

**NI 43-101 TECHNICAL REPORT
ON THE
TAYLOR BROOK PROJECT,
WESTERN WHITE BAY AREA,
WEST-CENTRAL NEWFOUNDLAND,
NEWFOUNDLAND AND LABRADOR
FOR
CHURCHILL RESOURCES INC.**

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St. John's, NL and Toronto, ON, Canada

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1.0 SUMMARY

This independent technical report on the Taylor Brook Property (“Property”) in the western White Bay area of Newfoundland and Labrador, Canada, was prepared by Dr. Derek Wilton, P.Geo., of Terra Rosetta Inc. (“Terra Rosetta”), St. John’s, NL, and Mr. Jeremy S. Brett, M.Sc., P.Geo., of Toronto, ON, assisted by Mr. Paul Sobie P.Geo., Chief Executive Officer & Director, Churchill Resources Inc. (“Churchill”).

1.1 Property Description and Location

The Taylor Brook Project consists of 705 map staked claims totalling 17,625 hectares (176.25km²) held under nine mineral licences of which seven are held by Churchill, as per Table 1-1 and Figure 1-1. Churchill also includes the two small licenses 026955M and 027616M within their overall Taylor Brook Project as per Table 1-1, having secured option agreements from the owners on August 31st, 2021. License 027048M is owned by Mr. Nathaniel Noel who allowed Churchill to carry out work on his ground as part of the larger Taylor Brook Project.

Table 1-1: Taylor Brook Project Claims

Property Name	License Number	Number of Claims	Number of Hectares	Year of Tenure	Expiry Date	Excess Expenditure
Taylor Brook	027290M	13	325	5	29-Aug-2024	\$1,953,538.27
Taylor Brook	031511M	213	5,325	3	10-Nov-2026	\$178,919.97
Hicks	027616M	4	100	3	30-Jan-2025	\$856,914.81
Russell	026995M	15	375	3	30-Jan-2023	\$78,928.63
TB South	032488M	214	5,350	3	26 May-2026	\$348,710.06
TB South	033255M	13	325	3	14-Aug-2026	\$106,722.21
TB South	033256M	19	475	3	14-Aug-2026	\$102.94
TB South	034257M	13	325	2	13-Apr-2027	\$4,223.35
Cormack	032798M/ 036322M	209	5,225	3	20-Jun-2026	-\$128,771.12
	9	705	17,625			

1.2 Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Property is situated west of the Hampden – Sops Arm Highway (Route 420) near the Upper Humber River and can be accessed by travelling the Taylor Brook Resource Road (Figure 1-1). In addition, a network of secondary woods roads originating from the main resource road allow for easy access to most of the claims as per Figure 1-2. The northeast corner of Licence 027290M lies at UTM coordinates 5 498 500 N, 483 500 E, Zone NAD 21, and the northeast corner of Licence 03151M lies at UTM coordinates of 5,507,500 N; 480,000 E, Zone NAD 21.

Newfoundland has a typical northern Atlantic climate with short summers and long, cold, winters. The average seasonal temperatures for central Newfoundland range from 17°C in summer to -6°C in winter. Mean annual precipitation ranges from 700 to 900 mm per year with the mean annual snowfall between 275 and 325 cm. Environment Canada describes the Deer Lake region as having a [humid continental climate](#) (Köppen: Dfb) with moderately warm summers but somewhat long cold winters.

The Town of Deer Lake is approximately 50 km south-southwest of the project. Aside from a modern regional airport, Deer Lake can provide a full range of exploration services. A power line passes within 10 km of the property. The port of Corner Brook, located 50 km west of Deer Lake, is only 35 km inland from the Gulf of St. Lawrence which is accessible year-round with a few ice breaker services needed during the winter months.

The Taylor Brook area is located in an area of forested highlands with elevations ranging from less than 200 meters to greater than 500 meters above sea level (ASL). The highlands surround moderately flat terrane where the Upper Humber River and other prominent watercourses transect the project area. Vegetation covering the claim group consists of a mixture of coniferous trees with lesser deciduous varieties, and small boggy areas.

1.3 History

Exploration in the Taylor Brook area has been relatively limited, spanning sporadic intervals between discovery of the Layden Showing in 1998 and the latest airborne survey in 2020. Early work on the property included a variety of geophysical surveys (including max-min, magnetometer, VLF-EM, and transient EM), line cutting, geological mapping, trenching, lithogeochemical analyses, and petrographic examinations.

Seventeen diamond drill holes were completed on the property in 2007-2008 with a cumulative length 2626.27 m (1205.47 m in 2007 and 1430.8 m in 2008). The 2007 holes were designed to intersect “metabasite” breccias north of the Layden Showing and ultimately enlarged the known size of the ultramafic unit to 200 x 100 x 50 m. The best assay intercept from the 2007 holes was 0.13% Ni, 0.21% Cu and 0.03% Co over 1 m. Between drill programs, downhole EM (PEM) surveys were conducted in two of the 2007 holes and a strong off-hole conductor was detected at a depth of 140 m and a weak one at 80 m.

The 2008 drilling intersected five distinct zones of sulphide mineralization including massive to semi-massive sulphide intervals. Hole 08TB-09 intersected three massive to semi-massive

sulphide intervals, 0.3 to 0.95 m thick; 08TB-10 intersected four massive to semi-massive sulphide intervals, 0.02 to 0.1 m thick; 08TB-14 intersected two 0.2 m wide massive sulphide intervals; TB08-16 intersected 1 to 5 cm thick massive sulphide zones within a 5.2 m wide interval; and TB08-17 intersected semi-massive sulphide intervals. Significant drill-hole intercepts included: 1.71% Ni, 0.13% Cu and 0.028% Co over 4.15 m; 1.63% Ni, 0.36% Cu and 0.027% Co over 4.25 m; 1.35% Ni, 0.32% Cu and 0.023% Co over 1.35 m. Holes 08TB-09 and -10 intersected “Layden-style” pyrrhotite-pyrite-pentlandite-chalcopyrite mineralization in metabasites.

The drilling suggested that Layden Showing-style “metabasite” extends for at least 220 x 100 x 50 m. The showing correlates with a weak, shallow EM conductor and drilling on another conductor 700 m to the northwest of the Layden intersected 1 to 5 cm thick massive sulphides in metabasite.

Little work was carried out in the period 2008-2020 other than two airborne EM surveys and sporadic small soil sampling programs until Churchill’s work commencing in 2021.

1.4 Geological Setting and Mineralization

The exploration target within the Taylor Brook Property is a magmatic Ni-Cu-Co-(PGE) sulphide deposit, which is suggested by the magmatic mineralization as exposed and drilled at the Layden Showing.

The Property claims are predominantly underlain by Neo-Proterozoic quartzofeldspathic and mafic gneisses, and amphibolites of the Long-Range Gneiss Inlier of the Humber Zone. The oldest rocks in the Inlier comprise poly-deformed, leucocratic to mesocratic quartzofeldspathic gneiss, along with lenses of granitic orthogneiss (derived from plutonic protolithologies) and amphibolites. The inlier and its lithologies correlate with the Grenville Province of the Canadian Shield, and specifically represent the eastern edge of the Canadian Shield.

The LRI basement metamorphic rocks are intruded by numerous charnockite-granite to granite bodies (35% of LRI). The 175 km² layered Taylor Brook Gabbro Complex intrudes the southeast portion of the Long-Range Inlier, 1.5 km east of the Property.

Heaman et al.’s (2002) U–Pb geochronological data for the basement metamorphic rocks and granitoids in the LRI suggest a long period of crustal residence and evolution within the inlier ranging from 1530 and 985 Ma (i.e., over 545 Ma). Most of the basement gneiss has been dated at 1510–1450 Ma, equivalent to the Pinwarian of the Grenville Province. But even older Labradorian gneiss (ca. 1630 Ma) may be present in the LRI. According to Heaman et al. (2002), granites intruded the LRI basement in two distinct episodes; 1032–1022 Ma, and 993–985 Ma. A Silurian U–Pb age of 430.5 ± 2.5 Ma was obtained for the Taylor Brook Gabbro Suite and as such represents the first documentation of Silurian magmatism in the inlier (Heaman et al., 2002).

The Silurian Taylor Brook Gabbro Complex (“TBGC”) intrudes the LRI gneisses on the lower southeast side of Licence 031511M, and covers a large portion of License 032488M. Owen (1991) describes the complex as consisting of layered, medium-grained, mesocratic

gabbro, commonly with subophitic textures. Owen noted that the Pgb complex overlies the edge of an elongate gravity high (35 mgals) mainly located within the LRI gneiss. He concluded that the anomaly suggests that the gabbro might extend beneath the gneiss complex at depth, and therefore would underlie the Layden Showing.

Younger Cambro-Ordovician schist and Carboniferous conglomerate crop out at the southeastern edge of the map and are interpreted as being part of the Deer Lake basin stratigraphy within the Doucer Valley Rift System. The basin is interpreted to be 2-5km deep based on seismic data (Hinchey et al., 2022).

Churchill's geological, petrographical, lithogeochemical and age-dating work in 2021-22 established that previous workers' amphibolites, metabasites, and Sulphide-Bearing Intrusive Phase ("SBIP") in the area of the Layden Showing are all part of the Layden Gabbronorite intrusive and Layden Breccia pulses. The gabbronorite is a ~200m x 400m x 300m thick, Silurian-aged gabbronorite/gabbro plug, deformed by isoclinal eastward dipping folding, and later mineralized pulses of sulphide-bearing noritic magma that formed extensive sulphide breccias (termed herein Layden Breccia Pulses) above more massive/net-textured mineralization seen on surface at the Layden Showing.

Work to both the south and north of Layden by Churchill has now established that similarly aged gabbros and gabbronorites exist as a linear trend stretching from the South Lobe of the TBGC approximately 8-10km to the SSE, and at least two kilometres to the NNW. This trend is referred to as the Layden Intrusive Trend, and is interpreted as a sill-like feature of the same relative age as both the TBGC, and the mineralized Layden Breccia Pulses.

1.5 Deposit Type

Based on historical exploration work, the primary target for the Taylor Brook Property is a magmatic sulphide system with associated nickel, copper, cobalt and platinum group elements (PGE), typical of mafic to ultramafic-hosted deposits. These deposits are found in several locations across Canada, most significantly in the Voisey's Bay area of Labrador, the Raglan belt of northern Quebec, and the Thompson belt in northern Manitoba. Most fundamentally, nickel, copper, and PGE deposits are associated with igneous rocks that form from the partial melting of mantle material.

These types of magmatic deposits can be subdivided into distinct types based on the lithology and nature of associated mafic-ultramafic magmas, depth of emplacement, abundance of sulphide minerals, relative proportion of metals, and position of the ores within the intrusion (Zientek et al, 2017). The Taylor Brook, Layden-style mineralization best fits conduit-type deposits that are associated with sill complexes and dyke swarms, as opposed to reef-type deposits in layered intrusions.

1.6 Exploration

Churchill has carried out ~\$5million of exploration at Taylor Brook through 2021 and 2022 that began with a helicopter-borne magnetic and time domain electromagnetic (“VTEM”) survey carried out in February and March of 2021. Fieldwork commenced in September of 2021 through to early December and included core drilling, ground magnetic and BHEM surveys, and prospecting/geochemical sampling. Activities recommenced in late April 2022 and ran through to mid-November. This work included more drilling, BHEM, surface TDEM surveys, soil sampling and further prospecting/geochemical sampling.

The 2021-2022 exploration by Churchill are described in detail in this report, and have included a great deal of petrographical, lithogeochemical and age-dating work on sampled gabbroic rocks of the mineralized Layden Gabbro norite as well as along the Layden Intrusive Trend, and the TBGC, to establish the common petrographic/geochemical signature similarities, age-relations and interpreted emplacement model that now guides on-going exploration.

Drilling, geological mapping, and geophysical surveys indicate that the mineralized outcrop at the original Layden Showing appears to be part of a much larger magmatic intrusive gabbro norite plug termed the Layden Gabbro norite that strikes east-southeast, plunging to the southeast, with significant thicknesses based on drill intersections. The Layden Showing is part of a much larger system of mineralized Layden Breccia Pulses which are discrete, magnetic, gabbroic to pyroxenitic (field classifications) intrusions that brecciate the host gabbro norite plug, in which the Ni-Cu mineralization takes the form of pods, thin horizons, and blebs of pyrrhotite, pentlandite and chalcopyrite which brecciate the Layden Gabbro norite.

Massive and net-textured sulphide horizons to ~4m in drilled thickness have been intersected by Churchill over ~100m to the north of the Layden Showing, and within a further ~100m of strike within the Western Dyke which intersects the Layden Gabbro norite along its northwestern margin.

1.7 Conclusions

The main mineral exploration target identified to date on the Taylor Brook Project is the magmatic sulphide Ni-Cu±Co±PGE mineralization seen at the Layden gabbro norite plug, and interpreted to have originated within the ~10km long Layden Intrusive Trend. This mineralization is hosted by olivine-biotite bearing intrusive pulses of noritic composition, that brecciate both Grenville gneiss and the Silurian Layden Gabbro norites, and is probably associated with the Taylor Brook Gabbro Complex, with the highly magnetic South Lobe thought to be a possible source.

Geochemically, the Layden intrusive pulses appear to have been a highly contaminated mafic intrusive; the contaminant(s) being Zr and K₂O-rich crustal material such as the regional Grenvillian gneiss. The Layden Intrusive pulses produced massive and net-textured sulphide lenses in the southern portion of the Layden Gabbro norite, and sulphide-cemented breccias

through its northern portion. Churchill's drilling and mapping indicate that the Layden Gabbronorite extends over an area of at least 200m x 400m x 300m deep, with deformation primarily seen as tight isoclinal folding inclined ~60 degrees to the east, ie. Towards the Taylor Brook Gabbro Complex.

Complicating the picture is the sinistral Layden Fault with 100-200m of left-lateral offset, such that to date Churchill has not yet intersected the mineralization on the east side of this structure.

The Layden intrusive breccias have a weak to moderate EM conductor expression (but are strongly magnetic), whereas the more massive sulphides are seen as strong, but thus far small, conductor plates in the Layden Intrusive area. The Layden gabbronorite is moderately magnetic compared to the breccia pulses. Overall, geophysical expressions and geological modelling suggest that the intrusive, at this location, has a more "pipe-like" structure than classic chonolith intrusive form.

The sulphide mineralization consists of pyrrhotite with chalcopyrite and lesser pentlandite. The pentlandite occurs as small masses associated with pyrrhotite and as "flame-like" exsolution lamellae in pyrrhotite. The sulphides range from disseminated distributions in the Layden intrusive through semi-massive to massive zones, which show up as stronger but thus far small EM conductors due to the deformation folding. Sulphide also cements the extensive breccia units.

Importantly the host Layden Intrusive (conduit or chonolithic?) Trend appears to be relatively shallow and more or less horizontal, and has been shown by geophysics to extend for ~10km along strike to the NNW and SSE from the Layden Showing. 2022 petrographic and lithogeochemical sampling have positively identified the gabbro-gabbronorite intrusives over ~ 6km from ~2km northwest of Layden with sample DW-26 to ~4km south-southeast of Layden with sample DW-27.

Churchill attained several high-grade, shallow intersections during 2022, including these listed in Table 1-2, which exceeded 2021 and historical sampling assays. The encouraging grades and nickel tenors encountered at both Layden and the Western Dyke strongly suggest that massive sulphide accumulations are present. It is thought that the Western Dyke may represent a feeder to the Layden Intrusive, as they appear to merge based on the 2022 drilling and mapping which confirmed a southern extension to the host gabbronorite body.

