5		
X921376		3.43	<0.05	<5		
X921377		3.19	<0.05	<5	81.8	
X921378		2.64	<0.05	<5		
X921379		3.47	<0.05	<5		
X921380		3.43	<0.05	<5		
X921381		3.41	<0.05	<5		
X921382		0.10	0.92	67		
X921383		3.07	<0.05	<5		
X921384		3.42	<0.05	<5		
X921385		3.42	<0.05	<5		
X921386		3.44	<0.05	<5		
X921387		3.32	<0.05	<5		
X921388		3.07	<0.05	<5		
X921389		3.60	<0.05	<5		
X921390		3.32	<0.05	<5		
X921391		3.44	<0.05	<5		
X921392		3.25	<0.05	<5		
X921393		3.15	<0.05	<5		
X921394		0.65	<0.05	<5		
X921395		2.51	<0.05	<5		
X921396		3.47	<0.05	<5		
X921397		2.78	<0.05	<5		
X921398		2.73	<0.05	<5		
X921399		3.17	<0.05	<5		96.5
X921400		3.35	<0.05	<5	78.1	94.2



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

To: PROGENITOR METALS CORP.
 1100-595 HOWE ST
 VANCOUVER BC V6Z 0C2

Page: 3 - A
 Total # Pages: 3 (A)
 Plus Appendix Pages
 Finalized Date: 3-SEP-2019
 Account: PMMYLLQY

CERTIFICATE OF ANALYSIS SD19190341

Sample Description	Method Analyte Units LOD	WEI-21	ME-GRA22	ME-GRA22	CRU-QC	PUL-QC
		Recvd Wt. kg	Au ppm	Ag ppm	Pass2mm %	Pass75um %
		0.02	0.05	5	0.01	0.01
X921401		3.23	<0.05	<5		
X921402		0.06	1.34	357		
X921403		3.37	<0.05	<5		
X921404		3.10	<0.05	<5		
X921405		3.19	<0.05	<5		
X921406		3.19	<0.05	<5		
X921407		3.43	<0.05	<5		
X921408		3.32	<0.05	<5		
X921409		3.46	<0.05	<5		
X921410		3.34	<0.05	<5		
X921411		0.70	<0.05	<5		
X921412		3.63	<0.05	<5		
X921413		2.93	<0.05	<5		
X921414		3.39	<0.05	<5		
X921415		3.56	<0.05	<5		
X921416		3.05	<0.05	<5		
X921417		3.36	<0.05	<5		
X921418		2.81	<0.05	<5		
X921419		0.10	1.11	64		
X921420		3.49	<0.05	<5		
X921421		3.47	<0.05	<5		
X921422		3.21	<0.05	<5		
X921423		3.37	<0.05	<5		
X921424		2.22	<0.05	<5		
X921425		3.76	<0.05	<5		
X921426		3.24	<0.05	<5	82.0	
X921427		1.45	<0.05	<5		
X921428		2.80	<0.05	<5		
X921429		0.65	<0.05	<5		
X921430		3.21	<0.05	<5		
X921431		2.77	<0.05	<5		
X921432		3.81	<0.05	<5		
X921433		3.10	<0.05	<5		
X921434		3.33	<0.05	<5		
X921435		2.07	<0.05	<5		
X921436		2.26	<0.05	<5		



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

To: PROGENITOR METALS CORP.
1100-595 HOWE ST
VANCOUVER BC V6Z 0C2

Page: Appendix 1
Total # Appendix Pages: 1
Finalized Date: 3-SEP-2019
Account: PMMYLLQY

CERTIFICATE OF ANALYSIS SD19190341

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Applies to Method:	Processed at ALS Sudbury located at 1351-B Kelly Lake Road, Unit #1, Sudbury, ON, Canada.		
	CRU-31	CRU-QC	LOG-22
	PUL-31	PUL-QC	SPL-21
			LOG-23
			WEI-21
Applies to Method:	Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.		
	ME-GRA22		



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

To: **PROGENITOR METALS CORP.**
1100-595 HOWE ST
VANCOUVER BC V6Z 0C2

Page: 1
Total # Pages: 2 (A)
Plus Appendix Pages
Finalized Date: 2-SEP-2019
This copy reported on 4-SEP-2019
Account: PMMYLLQY

CERTIFICATE SD19190343

This report is for 30 Drill Core samples submitted to our lab in Sudbury, ON, Canada on 2-AUG-2019.
 The following have access to data associated with this certificate:

MICHAEL COLLINS CHRIS TAYLOR	MARTIN ETHIER	TODD KEAST
---------------------------------	---------------	------------

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-23	Pulp Login - Rcvd with Barcode
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
ME-GRA22	Au Ag 50g FA-GRAV finish	WST-SIM

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

***** See Appendix Page for comments regarding this certificate *****

Signature: 
 Colin Ramshaw, Vancouver Laboratory Manager



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

To: PROGENITOR METALS CORP.
 1100-595 HOWE ST
 VANCOUVER BC V6Z 0C2

Page: 2 - A
 Total # Pages: 2 (A)
 Plus Appendix Pages
 Finalized Date: 2-SEP-2019
 Account: PMMYLLQY

CERTIFICATE OF ANALYSIS SD19190343

Sample Description	Method Analyte Units LOD	WEI-21	ME-GRA22	ME-GRA22	CRU-QC	PUL-QC
		Recvd Wt. kg	Au ppm	Ag ppm	Pass2mm %	Pass75um %
		0.02	0.05	5	0.01	0.01
X921437		2.19	<0.05	<5	80.3	94.3
X921438		3.78	<0.05	<5		90.1
X921439		3.74	<0.05	<5		
X921440		3.05	<0.05	<5		
X921441		3.70	<0.05	<5		
X921442		3.59	<0.05	<5		
X921443		0.10	1.09	64		
X921444		3.78	<0.05	<5		
X921445		3.48	<0.05	<5		
X921446		0.63	<0.05	<5		
X921447		1.43	0.66	5	83.7	
X921448		1.08	0.31	<5		92.8
X921449		3.61	<0.05	<5		93.1
X921450		3.39	<0.05	<5		
X921451		3.03	<0.05	<5		
X921452		3.61	<0.05	<5		
X921453		3.24	<0.05	<5		
X921454		3.41	<0.05	<5		
X921455		3.23	<0.05	<5		
X921456		2.86	<0.05	<5		
X921457		1.72	<0.05	<5		
X921458		0.05	2.14	362		
X921459		2.51	<0.05	<5		
X921460		3.13	1.66	<5		
X921461		3.52	<0.05	<5		
X921462		0.72	<0.05	<5		
X921463		3.66	<0.05	<5		
X921464		2.88	<0.05	<5		
X921465		3.05	<0.05	<5		
X921466		3.20	<0.05	<5		

***** See Appendix Page for comments regarding this certificate *****