Table 1-2: Taylor Brook Project Selected High-grade Sampling Summary

Hole/Channel Number	Meterage From (m)	Meterage To (m)	Length (m)	Ni %	Cu %	Co %	S %	Target Area	Specific Target
TB22-15	5.2	7.55	2.35	1.65	0.41	0.026	4.30	Layden Intrusive	BHEM conductor plate
TB22-15	9.58	14.02	4.44	2.79	0.54	0.046	7.80	Layden Intrusive	BHEM conductor plate
including	9.58	11.35	1.77	4.49	1.24	0.078	12.59	Layden Intrusive	BHEM conductor plate
TB22-19	106	106.55	0.55	2.43	0.08	0.044	6.53	Western Dyke	BHEM conductor plate
TB22-20	24.6	31.5	7.55	1.04	0.24	0.016	2.73	Layden Intrusive	BHEM conductor plate
including	24.95	26.45	1.5	1.47	0.65	0.024	4.32	Layden Intrusive	BHEM conductor plate
and	29.8	31.5	1.7	3.04	0.36	0.044	7.47	Layden Intrusive	BHEM conductor plate
Channel 33	0	1.54	1.54	3.23	0.75	0.061	11.86	Layden Showing	Washed outcrop
Channel 34	0	1.7	1.7	1.76	0.52	0.047	7.95	Layden Showing	Washed outcrop

To conclude geologically:

- 1) The intimate association of sulphide with the Layden pulses suggest that the sulphide separated from the parental mafic to ultramafic magma in manner typical of orthomagmatic nickel sulphide deposits (e.g., Voisey's Bay, Eagle, etc.).
- 2) The sulphides seem to be Ni, Cu and Co-enriched and the presence of pentlandite as the dominant nickel-bearing sulphide suggests that economically exploitable concentrations of at least Ni may be associated with the Layden pulse magmatism (i.e., Ni is not present solely as a trace element in pyrrhotite).
- 3) The similar relative ages of the Layden and Taylor Brook gabbroic intrusions does suggest a relationship between the two, with the highly magnetic western portion of the South Lobe of the TBGC, particularly intriguing especially given the coincident gravity anomaly.
- 4) The form of the original Layden intrusive pulses has been obscured by deformation but in its current form, the pulses appear to form a pipe-like structure plunging at ~60 degrees to the east until being offset by the Layden Fault. As pipe-like bodies, the Layden pulses may be feeders from a deeper intrusion. If the bodies were originally pipes, then more significant concentrations of sulphide may be present at depth as part of a deeper magmatic system.

The exploration rationale for this property should be based on the model that the Layden pulses are conduits of sulphide-bearing magmas. As such the conduits themselves, or underlying magmatic intrusions along the Layden Intrusive Trend from which the conduits originated, should be the primary exploration targets.

Churchill's comprehensive airborne geophysical work has outlined large-scale features controlling their emplacement, ie. the ~N-S Upper Humber Valley Fault, several dilation

zones within sigmoidal structures adjacent to the Taylor Brook Gabbro Complex, and the two prominent southeasterly trending NW-SE shear zones that cross the property are readily apparent in the magnetic data.

The resistivity interpretation emphasizes the ductile zones along the Upper Humber Valley Fault that hosts the Layden Intrusive Trend, as well as the set of southeasterly trending fault/shear zones that cross the property. The southernmost shear zone of the NW-SE set appears to be the control structure for the course change of the Upper Humber River to southeast, before it follows the more N-S Upper Humber River Fault trend. Sinistral displacement along this shear may explain the location of the Humber Gabbro norite ~1.2km to the west of the Layden Gabbro norite and magmatic trend.

The site of the Layden Gabbro norite Intrusive appears to be at the intersection of this middle southeasterly trending shear zone with the Upper Humber River Fault Zone. The upper (or more northerly) NW-SE trending shear zone appears to abut the northern lobe of the Taylor Brook Gabbro, but survey limits do not allow determination that it reaches the interior. The margin of the north lobe does appear to be disrupted where the shear intersects it, as evidenced from the magnetic data.

The magnetic inversions emphasize the linear nature of the Layden Intrusive Trend with depth, suggesting that the known mineralization at Layden is localized along the western side of the trend (ie. away from the Taylor Brook Gabbro Complex). The emplacement of Layden Gabbro norite at the intersection of the two major structures is also emphasized by the inversions (ie. the NW-SE fault zone and the Upper Humber Fault).

In the -400m to -600m depth slices, that the Layden Intrusive Trend appears to have evolved into several magnetic nodes which may represent deeper pools of magmatic material. These include one large node just to south of the Layden Gabbro norite, and another just to the north. The gap between the two nodes may have localized the somewhat offset position of the Layden gabbro norite and breccia pulses, to just west of the Layden Intrusive Trend.

The Layden Intrusive Trend models as a single highly magnetic body at depths below -400m, but with some complexity at -300m where individual nodes or bumps, particularly on the western side of the trend, may represent other mineralized intrusive areas. As well, the deeper depth slices suggest that areas where the trend is thickest are prospective targets for pools of sulphides.

The location of the TBS-1 nickel in soil anomaly is interesting as it directly overlies the most magnetic trend, and gabbroic rocks have been mapped there in follow-up prospecting.

Approximately 2km to the west of the Layden trend is a second gabbroic trend, marked by the Humber and PS1-PS2 gabbro norites. This western trend appears magnetically to be a much more broken up trend than the primary Layden Intrusive Trend, and to date no mineralization has been mapped along it, however there are some moderately anomalous soil sampling targets.

1.8 Recommendations

Churchill's work to date at Taylor Brook has shown clear geochemical and geophysical relationships between the Taylor Brook Gabbro Complex and the magmatic mineralization at Layden, with the ~10km Layden Intrusive Trend thought to be the conduit between the two. Whilst this relationship needs further refining and definition through sampling, the age-relationships and recognition that the Layden rocks are not Grenvillian aged, is hugely important to understanding the emplacement history of these intrusions. If a magmatic nickel deposit or camp is present in Western Newfoundland, the Taylor Brook Project is a most likely spot, and all exploration data derived by Churchill continue to reinforce this model.

The authors therefore recommend the following 2023 exploration priorities for the project:

1.8.1 Exploration of the Layden Magmatic Trend and Taylor Brook Gabbro Complex

The following is recommended:

1. Continuation of soil sampling and prospecting along the entire Layden Intrusive Trend including margins with the Taylor Brook Gabbro Complex. As more access is created, more of the intrusive rocks as extant can be mapped and sampled for lithogeochemistry and petrography. A Beep Mat should be added to the prospecting to locate small sulfide occurrences <2m beneath cover.
2. The VTEM survey data along the southern portion of the trend and into the South Lobe of the TBGC should be revisited, with the view of refining interpretations and defining targets for follow-up. Expand the structural interpretation of the regional and detailed Aeromagnetics, VTEM Resistivity and the Digital Elevation Model data.
3. Heli-GT surveying of the southernmost area of the project should be completed, which should include more high-resolution data over the South Lobe of the TBGC. Add these data into the expanded structural interpretation.
4. Stripping and channel sampling of the TBS-1 target, along with a detailed CSAMT survey and then drilling if encouraged.
5. A structural kinematics study on the geophysical dataset should be carried out to augment the present structural interpretation. This should involve both the expanded interpretation of structures from geophysics plus structural field observations and interpretation by senior structural geologists. The idea of a transpressional zone in the Layden area should be tested. The idea of "structural

processes related to dilations and traps created by trans-extension in strike-slip fault” should be tested.

6. Continue to use lithogeochemical REE and MgO data from Layden Intrusive Trend gabbroic rocks to establish vectors towards mineralization centers, ie. Mineralized Layden Breccia type intrusives.
7. Expand the Surface TDEM coverage along the Layden Intrusive Trend over priority target areas determined from the structural analysis to detect massive sulfide drill targets.

1.8.2 Deeper Drilling of the Layden Intrusive Area

The following is recommended:

- a) A detailed Controlled Source Audio-Magnetotelluric (“CSAMT”) survey should be carried out over the Layden Gabbroic rocks to better model the locations of the breccias, high-grade sulphides, and conductor plates, as well as fault and shear structures. Calibrate the CSAMT parameters for ideal resolution in this environment. Determine if mapping subsurface Resistivity down to 1km+ with CSAMT can elucidate lithology, structure and possible conduits within structures for hosting magmatic intrusives and feeder zones that could host sulfide mineralization.
- b) Conduct a test of the Mobile MT (“MMT”) system from Expert Geophysics, and calibrate it against the ground CSAMT surveys, to determine if structure and conduit systems can be mapped at the property scale cost effectively. The Layden Gabbroic rocks should be flown as a test, with the survey continuing on subject to a satisfactory test in comparison with the CSAMT, which will be higher resolution and deeper looking.
- c) If the MMT test is not satisfactory, expand the CSAMT coverage along the Layden Intrusive Trend to search for more possible conduits.
- d) Deeper drilling should be conducted at the Layden Gabbroic rocks, concentrating on the southern portion of the intrusion where a “keel” has been interpreted. Conduct BHEM on all holes to detect massive sulfides offhole. Test the “keel” interpretation using CSAMT.
- e) Drill platform holes into deep possible conduit zones identified from the CSAMT and MMT and conduct BHEM on all of these holes to detect massive sulfides off-

hole. A search radius around the hole of 300m on average should be considered for large massive sulfide bodies, and a smaller search radius if smaller massive sulfides are desirable targets. The spacing of these platform holes along strike should be driven by target size and the interpretation of deep conduits. This approach is based on the assumption that the Layden Gabbro-norite mineralization is indicative of a larger sulfide system at depth and/or along strike.

- f) Induce Polarization (“IP”) surveys IP should be tested over the Layden showing and compared to the known sulfide intersections. If a positive correlation with the net-textured/disseminated sulphides is established, this signature should be used and the IP survey can then be expanded along the Layden Intrusive Trend structure to search for more conduits containing sulfide breccia, towards the goal of detecting a large tonnage sulfide breccia drill target. This approach could be considered a fall-back plan if the EM fails to detect massive sulfides, however this deposit model is actually present at Norilsk and is independent of a massive sulfide model.
- g) Drill test the other VTEM targets immediately to the north of the Layden Gabbro-norite, especially where resistivity inversion data define another ductile zone, and the magnetic inversions suggest that the Layden Intrusive Trend continues into this area.

1.9 Budget Estimate

The exploration program recommended above, before final decisions on the scope of potential CSAMT, MMT and IP surveys, has an overall estimated cost of ~\$2.0 million, including contingency, as per Table 1-3 below.

Table 1-3: Budget Estimate

Taylor Brook Project 2023 Fieldwork Components	Units	Estimate
Reprocess/Reinterpret VTEM Survey		\$20,000.00
Accommodation and Meals		\$200,000.00
Complete Soil Sampling Coverage*	5000	\$500,000.00
Geology/Prospecting/Kinematics	60 days	\$120,000.00
CSAMT/MMT/IP Test Surveys over Layden		\$300,000.00
Heli-GT magnetic gradiometer surveys	1050 line km	\$100,000.00
Drilling Program (all inclusive)*	2500m	\$500,000.00
Televiewer/BHEM Surveys		\$100,000.00
Contingency at 10%		\$180,000.00
Total		\$2,020,000.00
* including sample analysis		

Follow-on work should take the form of expanded coverage of the best performing geophysical surveys along the Layden Intrusive Trend, as well as deeper drilling and borehole EM surveys in the Layden Showing area. Follow-up stripping and drilling on other geochemical/ geological/geophysical conductor targets that proved positive for Ni-Cu-Co mineralization along the Layden Intrusive Trend and into the Taylor Brook Gabbro Complex.

2.0 INTRODUCTION

This independent technical report on the Taylor Brook Property (“Property”) in the western White Bay area of Newfoundland and Labrador, Canada, was prepared by Dr. Derek Wilton, P.Geo., of Terra Rosetta Inc. (“Terra Rosetta”), St. John’s, NL, and Mr. Jeremy S. Brett, M.Sc., P.Geo., of Toronto, ON, assisted by Mr. Paul Sobie P.Geo., Chief Executive Officer & Director, Churchill Resources Inc. (“Churchill”). Churchill is headquartered at Suite 505, 133 Richmond St. West, Toronto.

Churchill optioned the original two license property from Altius Resources Inc. (“Altius”) of St. John’s, NL, as per a formal agreement on 18 December 2020. Churchill entered into a Reverse Takeover Agreement (“RTO”) with 9 Capital on 23rd December, executing the definitive business combination agreement on 31 January. The RTO was announced in press releases dated 23 December, 2020, and 01 February, 2021. Since March of 2021 Churchill has expended ~\$5million on exploration at Taylor Brook and has significantly expanded the land holdings for the project from the two licenses optioned from Altius, to a total of nine licenses. The two original Altius licenses were formally requested to be transferred to Churchill on October 14th, 2022, and were done so on 16th of November, 2022 by the NL Department of Industry, Energy, and Technology (DIET).

This report is an Independent Technical Report prepared to Canadian National Instrument 43-101 (“NI 43-101”), Form 43-101F1, Technical Report and Companion Policy 43-101CP standards. The report assesses the technical details and economic potential of the Property and recommends a follow up program and budget.

Churchill is a junior exploration company trading on the TSXV – Exchange (CRI.V). This report will be used to support corporate development activities and filings with the appropriate regulatory authorities.

The report has been prepared by Dr. Derek H.C. Wilton, P.Geo., retired professor of Economic Geology at Memorial University and presently an Honorary Research Professor there, and Jeremy S. Brett, P.Geo., Senior Geophysical Consultant. Mr. Sobie, CEO of Churchill, has contributed to the report as he was the virtual exploration manager for the Company’s activities during 2021-22.

Dr. Wilton has past and on-going consulting and academic experience on the project and Mr. Brett managed and interpreted all airborne and ground geophysical surveys on the property, that forms part of this report.

Mr. Sobie, CEO of Churchill, was involved in a managerial/interpretative capacity for all aspects of the work carried out on the project and visited the project numerous times.

2.1 Authorization and Terms of Reference

Terms of reference for this report were established through discussions between Churchill staff and the authors in January, 2023, and Churchill retained the authors to prepare this Independent Technical Report conforming to National Instrument 43-101 standards. The report was prepared in St. John's and Toronto, Canada, in May-July, 2023.

2.2 Qualifications of the Authors

Two of the authors of this report are independent Qualified Persons as defined under NI 43-101 and have carried out all work associated with report preparation on a fee-for-service basis. The authors are Dr. Derek H.C. Wilton, P.Geo., long-time professor of Economic Geology at Memorial University and presently Honourary Research Professor there, and Mr. Jeremy S. Brett, M.Sc., P.Geo., Senior Geophysical Consultant, respectively. Paul Sobie, CEO and Director of Churchill, is not independent, but has contributed to the report.

Wilton has past consulting and academic experience on the project and Brett is a senior geophysical consultant who managed and interpreted the airborne electromagnetic ("EM") geophysical survey on the property, that forms part of this report. Wilton has specific knowledge of the geology and mineralization types detailed in this report (e.g., Collins and Wilton, 2005), and has participated in exploration and development projects in Newfoundland and Labrador (Evans-Lamswood et al, 2000; Wilton et al., 2015). Wilton wrote a report on the petrography of host rocks from the Layden Showing for Altius in 2000 (Wilton, 2000) and visited portions of the property in 2002 with Mr. Roland Butler of Altius. Dr. Wilton continues to work with Churchill on the project and manages geochemical and age-dating data collection and interpretation.

Brett has over 29 years of consulting experience with most types of airborne and ground geophysical methods, including the Geotech VTEM helicopter borne Time Domain Electromagnetic system, the Heli-GT gradiometer system, and the surface and borehole time domain electromagnetic systems, used on the Taylor Brook Project as described in this report. He is also versed in the application of many ore deposit models to geophysical data, including many models for nickel-copper exploration, and is adept at the application of geophysical modeling and inversion for exploration targeting.

Neither of the authors of this report (nor their family members or associates) have a business relationship, other than acting as independent consultants, with Churchill or any associated company, nor with any company mentioned in the report, which is likely to materially influence their impartiality or create the perception that the report could be compromised or biased in any way. The views expressed herein are genuinely held and deemed independent of Churchill.

Moreover, neither the authors of the report nor (nor their family members or associates) have any financial interest in the outcome of any transaction involving the properties considered in this report, other than the payment of normal professional fees for the work undertaken in their preparation (which are based upon hourly charge-out rates and reimbursement of

expenses). The payment of such fees is not dependent upon the content or the conclusions of either this report, or any consequences of any proposed transaction.

Churchill has accepted that the qualifications, expertise, experience, competence, and professional reputations of the authors are appropriate and relevant for the preparation of this report. Churchill have also accepted that the authors are members of professional bodies that are appropriate and relevant for the preparation of this Report.

2.3 Scope of Work and Sources of Information

Churchill commissioned the authors to prepare this technical report on the Property and to develop an exploration program with (an) associated budget(s). The purpose of the report is to assess the economic potential of the Property as a property of merit for Churchill.

In preparing this report, the authors reviewed geological reports and maps, miscellaneous technical papers, company letters, memoranda, and other public and private information as listed in the “Reference” section (Section 19) of this report. As such the material in this Technical Report is a compilation of available information. References in this Technical Report are made to publicly available reports, some of which were written prior to implementation of NI 43-101, including government geological publications and Mineral Assessment Reports that were filed with, and are available through, the Newfoundland and Labrador Department of Industry, Energy and Technology (“DIET”).

The report is based, in part, on personal geological observations from past field examinations of the property and vicinity, along with selective core logging and sampling of historical holes at the DIET core storage facility in Buchans by Dr. Wilton, and core from the 33 holes drilled to date by Churchill, as well as selected surface samples of interest.

This report is based on information known to the authors as of June 1, 2023.

Unless otherwise noted, all measurement units used in this report are metric, and currency is expressed in Canadian Dollars.

3.0 RELIANCE ON OTHER EXPERTS

Wilton checked mineral exploration title status and assessment reports on the property on the NL Department of Industry, Energy, and Technology (DIET) website; <https://gis.geosurv.gov.nl.ca/> up to June 10, 2023.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 The Taylor Brook Property

The mineral exploration licences that comprise the Taylor Brook Property, as defined in this report, are registered to Churchill with the exception of two small internal licenses 026955M and 027616M within the overall Taylor Brook Project as per Table 1, having secured option agreements with the owners on August 31st, 2021. The company holds a 100% interest in each of the other seven titles according to the DIET Geoscience Online website. The Taylor Brook Project consists of 705 map staked claims totalling 17,625 hectares (176.25km²) held under nine mineral licences of which seven are held by Churchill, as per Table 4-1 and Figure 4-1.

A mineral licence gives the licensee the exclusive right to explore for minerals in, on, or under the area of land described in the licence; it does not include surface rights. Regarding the Property, the Mineral Licenses are located on Crown land and legal access to the areas is not an issue. There are no other known factors or risks that may affect access, title, or the right and ability to perform work on any of the properties. These holdings are located on NTS map sheet 12H/11 (Figures 4-1 and 4-2).

Table 4-1 provides a summary of the Property Mineral Rights and lists current government records of excess assessment expenditures for the licenses making up the Taylor Brook Project. All are in good standing for a number of years with the exception of Taylor Brook South licenses 033256M and 033257M, and Cormack license 032798M/036322M (license was recently renamed 036322M upon reducing its size), which requires \$128,771.12 in Year 2 and Year 3 expenditures. Churchill has received a one-year C2 extension for 32798M/036322M to 30 June, 2024 and has paid \$62,750.00 for the security deposit that will be refunded upon approved assessment expenditures being filed.

The southern licenses of the project are to receive a large amount of work in summer and fall of 2023 and will therefore also be in excess expenditures by year's end.

Table 4-1: Taylor Brook Project Claims

Property Name	License Number	Number of Claims	Number of Hectares	Year of Tenure	Expiry Date	Excess Expenditure
Taylor Brook	027290M	13	325	5	29-Aug-2024	\$1,953,538.27
Taylor Brook	031511M	213	5,325	3	10-Nov-2026	\$178,919.97
Hicks	027616M	4	100	3	30-Jan-2025	\$856,914.81
Russell	026995M	15	375	3	30-Jan-2023	\$78,928.63
TB South	032488M	214	5,350	3	26 May-2026	\$348,710.06
TB South	033255M	13	325	3	14-Aug-2026	\$106,722.21
TB South	033256M	19	475	3	14-Aug-2026	\$102.94
TB South	034257M	13	325	2	13-Apr-2027	\$4,223.35
Cormack	032798M/ 036322M	209	5,225	3	20-Jun-2026	-\$128,771.12
	9	705	17,625			

Figure 4-1: Location Map of the Taylor Brook Project, Newfoundland and Labrador

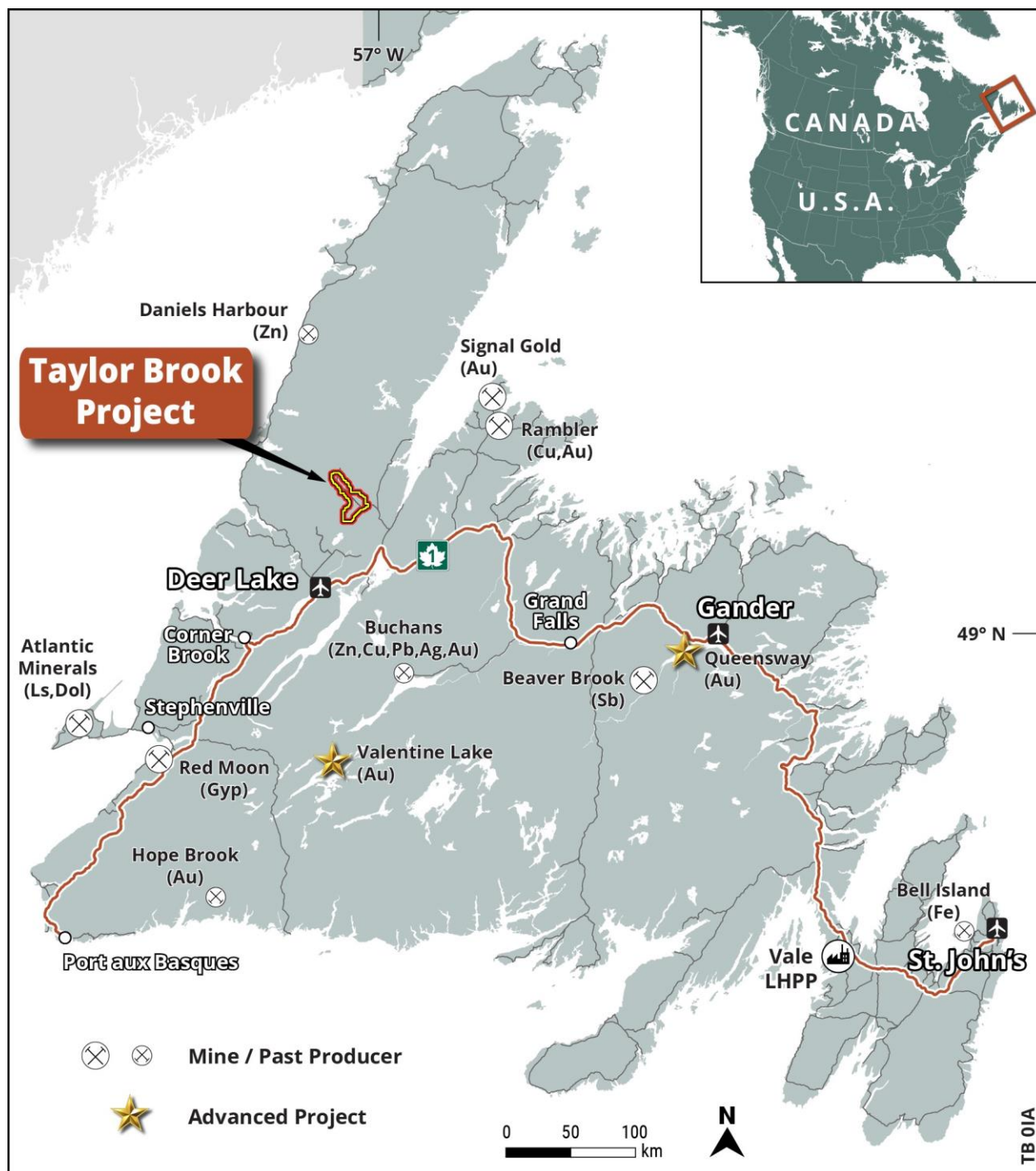
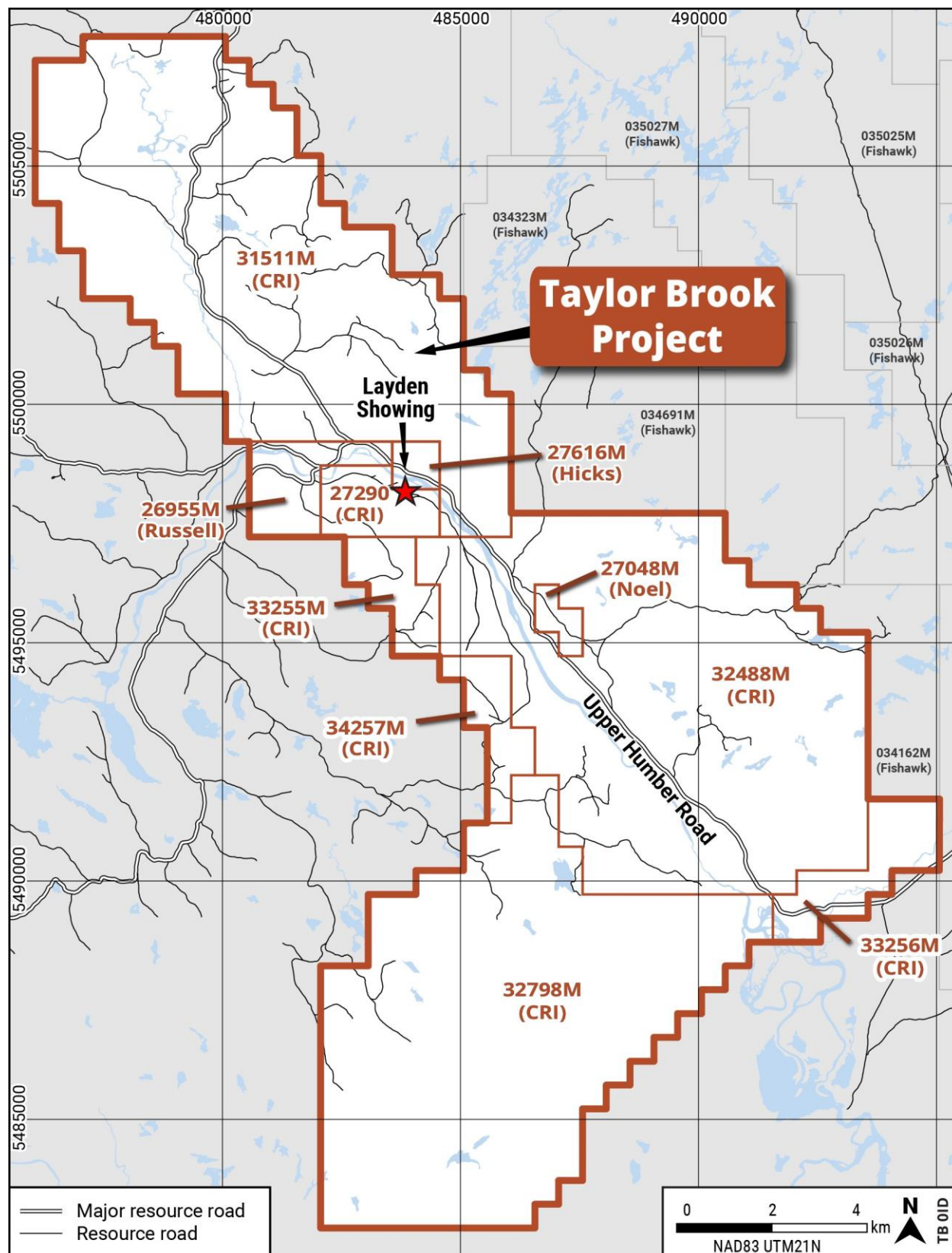


Figure 4-2: Map of the Mineral Licences that constitute the Taylor Brook Project



4.2 Conditions of Exploration Title

Mineral exploration titles in Newfoundland and Labrador are defined and managed under the terms and conditions of the Mineral Act (RSNL1990), and associated Mineral Regulations as amended to date. The description of the system presented below is summarized from information made available by the Geological Survey of Newfoundland and Labrador (DIET), particularly the Staking and Exploration Guidebook.

The basic unit of map staking in Newfoundland and Labrador is the claim, which is a 25 ha² (500 m x 500 m) area, being one quarter of a UTM grid square (1 km x 1 km) and bounded on one corner by such a UTM grid square. The UTM grid square is the one thousand metre grid used on the 1:50,000 National Topographic Map Series (NAD 27). An application for a map staked licence is made on-line through the Mineral Rights Administration System (MIRIAD). A licence can contain a maximum of 256 claims, all of which must be coterminous (“coterminous” is defined as having at least one side in common). There are no restrictions on the shape of mineral licences. Licences extended past year twenty have a maximum size of 100 claims. A mineral licence may be converted to a mining lease at any time if the owner deems there to be sufficient mineral resources to warrant conversion and further work.

Each claim staked in a licence requires payment of a CDN \$65 fee. This total includes a non-fundable CDN \$15 recording fee and a CDN \$50 security deposit that will be refunded upon submission and acceptance of a report covering first year work requirements for the licence (so-called “assessment report”). If a map staked licence has been partially surrendered in the first year and the assessment work required has not been completed, a portion of the deposit in proportion to the partial surrender is forfeited. Also, if a map staked licence is cancelled or surrendered in the first year, the security deposit is forfeited.

The Mineral Act and Regulations in Newfoundland and Labrador state that there is a 30-day wait period for a staking application to be reviewed prior to a mineral licence being issued. After the licence is issued (Issuance Date), the licence holder has 365 days until the Anniversary Date/Work Due Date during which required first year mineral assessment work must be carried out. Sixty-days after the Work Due Date, an assessment report documenting the work performed and a statement of expenditures must be submitted to the Mineral Lands Division.

A mineral exploration licence is issued for a term of five years (which is renewable for three additional five-year terms and 10 additional one-year terms) and can be held for a maximum of 30 years provided that:

- the minimum annual assessment work is completed
- the annual work is reported upon
- the mineral exploration licence is renewed every five years

The minimum annual assessment work values required to be completed on each claim held in a licence are:

- CDN \$200 / claim in the first year
- CDN \$250 / claim in the second year
- CDN \$300 / claim in the third year
- CDN \$350 / claim in the fourth year
- CDN \$400 / claim in the fifth year
- CDN \$600 / claim / year for years six to ten, inclusive
- CDN \$900 / claim / year for years eleven to fifteen, inclusive
- CDN \$1,200 / claim / year for years sixteen to twenty, inclusive
- CDN \$2,000 / claim/ year for years twenty-one to twenty-five, inclusive
- CDN \$2,500 / claim/ year for years twenty-six to thirty inclusive

Excess work performed each year can be carried forward for up to ten years. This means that should no other work be performed on the licence, and adequate excess expenditures exist, the annual requirement will be allocated from the excess until such time the excess runs out or the ten-year period is reached – whichever comes first.

Should a licence holder be deficient in the required expenditures for a licence, security in the amount of the deficiency can be submitted. This requires, however, that the deficient work be completed in the next year, in addition to the minimum assessment work amount required during that subsequent year. This is referred to as a Condition 2 (CON2) extension and the security is refundable upon acceptance of report documenting that the required expenditures were incurred.

For a licence to remain in good standing with the Government of Newfoundland and Labrador, the licence has to be renewed every fifth year on the anniversary date. The renewal fees escalate for Term 1, Term 2 and Term 3 and are as follows:

- Term 1 Renewal (year 5 of licence) is CDN \$25 / claim
- Term 2 Renewal (year 10 of licence) is CDN \$50 / claim
- Term 3 Renewal (year 15 of licence) is CDN \$100 / claim

4.2.1 The Exploration Approval Process

Any license holder who intends to conduct an exploration program must obtain an exploration approval from the Department of Natural Resources before the activity can commence.

Expenditures on the following, within the area of the licence, shall be credited as assessment work when carried out for the purpose of exploration.

- (a) prospecting
- (b) trenching, pitting and stripping
- (c) line cutting and flagging
- (d) surface and underground geological surveys
- (e) airborne, surface underground geochemical surveys
- (f) airborne, surface, underground geophysical surveys and borehole geophysical surveys.
- (g) photogeological and remote imagery interpretations
- (h) drilling, and core transportation to storage facilities of the Department of Natural Resources
- (i) land surveys
- (j) topographic surveys
- (k) shaft sinking and other underground exploration work
- (l) engineering evaluation reports
- (m) beneficiation studies, analysis, assays and microscopic studies, and
- (n) others as may be approved by the Minister

Note: Staking costs are not an acceptable assessment expenditure

4.2.2 Transfers and Options

A license may be transferred at any time during its currency by completing and forwarding to the Mineral Claims Recorder a duly executed transfer document. As well, all options and agreements relating to minerals or rights to or in respect of minerals must be registered in registries maintained by the Mineral Claims Recorder's office, DIET. Otherwise, the transaction is not valid and has no effect in law.

4.3 Underlying Agreements

On August 30, 2021, the Company entered into two option agreements on properties adjacent to the Layden Ni-Cu-Co showings at the Taylor Brook Property.

Terms of Cameron Hicks TB Option Agreement:

Under the terms of the Hicks TB Option Agreement, the Company optioned 4 contiguous claims covering a 1.0km² area under mineral License 027616M. On execution of the Hicks Option Agreement, the Company paid \$7,500 and agreed to issue 43,772 common shares

(issued) within five days of receipt of regulatory approval for the Hicks TB Option Agreement. Subsequent option payments over the next 24 months include:

- On or before August 30, 2022: payment of (i) \$15,000; (paid) and (ii) issuance of 45,000 common shares (issued); and
- On or before August 30, 2023: (i) payment of \$50,000; and (ii) issuance of 100,000 common shares.

On execution of the Hicks TB Option Agreement, the Company granted a 2.0% Net Smelter Returns royalty (“NSR”) to the optionor, of which 1.0% of the NSR may be purchased by the Company for \$1 million.

Terms of Terrence Russell TB Option Agreement:

Under the terms of the Russell TB Option Agreement with the second optionor, the Company optioned 15 contiguous claims covering a 3.75km² area under Mineral License 026955M. On execution of the Russell TB Option Agreement, the Company paid \$7,500 and agreed to issue 43,772 common shares (issued) within five days of receipt of regulatory approval for the Russell TB Option Agreement. Subsequent option payments over the next 24 months include:

- On or before August 30, 2022: payment of (i) \$15,000 (paid); and (ii) issuance of 100,000 common shares (issued); and
- On or August 30, 2023: (i) payment of \$50,000; and (ii) issuance of 200,000 common shares.

On execution of the Russell TB Option Agreement, the Company granted a 2.0% Net Smelter Returns royalty (“NSR”) to the second optionor, of which 1.0% of the NSR may be purchased by the Company for \$1 million.

The Company may also satisfy \$5,000 and \$20,000 portions of the remaining cash payments for each option by issuing common shares in lieu of such partial cash payment.

4.4 Environmental Considerations and Exploration Permitting for Recommended Work

The authors are not aware of any pre-existing environmental liabilities or issues associated with the Taylor Brook land package. Exploration companies involved with the project in the past have not carried out any more advanced work than line cutting, minor surface trenching, and the drilling of 17 diamond drill holes which included establishment of drill sites and associated access trails. To the degree known to date by Churchill, none of this work is considered to have created environmental liabilities of note on the property, nor should any

of these activities accrue liabilities to Churchill in accordance with the provincial regulations.

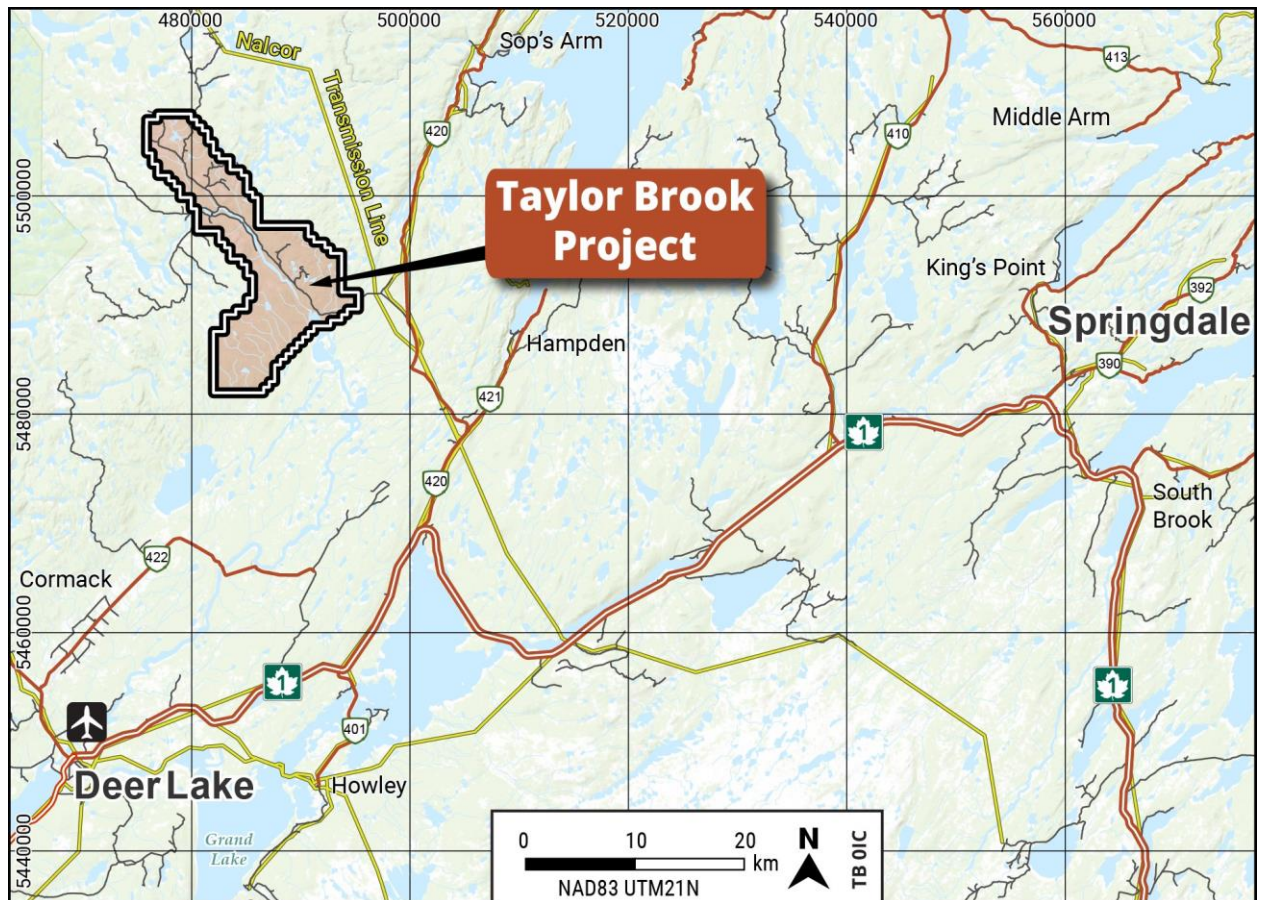
During its exploration program, Churchill has cut lines through forest, drilled diamond drill holes, cleared pre-existing roads, cleaned off pre-existing trenches, collected geological materials including rocks and soil samples, and conducted ground-based geophysical surveys. According to Churchill, this work has always been completed to best industry practices and has been duly permitted in all aspects by the Government of Newfoundland and Labrador. Churchill assures that no environmental liabilities have accrued from their exploration work.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Accessibility

The Property is situated west of the Hampden – Sops Arm Highway (Route 420) near the Upper Humber River and can be accessed by travelling the Taylor Brook Resource Road (Figure 5-1). In addition, a network of secondary woods roads originating from the main resource road allow for access to most of the claims as per Figure 5-1. The claims are approximately 50 km northeast of the community of Deer Lake (access along the paved TransCanada Highway and Route 420 to the Taylor Brook Resource Road) and approximately 25 northwest of the community of Hampden access along the paved Route 420 to the Taylor Brook Resource Road).

Figure 5-1: Map of Taylor Brook Property in relation to regional infrastructure



5.2 Climate

Newfoundland has a typical northern Atlantic climate with short summers and short cold winters. The average seasonal temperatures for central Newfoundland range from 17°C in summer to -6°C in winter. Mean annual precipitation ranges from 700 to 900 mm per year with mean annual snowfall between 275 and 325 cm.

Environment Canada describes the Deer Lake region as having a [humid continental climate](#) (Köppen: Dfb) with moderately warm summers but somewhat short and cold winters. Table 5-1 provides annual climate data for Deer Lake which is similar to that of the project.

The mineral exploration season generally runs from May until late November (freeze-up). Diamond drilling, lake sediment sampling and geophysical surveys can continue through the winter months. Former mines throughout the area have all operated year round.

Table 5-1: Annual Climate Data for Deer Lake, NL

Climate data for Deer Lake, Newfoundland and Labrador													
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Record high °C (°F)	16.5 (61.7)	14.0 (57.2)	19.0 (66.2)	23.0 (73.4)	28.0 (82.4)	33.0 (91.4)	35.6 (96.1)	32.2 (90.0)	29.0 (84.2)	23.3 (73.9)	21.1 (70.0)	16.7 (62.1)	35.6 (96.1)
Average high °C (°F)	-3.1 (26.4)	-3.4 (25.9)	0.7 (33.3)	6.3 (43.3)	12.9 (55.2)	18.0 (64.4)	21.9 (71.4)	21.6 (70.9)	17.0 (62.6)	10.4 (50.7)	4.6 (40.3)	0.0 (32.0)	8.9 (48.0)
Daily mean °C (°F)	-7.2 (19.0)	-8.0 (17.6)	-4.1 (24.6)	1.9 (35.4)	7.4 (45.3)	12.2 (54.0)	16.5 (61.7)	16.4 (61.5)	12.3 (54.1)	6.6 (43.9)	1.5 (34.7)	-3.3 (26.1)	4.4 (39.8)
Average low °C (°F)	-11.2 (11.8)	-12.7 (9.1)	-8.8 (16.2)	-2.5 (27.5)	1.9 (35.4)	6.4 (43.5)	11.0 (51.8)	11.3 (52.3)	7.5 (45.5)	2.7 (36.9)	-1.6 (29.1)	-6.6 (20.1)	-0.2 (31.6)
Record low °C (°F)	-33.9 (-29.0)	-37.2 (-35.0)	-35.0 (-31.0)	-22.0 (-7.6)	-10.6 (12.9)	-4.4 (24.1)	-0.6 (30.9)	-2.2 (28.0)	-5.0 (23.0)	-10.5 (13.1)	-20.6 (-5.1)	-29.4 (-20.9)	-37.2 (-35.0)
Average precipitation mm (inches)	109.8 (4.32)	83.5 (3.29)	71.7 (2.82)	70.1 (2.76)	89.2 (3.51)	88.3 (3.48)	98.5 (3.88)	109.9 (4.33)	106.2 (4.18)	105.7 (4.16)	101.3 (3.99)	97.3 (3.83)	1,131.5 (44.55)
Average rainfall mm (inches)	24.8 (0.98)	17.3 (0.68)	27.5 (1.08)	49.8 (1.96)	84.3 (3.32)	87.8 (3.46)	98.5 (3.88)	109.9 (4.33)	106.2 (4.18)	101.0 (3.98)	74.8 (2.94)	35.6 (1.40)	817.5 (32.19)
Average snowfall cm (inches)	85.0 (33.5)	66.1 (26.0)	44.2 (17.4)	20.3 (8.0)	4.8 (1.9)	0.5 (0.2)	0 (0)	0 (0)	0 (0)	4.8 (1.9)	26.6 (10.5)	61.7 (24.3)	314 (123.7)
Average precipitation days (≥ 0.2 mm)	19.3	16.0	15.1	13.0	15.4	13.9	15.1	15.4	16.0	18.9	17.4	20.4	195.9
Average rainy days (≥ 0.2 mm)	2.7	2.9	5.6	9.5	15.0	13.9	15.1	15.4	16.0	18.7	12.6	6.8	134.2
Average snowy days (≥ 0.2 cm)	16.7	14.0	10.6	4.6	0.83	0.04	0	0	0	0.75	6.2	15.7	69.42
Source: Environment Canada ^[3]													

5.3 Infrastructure and Local Resources

There is no permanent infrastructure around the Property, excepting personal cabins. There is an abundance of waterways on and around the Property, hence water for temporary exploration camps or potential future mining and processing requirements are not considered to be problematic at this time. There is sufficient Crown land to establish exploration and construction camps. The topography is relatively steep near the Upper Humber River, but drill pads are relatively easy to construct.

The Town of Deer Lake is approximately 50 km south-southwest of the project. Aside from a modern regional airport, Deer Lake can provide a full range of exploration services. A power line passes within 10 km of the property. The port of Corner Brook, located 50 km west of Deer Lake, is only 35 km inland from the Gulf of St. Lawrence which is accessible year-round with ice breaker services required occasionally during the winter months.

5.4 Physiography

According to Churchill (2020, p.1), the Taylor Brook area is “located in an area of forested highlands with elevations ranging from less than 200 meters to greater than 500 meters above sea level (ASL). The highlands surround moderately flat terrane where the Upper Humber River and other prominent watercourses transect the project area. Vegetation covering the claim group consists of a mixture of coniferous trees with lesser deciduous varieties, and small boggy areas.

Bedrock exposure is limited by an extensive cover comprised mainly of diamicton (vener and blanket) with lesser glaciofluvial sand and gravel, and bog (Liverman and Taylor, 1990). Quaternary studies by Vanderveer (2011), McCuaig (2003) and Vanderveer and Taylor (1987) show that the area was affected by at least two and possibly three separate ice-flow events (from oldest to youngest):

- (1) eastward or southeastward from the Long-Range Mountains,
- (2) northward and north-northeastward from an ice centre south of the Taylor Brook area and
- (3) flows that were directed more towards White Bay (southeastward and northwestward) from the Long-Range Mountains and Baie Verte Peninsula respectively (McCuaig, 2003).”

The Layden Showing is on the south side of the Upper Humber River at an elevation of about 30 m above, and 200 m from, the river. The Upper Humber is a scheduled river (see Section 15.0 Other Relevant Data and Information).

6.0 HISTORY

Exploration for base and precious metals on the present property began in 1998 when access to the area and was opened with new forestry access roads. While the project has had numerous changes to its size and number of claims, the primary area of interest is the original discovery of Ni-Cu mineralization by Mr. Jerry Layden, the so-called Layden Showing.

6.1 Introduction

Table 6-1 summarizes work completed to date, which has spanned the period 1999-2020, with the definitive original work on, and around, the Layden Showing taking place from 2006-2012 by Altius and joint venture partners. Expenditures approved by the Department of Natural Resources for assessment credits from this earlier work total over \$1million.

6.2 Government Surveys and Academic Research

Owen (1985; 1986a; 1986b) provided the first regional geological mapping of the Property area at 1:50,000 scale. Owen (1990) produced a 1:250,000 scale geology map of what he termed the Long-Range Inlier along with a detailed written report (Owen, 1991), both of which covered the area of the Property. Owen and Erdmer (1989) described the metamorphic geology of, and calculated geobarometric data for, the Long-Range Inlier including portions of the Property. Heaman et al. (2002) derived several U-Pb zircon age dates for units in the Long-Range Inlier including some that were correlative with units on the Property. Hinchey (2010; 2020) mapped portions of the Property northwest of the Upper Humber River at 1:50,000 scale.

These property specific studies were supplemented a variety of regional government studies including Vanderveer and Taylor (1987), McCuaig (2003), and Vanderveer (2011). Rose (1998) completed a study of the Taylor Brook Gabbro Complex, a 175 km² (Owen, 1991) Silurian layered gabbro intrusion that occurs 1.5 northeast of the Layden Showing. Collins (2007) also examined this layered complex.

6.3 Industry Surveys

Table 6-1 summarizes historic industry exploration of the Property, spanning the period from initial discovery of the Layden Showing in 1998 to 2020. The most detailed work was completed by an Altius-Northern Abitibi Mining Corp Joint-Venture between 2006 and 2010.

Mineral exploration in the area surrounding the Property only began in the late 1990s following construction of forestry access roads into the Upper Humber River region. The first report of mineralization in the region near the property was by Owen (1985; 1986a;

1986b; 1990; 1991) who described chalcopyrite in drusy quartz vugs hosted within an amphibolite. The amphibolite outcrop was exposed as a road cut approximately 2.5 km WSW of the Layden

Showing. Hinchey's (2010; 2020) maps have neither the amphibolite outcrop, nor the chalcopyrite occurrence, plotted. Churchill (2020) reviewed exploration activities on the Property and some the following was derived from that report.

In 1998, Jerry Layden, a local prospector, prospected along the access roads transecting the area and collected outcrop samples which assayed anomalous nickel and copper values. Follow-up prospecting work led to the discovery of the Layden Showing, a high-grade nickel-copper-cobalt-PGE prospect, adjacent to a forestry access road. In 1998, Layden staked claims in the Taylor Brook area covering the showing in which Altius subsequently acquired a 100% interest shortly after the discovery. The number of claims, and hence the absolute size of the Property has changed from 1998 to 2020, but the Layden Showing remains the primary focus of interest.

6.3.1 Altius/QNI Resources 1999-2000

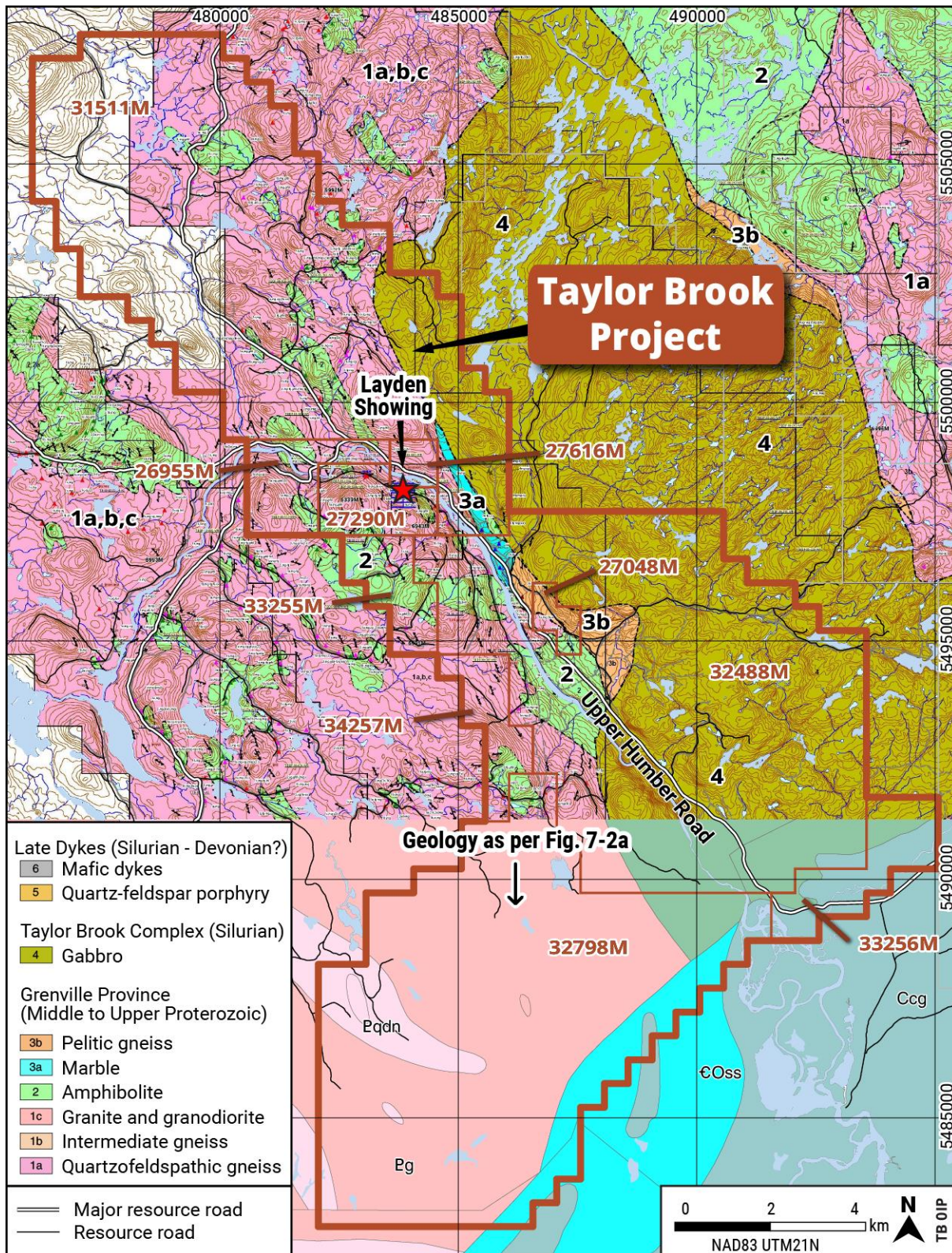
In 1999, Altius entered into a joint-venture agreement with QNI Ltd., a subsidiary of Billiton Exploration Canada Ltd., and initiated the Taylor Brook Project (Fitzpatrick and Churchill, 2000). The work included reconnaissance geological mapping and prospecting, line cutting (four-line km), grid mapping, magnetometer and VLF-EM geophysical surveys, and the digging of one trench. Thirty-two rock samples were collected and 11 grab samples from the Layden Prospect provided an average of assay values at 5.38% Ni, 1.05% Cu, 0.1% Co, 112 ppb Pt, 232 ppb Pd, and 416 ppb Au. Fitzpatrick and Churchill (2000) concluded that the host rock to the nickel sulphide mineralization is a strongly biotitic, hornblende-bearing mafic unit with a more primitive whole rock geochemistry than other mafic "intrusive" rocks on the property. Fitzpatrick and Churchill (2000) calculated Ni tenor values and Ni/Cu ratios for the Layden Showing samples and found that their ratios were greater than published values for the Voisey's Bay, Sudbury and Noril'sk deposits. They concluded that the Layden tenor and Ni/Cu ratios most closely matched those of ultramafic-hosted Ni deposits.

Figure 6-1 is a map of the Altius regional mapping, Figure 6-2 is of detailed Layden grid geology and trench locations, and Figure 6-3 is the trench map of the Layden Showing from Fitzpatrick and Churchill (2000). Whilst the regional mapping by Altius identified large units of Grenvillian amphibolite, Churchill's recent field, petrographic, lithogeochemical and age-dating work has concluded that many of these are younger Silurian gabbroic intrusions related to the Layden gabbro and/or the Taylor Brook Gabbro Complex.

Table 6-1: Taylor Brook Property Summary of Past Industry Work

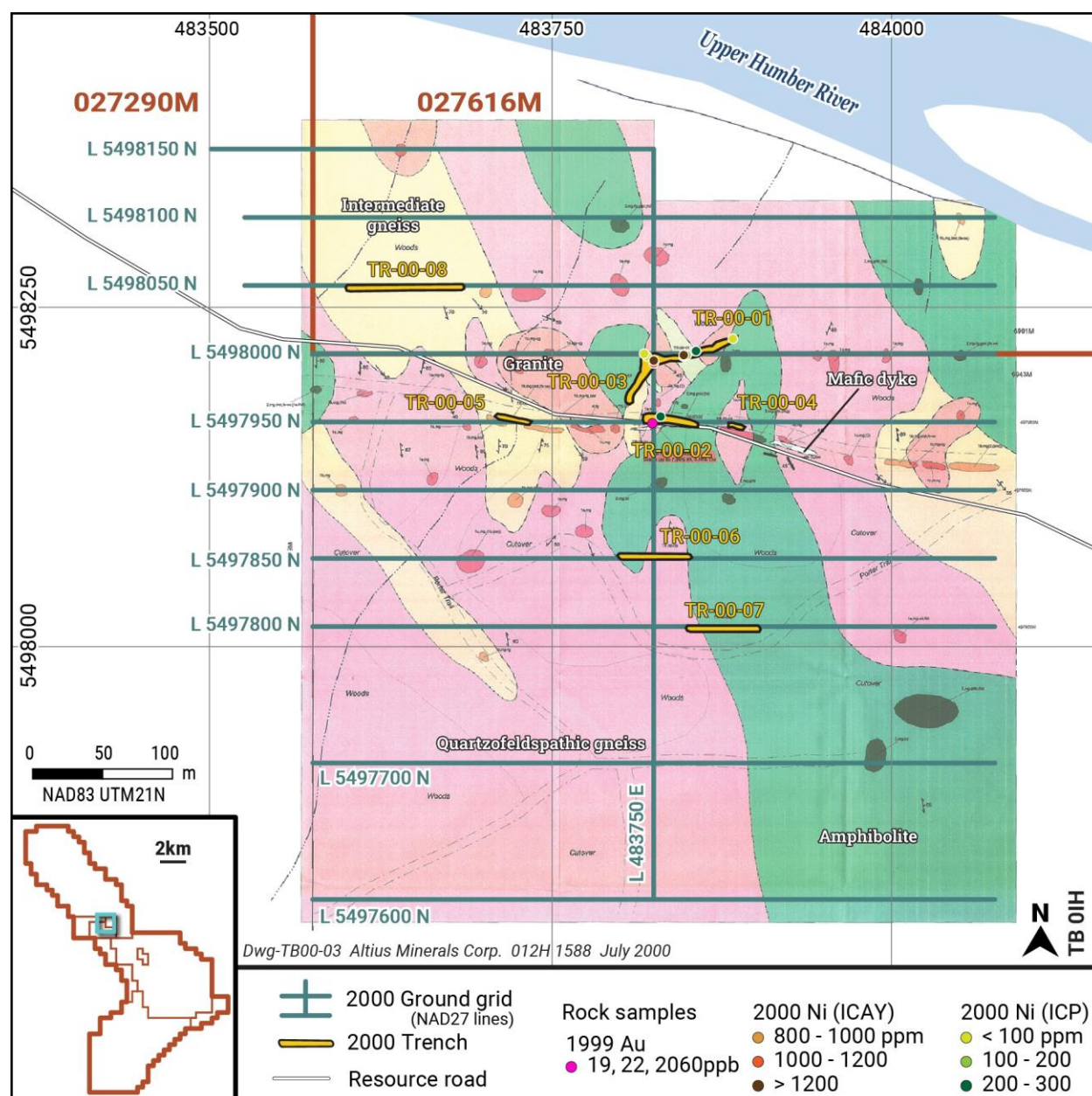
Year	Company/JVs	Exploration Activities	Important Results
1998	Jerry Layden	Prospecting, discovery of Layden Showing	High grade mineralization identified (up to 1.2% Cu, 0.19%Ni), Altius invited to property and signed three-year agreement, higher-grade material sampled (5.38% Ni, 1.05% Cu, 0.1% Co (average of grab samples))
1999-2000	Altius/Billiton (QNI) JV	Reconnaissance mapping, prospecting, lithogeochemical sampling, grid establishment, trenching (1), geophysical surveys	Definition of rock types present, property geology put in regional geological context, biotitic amphibolite host rock at Layden determined to be unrelated to mafic dykes and more primitive than other intrusions
2000-2002	Altius/Billiton (QNI) JV	Grid infill line established, geophysical surveys, trenching (8), lithogeochemical sampling, petrography	Metabasite defined as host to Layden mineralization identified, distinct from amphibolites, emplaced earlier, mineralization occurs in pyroxene-bearing migmatitic zones
2006	Altius Minerals	AeroTEM II Survey flown over Layden Showing area	Magnetic and EM data helpful. Layden area in mag low with several isolated vertical dyke-like EM conductors of short strike length
2007	Northern Abitibi Mining Corp./Altius JV	Geological mapping, trenching (10), rock and soil sampling, Beep Mat EM survey	Trenches were targeted on EM conductors and/or to trace the metabasite. Zone 50m x 15m wide outlined with disseminated to semi-massive sulphides. Soil sampling over two conductors to NW of Layden Showing positive for Ni, Cu, Co and Cr.
2007-2008	Northern Abitibi Mining Corp./Altius JV	Diamond drilling and borehole EM surveys	17 diamond drill holes totalling 2,636.29m drilled in Dec. 2007 (8 holes) and May 2008 (9 holes). Dec. cluster of holes tested metabasite north of Layden showing – expanded unit but nsv. Crone PEM on 2 holes only found strong off-hole conductor at 140m off hole 07TB-04. May holes tested 4 AeroTEM conductors and tried to hit PEM conductor. Significant Ni-Cu-Co intersections in 3 of 4 AeroTEM conductors, PEM conductor untested.
2010	Altius Minerals	AeroTEM II Survey over larger block	Numerous weak conductors to follow-up. Layden Showing response different than 2006 survey possibly due to different flight line directions.
2011	Altius Minerals	Prospecting, soil sampling	Ground truthing EM anomalies turned up modestly anomalous rock samples or geochemical anomalies in several locations. Trenching recommended.
2012	Altius Minerals	Trenching (4), mapping, sampling	2011 anomalies were trenching – no metabasite, but mafic gneiss/dykes. No significant sulphide in trenches – conductors disseminated or semi-massive pyrite
2020	Altius Minerals	Geophysical review, Leapfrog modelling of diamond drill holes	A. King review of gravity, EM positive – more conductors, and possible relationship of Layden Showing to TBGS. Higher-powered EM system recommended. Leapfrog review noted inconsistent logging nomenclature needing standardizing.

Figure 6-1: Regional Geology Map by Altius/QNI, Showing Present Taylor Brook Project Licenses (after Fitzpatrick and Churchill, 2000)



In 2000, the Altius-QNI J-V (Fitzpatrick et al., 2000) completed a variety of geophysical surveys (including max-min, magnetometer, VLF-EM, and transient EM), fill-in line cutting, geological mapping, the digging of eight trenches, lithogeochemical analyses, and petrographic examinations (the petrography was completed on nine polished thin sections by co-author Wilton).

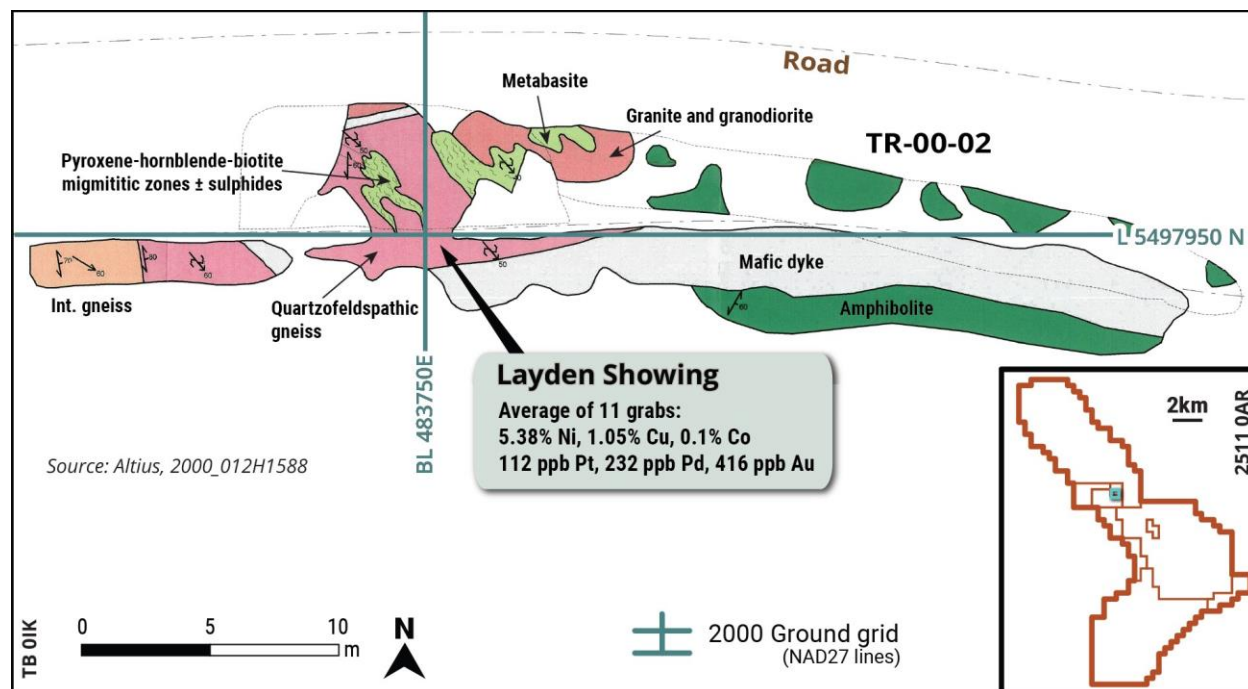
Figure 6-2: Map of Grid Geology and Trench Locations, Taylor Brook Property (after Fitzpatrick and Churchill, 2000)



“Metabasite” (defined as host rock to Layden mineralization) was encountered in one trench (TR-00-01), however, rock sampling only returned low-grade nickel and copper values. Fitzpatrick et al. (2000) concluded that the “metabasite” in the trench,

although poorly mineralized, is the same lithology as the sulphide host at the Layden Prospect. Petrographic examination of more sulphide-rich portions of the metabasite phase in TR-00-01 indicated that sulphides exhibited relict intercumulate textures.

Figure 6-3: Layden Showing (Trench TR-00-02), Taylor Brook Property (from Fitzpatrick and Churchill, 2000)



Geochemical comparisons of the metabasite and regional amphibolites indicated that the metabasites were distinctly different. Fitzpatrick et al. (2000) concluded that the sulphide mineralization is associated with pyroxene-bearing, migmatitic zones developed within the metabasite unit. QNI terminated the joint-venture agreement in September 2000. The only work completed by Altius before the 2006 AeroTEM survey was a small petrography study (Wilson and Churchill, 2002).

In 2003 Inco employees toured the property with Altius personnel; photos from that trip are provided in Figure 6-4. These photos clearly capture the breccia textures of the Layden mineralization.

Figure 6-4: 2003 Inco Field Trip to the Layden Showing (photographs supplied by R. Churchill of Altius)



6.3.2 Altius Resources 2006

In 2006, Altius commissioned helicopter-borne AeroTEM II EM and MAG surveys from Aeroquest Limited of Mississauga, ON. A total of 148.2 line-km, at 100 m line spacings, were flown which defined several EM anomalies that were subsequently ground checked during the summer of 2006. Churchill (2007) concluded that some of the anomalies were related to subcrop and outcrop of sulphide-bearing gneissic rocks.

Figure 6-5: Map of 2006 AeroTEM Survey Anomalies, and Layden Showing (after Churchill, 2007)

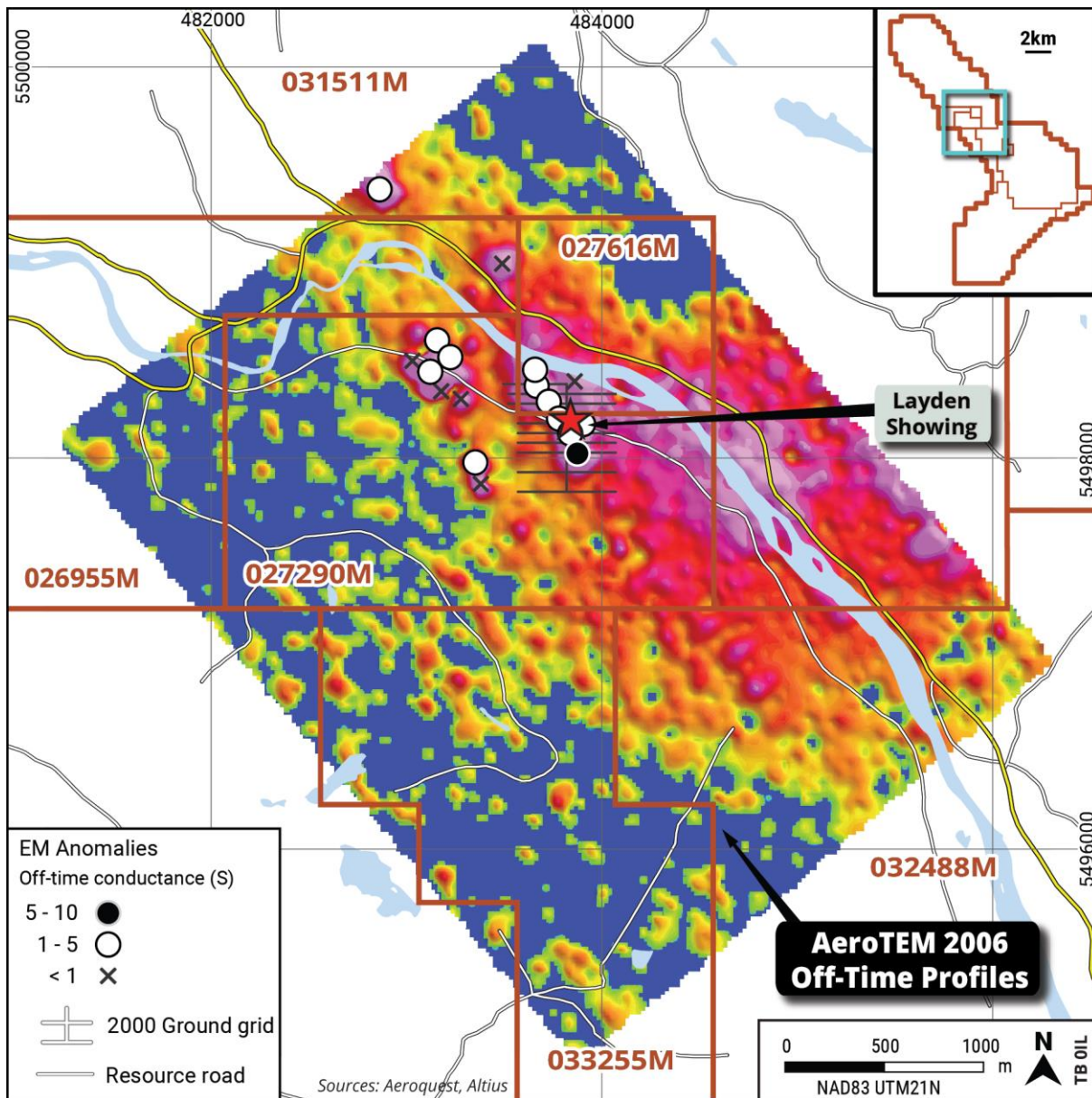


Figure 6-5, compiled from the Aeroquest report (Churchill, 2007) indicates the positions of the 2006 survey and associated anomalies with respect to the Layden Showing and grid. No further interpretative work was carried out, but the EM conductors became the focus of exploration in this area. In particular, EM conductors over the Layden Showing and one to the northwest (Figure 6-5).

6.3.3 Northern Abitibi 2007-2008

Northern Abitibi Mining Corporation (NAMC) entered into a Joint-Venture agreement with Altius in 2007 to explore the Property. Initial work in 2007 consisted of soil sampling (177 samples), trenching (10), geological mapping, rock sampling (60 samples), and a surface Beep Mat geophysical survey (Ebert, 2007). Eight diamond drill holes were completed in 2007, but this work was described in the 2008 (Ebert, 2008) report. Three nickel-in-soil soil anomalies, with 50 to 133 ppm Ni, were outlined near the Layden Showing. A 50 x 15 m pyrite-pyrrhotite $\pm$ chalcopyrite sulphide zone was uncovered in three trenches from which grab samples assaying up to 0.15% Ni and 0.47% Cu were derived (Ebert, 2007). The mapping expanded the known outcrop exposure of the sulphide-hosting metabasite. The Beep Mat survey was successful in locating at least one zone of buried metabasite. Figure 6-6 is a compilation map of the 2007 trenches and geological mapping in relation to the Layden Showing (compiled from Ebert's (2007) data).

The NAMC-Altius J-V conducted two drill programs on the Property near the Layden Showing (Ebert 2008). Table 6-2 lists the UTM co-ordinates, azimuths, dips and, lengths of the drill holes. Figure 6-7 locates the drill holes on the Layden grids and AeroTEM II EM conductors. Both programs were hampered by snow cover. During the first one in December 2007, eight holes (numbered 07TB-01 to 07TB-08) were drilled with a cumulative length of 1205.47 m (Table 6-2). The holes were designed to intersect metabasite breccias north of the Layden Showing and ultimately enlarged the known size of the ultramafic unit to 200 x 100 x 50 m (Ebert, 2007). The best assay intercept from the eight holes was 0.13% Ni, 0.21% Cu and 0.03% Co over 1 m.

Between drill programs, Crone Pulse EM (PEM) downhole surveys were conducted in holes 07TB-04 and 07TB-07 during March 2008 (Ebert, 2008). The 07TB-04 survey detected a strong off-hole conductor at a depth of 140 m depth and a weak one at 80 m.

The second NAMC-Altius J-V drill program on the Property in May 2008 completed nine holes (labelled 08TB-09 to 08TB-17) with a cumulative length of 1430.8 m (Table 6-2). This drilling was designed to test each of the discrete EM conductors from the AeroTEM II survey, as well as the off-hole conductor defined in the Crone Pulse EM survey of borehole 07TB-04. Hole 08TB-16 was drilled through the northwestern EM conductor as defined in the AeroTEM II survey (Figure 6-6).

Table 6-3 lists the best mineralization intersections from the 2008 drilling.

According to Ebert (2008), the 2008 drilling intersected five distinct zones of mineralization including massive to semi-massive sulphide intervals. Hole 08TB-09 intersected three massive to semi-massive sulphide intervals, 0.3 to 0.95 m thick; 08TB-10 intersected four massive to semi-massive sulphide intervals, 0.02 to 0.1 m thick; 08TB-14 intersected two 0.2 m wide massive sulphide intervals;

Figure 6-6: Map of Layden Area Geology and 2007 Trenches (after Ebert, 2007).

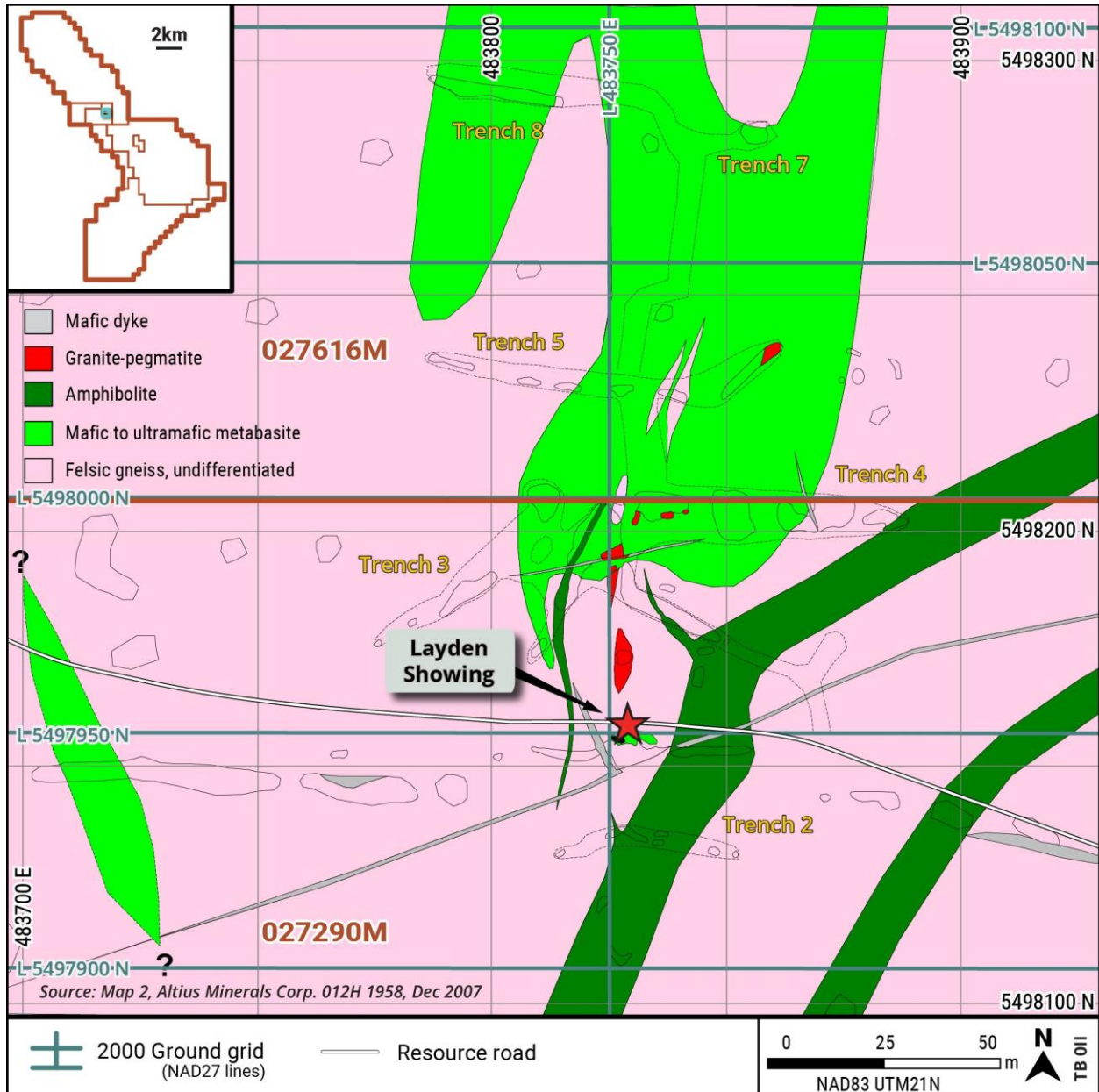


Table 6-2: Diamond drill location, azimuth, dip and length on the Taylor Brook Property (after Ebert, 2008)

Hole	Easting	Northing	Elev. (m)	Azimuth	Dip	Depth (m)
07TB-01	483767	5497956	240	275	-51	102.72
07TB-02	483767	5497956	240	265	-51	47.85
07TB-03	483781	5497957	240	335	-58	171.30
07TB-04	483781	5497957	240	335	-75	172.82
07TB-05	483781	5497957	240	310	-51	135.00
07TB-06	483803	5497975	235	335	-51	178.92
07TB-07	483803	5497975	235	335	-70	114.33
07TB-08	483803	5497975	235	305	-60	282.55
08TB-09	483754	5497769	273	50	-50	197
08TB-10	483754	5497769	273	50	-70	149
08TB-11	483716	5497874	260	50	-51	185
08TB-12	483807	5497847	265	240	-60	160
08TB-13	483783	5497957	240	0	-90	203.5
08TB-14	483753	5498102	213	40	-50	213.7
08TB-15	483552	5498132	219	70	-50	179
08TB-16	483093	5498243	261	235	-47	133
08TB-17	483759	5497956	239	0	-90	10.6
					Total	2636.29

TB08-16 intersected 1 to 5 cm thick massive sulphide zones within a 5.2 m wide interval; and TB08-17 intersected semi-massive sulphide intervals.

Holes 08TB-09 and -10 intersected “Layden-style” pyrrhotite-pyrite-pentlandite-chalcopyrite mineralization in metabasites. Holes TB08-14, 300 m north of the showing, and 08TB-16, 670 m west of the showing, also intersected “Layden-style” mineralization, albeit with lower Ni and Cu contents. Hole TB08-17, drilled through the showing, confirmed that the mineralization was present to at least shallow depths; the hole was only 10.6 m long (Ebert, 2008). Significant drill-hole intercepts in 2008 included: 1.71% Ni, 0.13% Cu and 0.028% Co over 4.15 m; 1.63% Ni, 0.36% Cu and 0.027% Co over 4.25 m; 1.35% Ni, 0.32% Cu and 0.023% Co over 1.35 m (Table 6-3).

Ebert (2008) concluded that “Layden-style” Ni-Fe-Cu mineralization had been intersected in an area covering 300 by 800 m. The interleaved host metabasite was generally thin (1 to 12 m wide) but the structural geometry was poorly understood. The metabasites were presumed to be remnant dykes. Associated sulphide mineralization zones seemed to be smaller than the “dykes” and < 4 m wide. Ebert (2008, p. 25) states that “the continuity and potential economic significance of these zones remains poorly understood. Holes 9 and 10 indicate continuity for at least 60 metres down dip, with the zone remaining open. The area has undergone strong deformation and existing Layden metabasite and sulfide zone have likely been significantly modified during regional metamorphism. Locally migmatitic segregations occur within the gneiss, indicating locally granulite grade metamorphism has affected the area.”

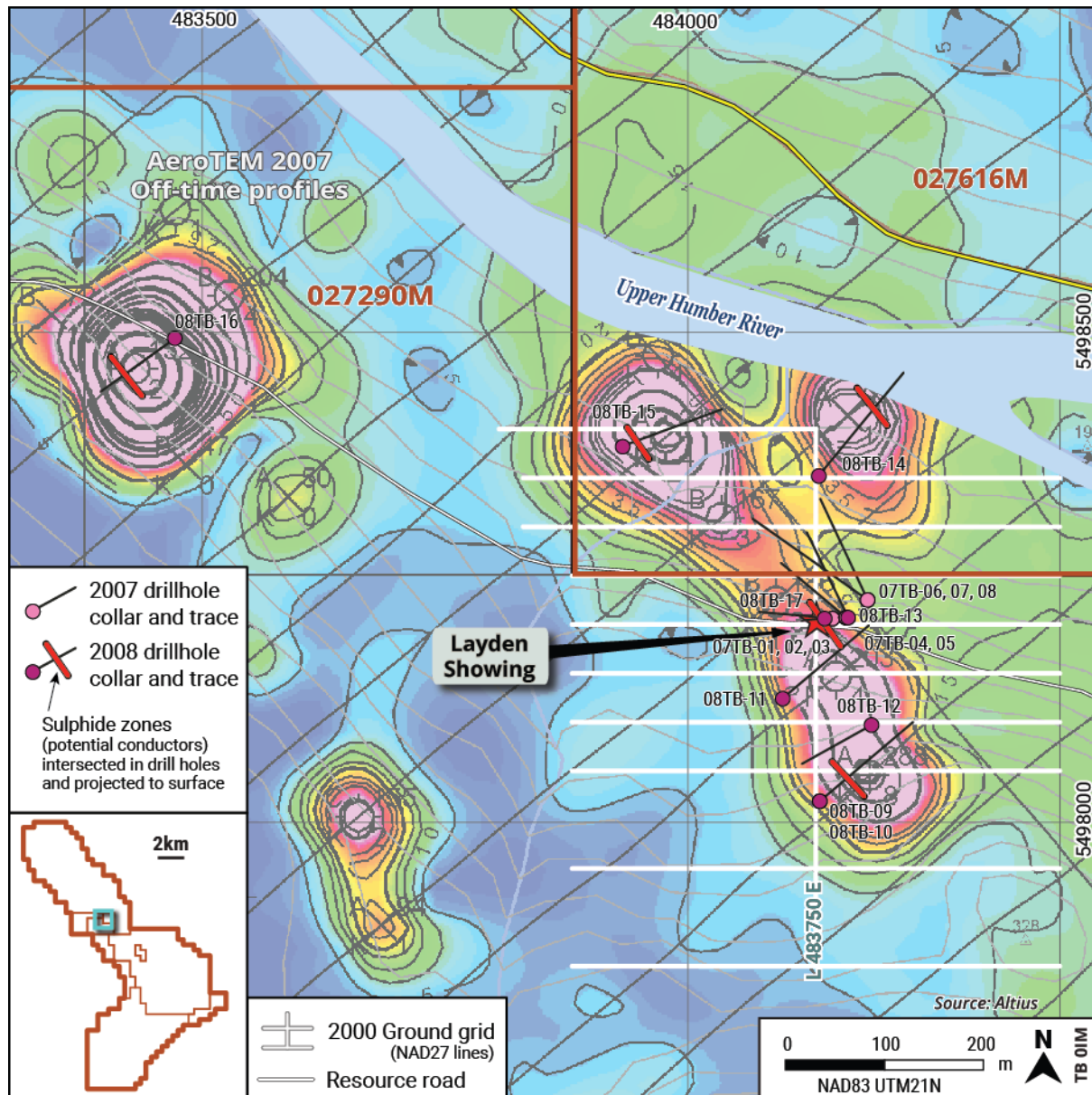
Table 6-3: Summary of best intersections from the 2008 drilling on the Taylor Brook Property (after Ebert, 2008)

Hole	from	To	Width (m)	Ni %	Cu%	Co%
08TB-09	42.0	46.15	4.15	1.71	0.13	0.028
including	42.6	42.9	0.3	4.7	0.17	0.071
including	43.4	44.35	0.95	4.5	0.16	0.073
08TB-10	95.95	97.4	1.45	1.35	0.32	0.023
08TB-14	132.75	133.75	1	0.34	0.14	0.048
and	137.3	138.3	1	0.09	0.15	0.022
08TB-16	86.6	90.8	4.2	0.03	0.25	0.008
including	89.3	90.3	1	0.06	0.54	0.01
08TB-17	0	4.25	4.25	1.63	0.36	0.027
including	0.2	0.45	0.25	4.0	1.86	0.051
including	4.0	4.25	0.25	6.1	0.17	0.111

Ebert (2008) also concluded that the airborne EM conductors proved great vectors for “Layden-style” mineralization as all four of the airborne conductors drilled contained “Layden-style” sulphides. Hence, airborne geophysical surveys might prove effective and efficient exploration tools on the Property.

Northern Abitibi Mining Corporation terminated the J-V agreement with Altius in early 2010.

Figure 6-7: Location of 2007-2008 Drillholes and AeroTEM II EM Conductors in the Layden Showing Area (after Ebert, 2008)



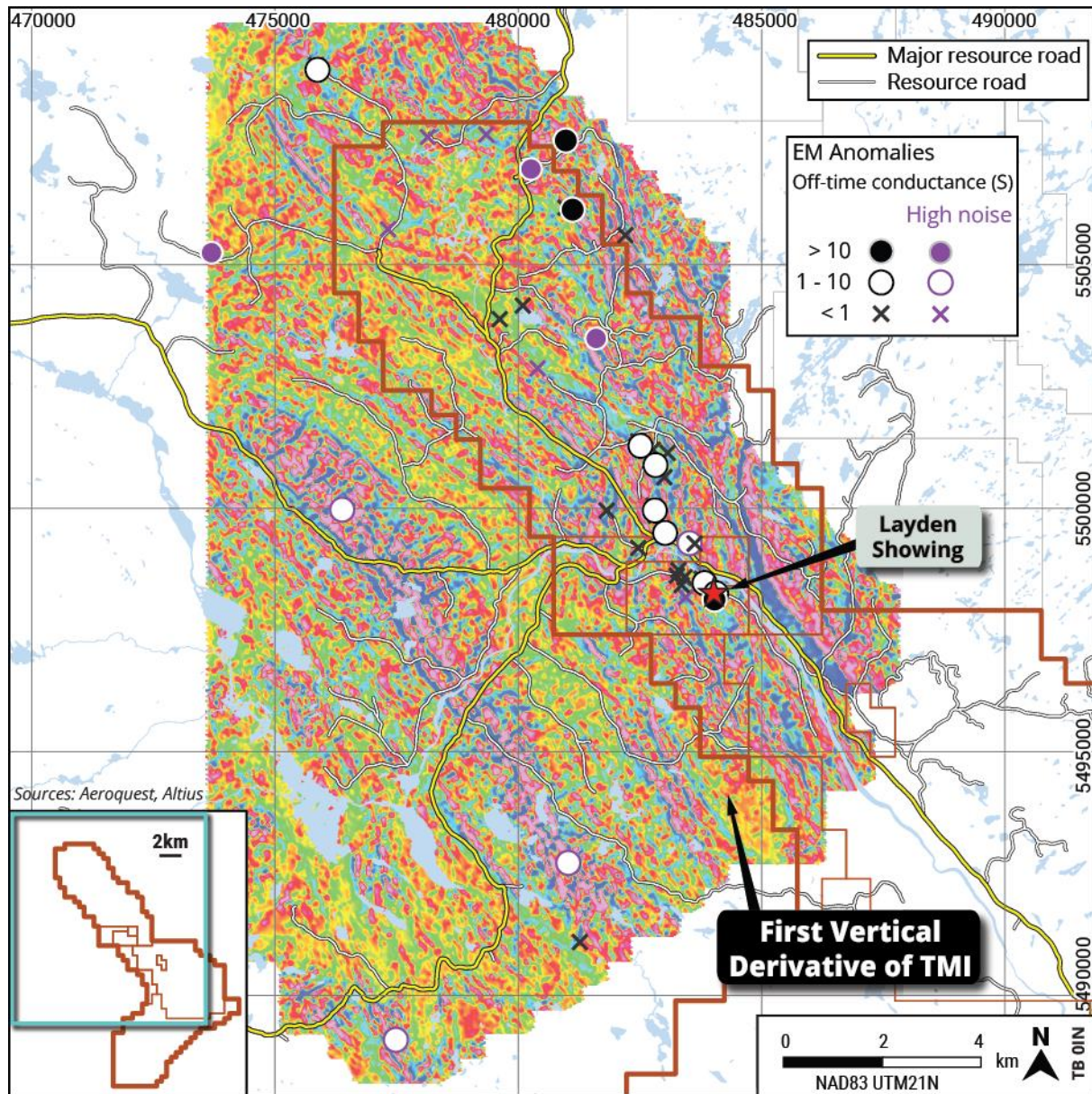
6.3.4 Altius Resources 2010-2012

In 2010, Altius retained Aeroquest Ltd. to conduct helicopter-borne AeroTEM System EM and MAG surveys over the Property (Churchill, 2011). The survey covered 227-line km along 100 m line spacings. It was flown at 60°/240° and 1000m tie-line spacings flown orthogonal to the flight lines for control. According to Churchill (2011), the EM/MAG responses for the Layden Showing in the 2010 survey differed from those in the 2006 survey, conceivably due to variations in flight line directions between the two surveys. In the 2010 survey, Aeroquest reported no significant bedrock anomalies and some weak anomalies which they deemed as products of man-made structures. Because of the close correspondence of sulphide drill intersections and “weak” EM anomalies mineralization, Altius disagreed with the supposition that the weak anomalies were simply man-made (Churchill, 2011). Figure 6-8 is a map of the 2010 AeroTEM survey of the Layden Showing area outlining EM anomalies in relation to the showing.

During 2011, Altius conducted a short exploration program on the Property, evaluating ten EM anomalies generated from the 2010 AeroTEM survey (O'Reilly et al., 2012). The assessment work included prospecting, and the collection of 32 rock and 174 soil samples. The soil samples were collected from grids overlying two of the anomalies. According to O'Reilly et al. (2012) anomalous nickel, copper, and cobalt contents were detected in the soil and rock samples and new outcrops of sulphide-bearing gneiss were mapped similar to those at the Layden Showing. O'Reilly et al. (2012) suggested that the mineralized outcrops be further investigated.

Altius conducted a follow-up exploration program in 2012 during which four trenches were dug, geologically mapped, and rocks sampled (O'Reilly et al., 2013). The trenches were excavated over areas with anomalous Ni-Cu-Co results from 2011 soil or the 2010 EM anomalies. Metabasite material similar to that at the Layden Showing was not encountered in the trenches. Some rock samples contained weakly anomalous nickel and copper contents.

Figure 6-8: Map of 2010 AeroTEM II Survey and EM Conductors (compiled from Aeroquest data).



6.3.5 Altius Resources 2019-2020

As part of its assessment work on the Property in 2020 (Churchill, 2020), Altius commissioned a detailed review by Geoscience North (A. King, P.Geo.) of all geophysical data derived from Altius and Altius J-V sponsored exploration programs and government surveys. The main conclusions from Geoscience North report were:

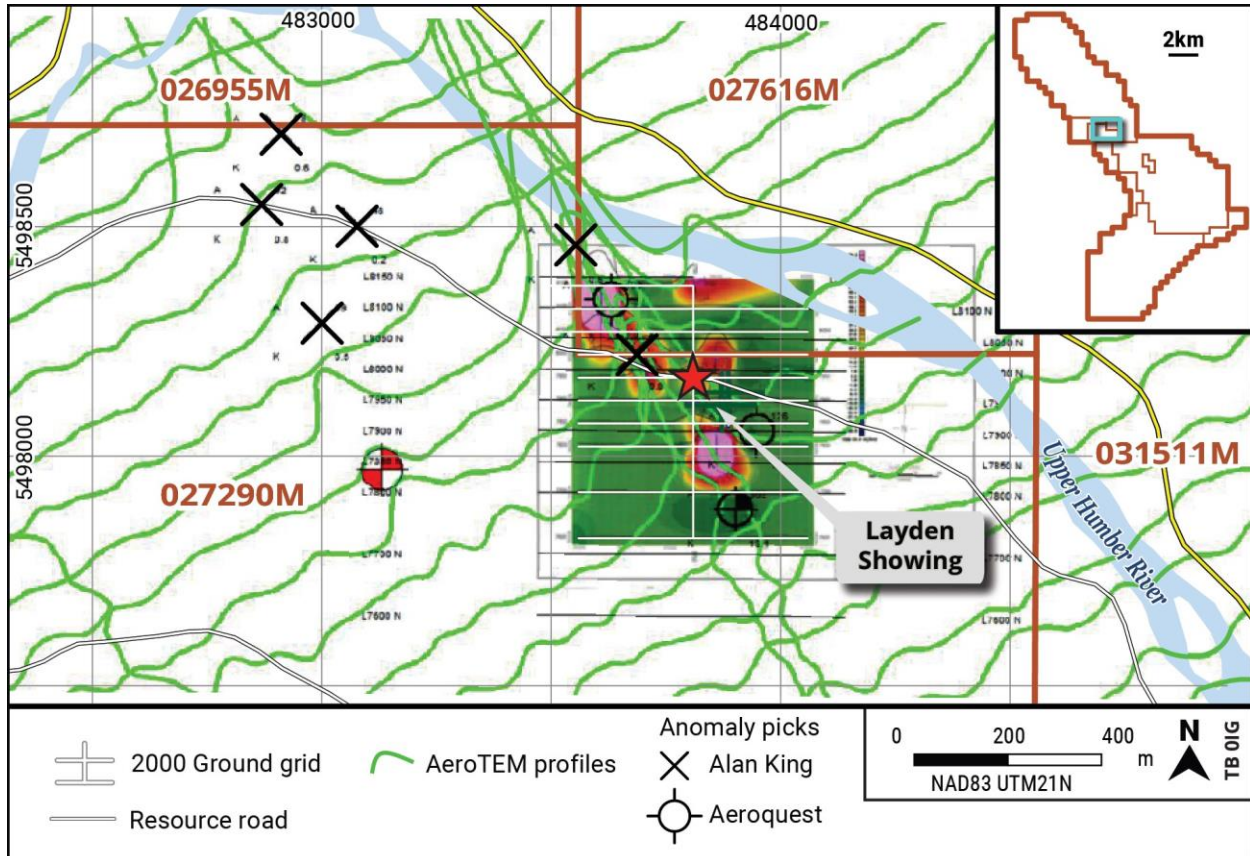
- Re-interpretation of the AeroTEM II data identified anomalies not identified by Aeroquest. Many were deemed to be rather weak compared to those that would be expected from massive Ni-Cu-PGE sulphides, but the EM anomalies might also be reflective of deeper conductors.
- The AeroTEM II surveys may have been too shallow, but they did define a cluster of EM anomalies extending north from the Layden Showing that correlate with first magnetic vertical derivative data. This suggests that though mineralization was possibly stratiform, it was deformed and folded.
- AEM, ground VLF-MAG and Moving Loop EM (MLEM) surveys suggest that there are moderate quality conductors in the immediate area of the Layden Showing that were not drill tested. AEM anomalies outside the immediate area of the showing, likewise, weren't drilled. Figure 6-9 displays the correlated airborne and ground EM anomalies along with Aeroquest and Geoscience North "picks".
- The MLEM survey best defined the mineralization at Layden Showing. .
- Only two of the 17 holes drilled at the Layden Showing were surveyed with downhole Pulse EM (BHEM). Data from one of the two holes (DH 07-04) defined a small, but good quality off-hole conductor.
- EM surveys suggest "a broad area of higher conductivity with locally more conductive zones that fits the known mineralization in this area."
- Regional gravity surveys hint that the Precambrian Layden Showing is underlain by the Silurian Taylor Brook Gabbro Suite ("TBGS") suggesting a possible connection between the two.

In the 2020 work Altius (Churchill, 2020) digitized all drill hole data from the 2007-2008 drill program by the Altius-Northern Abitibi Mining Corp. and modelled them with Leapfrog software. A Sulphide-Bearing Intrusive Phase ("SBIP"), seemingly the "main mineralizing event", was defined by the modelling. Churchill (2020) concluded:

- That all holes should be re-logged to ascertain if the SBIP might have been overlooked in barren holes.
- Holes not surveyed by BHEM, should be.
- Surveys using higher powered AEM systems should be conducted.

- Geoscience North identified EM targets, the off-hole conductor in hole TB07-04, and a broad AEM anomaly in the SW corner of the survey area, that should be further investigated and possibly drilled.

Figure 6-9: Map of Geoscience North Compiled Airborne EM Anomalies in the Layden Showing Area (from Churchill, 2020)



7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Geological Setting

The island of Newfoundland defines a cross-section through the northern part of the Appalachian Orogenic Belt (Figure 7-1). Geologically the island can be subdivided into four Tectonostratigraphic Zones (the Humber, Dunnage, Gander, and Avalon zones) that record the opening, closing, and ultimate destruction of the Iapetus Ocean through the early- to mid-Paleozoic (Williams, 1978a, 1978b; Williams et al., 1988). The Humber Zone represents the ancient eastern continental margin of ancient North America, termed Laurentia. It consists of two main elements: a Mesoproterozoic to Neoproterozoic crystalline basement, and Cambro-Ordovician cover sequences. The Precambrian basement, as exposed in the Long-Range Inlier of the Great Northern Peninsula, is part of the Grenville Province of the Canadian Shield. The Avalon Zone represents the western margin of Gondwana, and consists of late Precambrian plutonic, volcanic, and sedimentary rocks overlain by Cambro-Ordovician platformal sedimentary units. Rocks of the Gander Zone record the development and destruction of a continental margin east of the Iapetus Ocean (McKerrow and Cocks, 1977), and the Dunnage Zone contains oceanic crust, vestiges of the Iapetus Ocean, and accreted island-arc systems and mélanges.

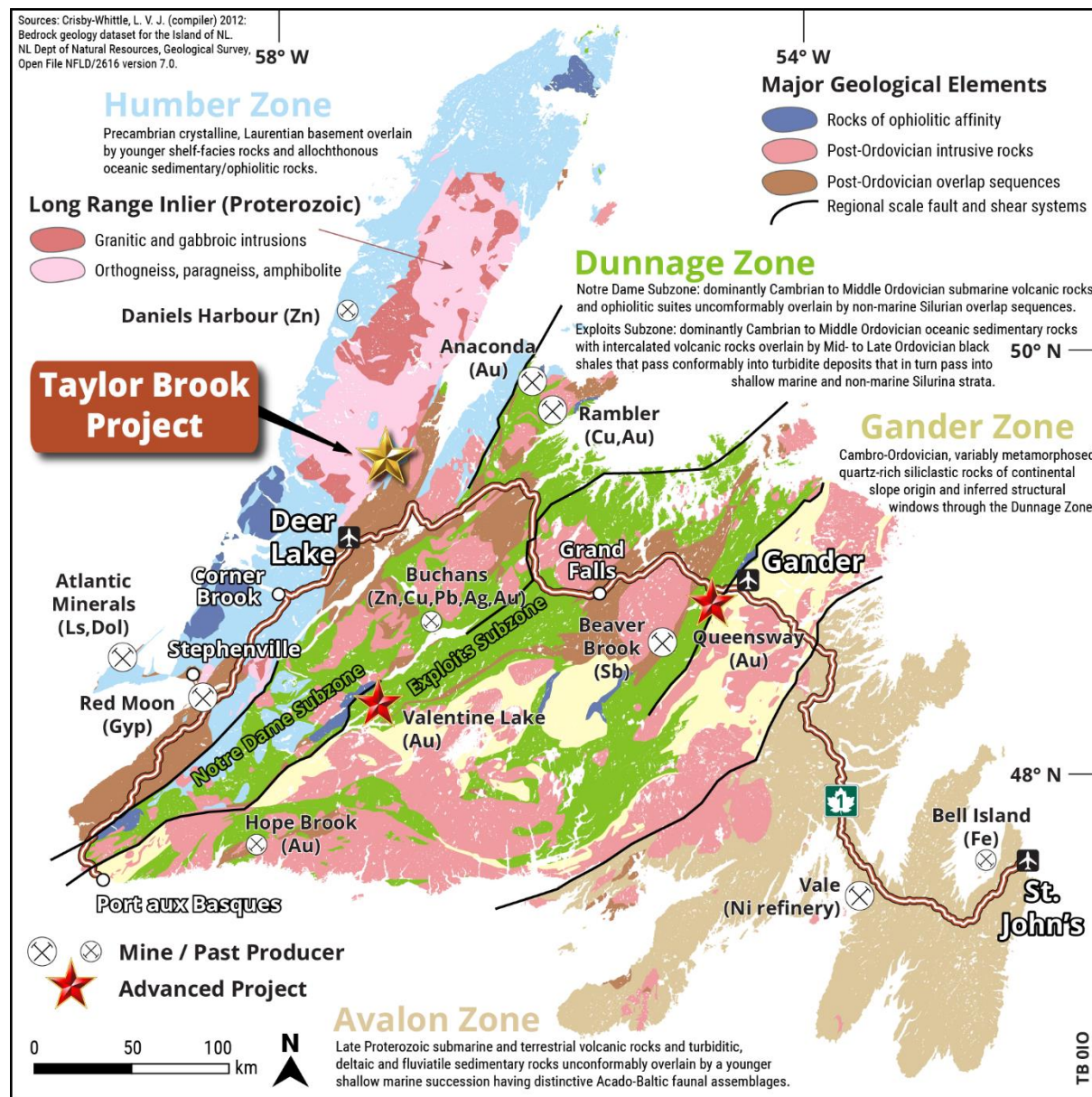
The Taylor Brook Project is situated within the southeastern corner of the Long-Range Inlier (LRI). The Long-Range Inlier constitutes the largest and northernmost exposure of basement rocks in the Appalachian Orogen, covering an area of ca. 8500 km² in the Humber Zone of the Great Northern Peninsula. It is a massif of Neo-Proterozoic crystalline rocks (Owen, 1991). Mafic dykes and associated local flood basalts, dated at 615 to 600 Ma, crop out in the northwestern portions of the LRI (Williams et al., 1985). More widespread, unconformable cover sequences of Late Proterozoic-Cambrian clastic rocks are overlain by Middle Cambrian to Early Ordovician carbonate platform sequences (Williams and Stevens, 1974). On the eastern side, near the Property, cover material has been metamorphosed and locally intruded by Silurian rocks.

The Inlier predominantly (60%) consists of Meso to Neo-Proterozoic gneiss intruded by felsic and mafic plutonic rocks. Most gneiss is quartzo-feldspathic including quartz dioritic, tonalitic, granodioritic, and granitic varieties. The abundance of quartz and feldspar suggest that the protolith to the quartzo-feldspathic gneiss was granitoid (Owen, 1991).

Paragneissic rocks are also present in the LRI as pelitic gneiss, quartzite, schist and phyllites, and metacarbonate. These paragneisses are exposed as narrow screens within the quartzofeldspathic gneiss. Metamorphic grade in the gneiss ranges from amphibolite facies in the north part of the inlier to granulite facies in the south.

The LRI contains discontinuous bands of granoblastic mafic gneiss, in part identified as amphibolite by Owen (1991), within the quartzofeldspathic gneiss. Owen (op cit.) suggests that these represent metamorphosed and deformed mafic dykes. In the area of the Property he also noted the presence of “migmatitic” varieties.

Figure 7-1: Tectonostratigraphic map of Newfoundland Appalachians and Location of Taylor Brook Property



The LRI basement metamorphic rocks are intruded by numerous charnockite-granite to granite bodies (35% of LRI). The 175 km² layered Taylor Brook Gabbro Complex intrudes the southeast portion of the Long-Range Inlier, 1.5 km east of the Property.

Heaman et al.'s (2002) U–Pb geochronological data for the basement metamorphic rocks and granitoids in the LRI suggest a long period of crustal residence and evolution within the inlier ranging from 1530 and 985 Ma (i.e., over 545 Ma). Most of the basement gneiss has been dated at 1510–1450 Ma, equivalent to the Pinwarian of the Grenville Province. But even older Labradorian gneiss (ca. 1630 Ma) may be present in the LRI. According to Heaman et al. (2002), granites intruded the LRI basement in two distinct episodes; 1032–

1022 Ma, and 993–985 Ma. A Silurian U–Pb age of 430.5 ± 2.5 Ma was obtained for the Taylor Brook Gabbro Suite and as such represents the first documentation of Silurian magmatism in the inlier (Heaman et al., 2002).

7.2 Local Geology

Figure 7-2a is the geology map of the Property based on the work of Owen (1991). The Layden Showing occurs within what Owen (1991) termed granitic-granodioritic gneiss (unit Pgn). According to Owen, in terms of size, this is the most important unit in the LRI gneiss complex. He noted that migmatite is common, and near the Property according to his map, the unit grades into banded gneiss.

Based on Owen's (1991) mapping, the northern and western portions of the overall Taylor Brook Project licenses are predominantly underlain by units Pgn and Pqdn (hornblende-biotite dioritic gneiss); the Pgn unit is a northwest-southeast continuation of the same unit as at the Laydon Showing and is mapped as being intruded by the Taylor Brook Gabbro Complex (TBGC) in License 032488M. Immediately to the west of this contact area Owen has mapped a biotite-hornblende granite unit Pg, in license 032798M.

Pqdn is “flecky” textured, hornblende and/or biotite-bearing, quartz dioritic to granodioritic gneiss; the “flecks being” hornblende and/or biotite (Owen, 1991). The gneiss is typically migmatitic with quartz and/or feldspar paleosomes up to 10 cm thick and is also polydeformed. Hinchey (2020) described this unit as strongly foliated, and locally gneissic, biotite-hornblende±orthopyroxene granodiorite to diorite (orthogneiss) (unit Pggg). She also noted a speckled nature to the orthogneiss due to 1-2 cm wide mafic clots of hornblende-biotite±magnetite.

In the middle of Licence 031511M, both Owen (1991) and Hinchey (2020) mapped a lens of paragneiss (unit Ppn) which Owen simply defined as pelitic gneiss. According to Hinchey (2020), this is a unit of garnet-biotite±sillimanite±muscovite semipelitic to pelitic gneiss interlayered with psammitic gneiss (her unit P₃₋₄pgn). The paragneiss contains 3-5 cm thick compositional layers. Hinchey also mapped a ≤250 m wide sliver of foliated, medium-grained amphibolite (unit Pam) on the east side of pelitic gneiss lens. The amphibolite contains plagioclase-rich and metadioritic layers parallel to the foliation. This amphibolite is not on Owen's (1990) map.

The Silurian Taylor Brook Gabbro Complex (Pgb) intrudes the LRI gneisses on the lower southeast side of Licence 031511M, and covers a large portion of License 032488M. Owen (1991) describes the complex as consisting of layered, medium-grained, mesocratic gabbro, commonly with subophitic textures. The cm to m scale igneous layering dips moderately to steeply, demarked by silicate mineral phase and/or grain-size variations.

Owen (1991) noted that the Pgb complex overlies the edge of an elongate gravity high (35 mgals) mainly located within the LRI gneiss (See Figure 8-2). He concluded that the anomaly suggests that the gabbro might extend beneath the gneiss complex at depth, and

Figure 7-2a: Taylor Brook Property Geology Map

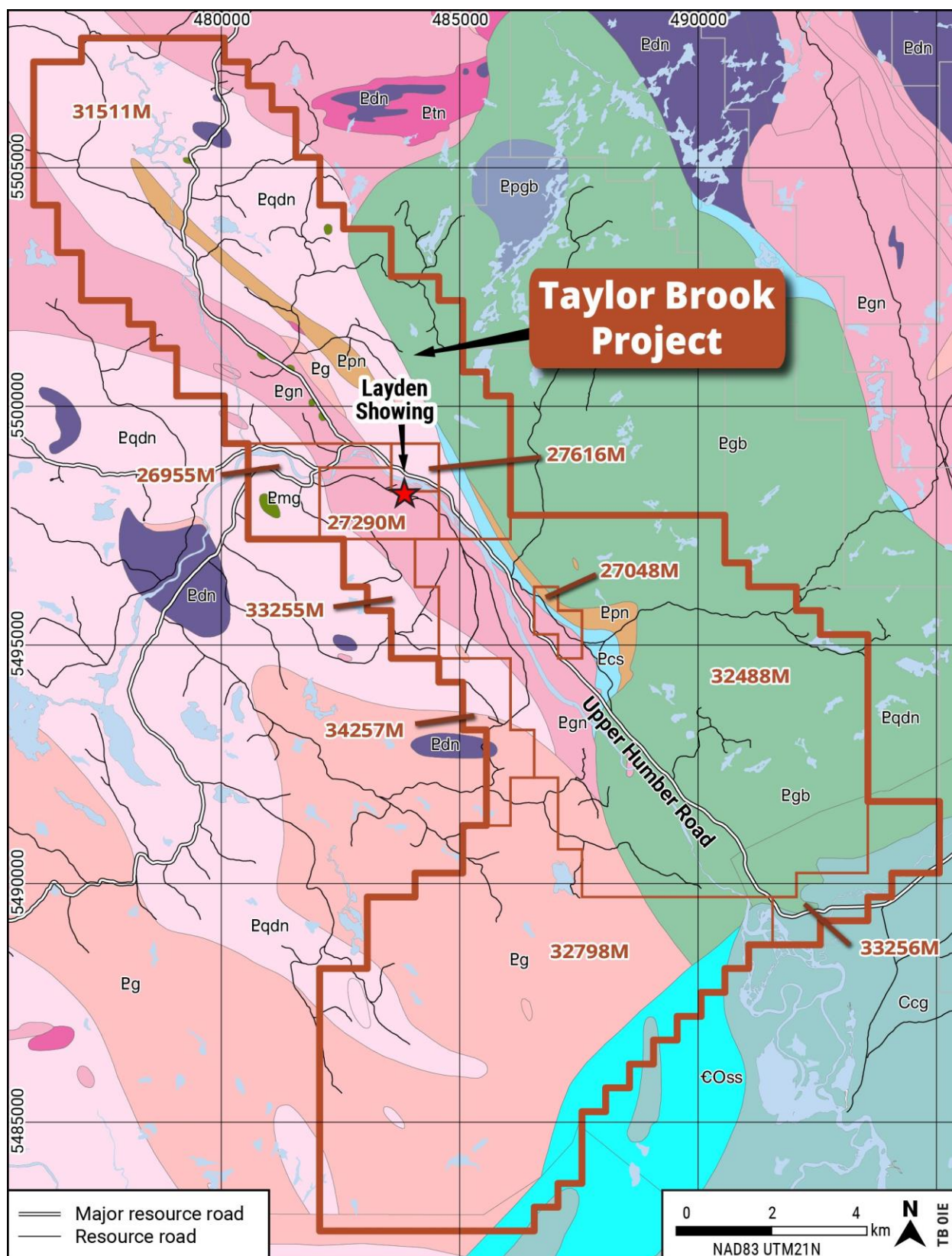


Figure 7-2b: Legend for Taylor Brook Property Geology Map

Silurian		Long Range Inlier - Grenvillian	
Taylor Brook Gabbro Complex			
	Olivine gabbro		Biotite ± hornblende granite
	Pegmatic gabbro		Biotite ± hornblende granite
Grenville-Cambrian (?)		Long Range Gneiss Complex	
Paragneiss			Quartz dioritic to granodioritic hornblende-biotite gneiss
	Marble, calc-silicate rock		Granitic to granodioritic biotite gneiss
	Pelitic gneiss, locally with quartzite or mafic gneiss		Orthopyroxene-bearing tonalitic gneiss
Paleozoic			Amphibolite, dioritic gneiss, mesocratic to mafic gneiss
	Carboniferous conglomerate	Source: NL GeoScience Online Detailed Bedrock; Owen, 1986	
	Cambro-Ordovician schist		

TB 01F

therefore would underlie the Layden Showing.

Along the boundary between the Taylor Brook Gabbro and LRI gneiss on Licence 031511M and 032488M is a thin belt of marble (Pcs) and pelitic gneiss (Ppn). Owen (1991) describes the marble (unit Pcs) as a calcsilicate marble with wollastonite, salite, scapolite and bytownite. Hinchey (2020) describes the pelitic gneiss to be a quartzite (her unit Pqte) containing garnets and sillimanite needles. Hinchey also describes the contact between the Pgb gabbro and LRI as a westward-directed thrust fault.

Outside of the Property, Owen (1991) described enclaves of massive to banded mafic gneiss (Pdn). He also termed this unit, amphibolite. The mafic gneiss occurs throughout the LRI as discrete, cm to m-wide bands. The unit consists primarily of plagioclase and amphibole and represents metamorphosed/deformed mafic dykes. Two km west of the Layden Showing, Owen mapped an enclave of this massive to banded mafic gneiss (unit uPmg) which he described as the largest exposure of this unit in the LRI. The amphibolite/mafic gneiss within the enclave contained drusy quartz vugs with chalcopryrite.

The LRI gneisses that underlie the property can be quite complex and slightly different varieties can be distinguished. For instance, on Licence 031511M, Hinchey (2020) described interleaved units of a) medium-grained biotite±hornblende±orthopyroxene monzogranitic to granodioritic gneiss (unit Pdrgn) with 10% quartz-granite veins up to 2-5 cm thick, b) hornblende metagabbro (nP), and c) orthopyroxene-biotite meta-tonalite to meta-granodiorite (mPtgn) which is strongly foliated and contains amphibolite boudins and layers of mafic minerals.

Younger Cambro-Ordovician (COss) schist and Carboniferous (Ccg) conglomerate crop out at the southeastern edge of the map and are interpreted as being part of the Deer Lake basin stratigraphy within the Doucer Valley Rift System. The basin is interpreted to be 2-5km deep based on seismic data (Hinchey et al., 2022).

7.3 Sulphide Mineralization

Fitzpatrick and Churchill (2000) describe the Layden Showing as consisting of coarse disseminations and stringers of pyrrhotite, chalcopyrite and pentlandite, amounting for up to 50% to 100% the rock, within a strongly biotitic amphibolite host (“metabasite”). The pentlandite is present as both discrete grains and as flame exsolution lamellae within pyrrhotite. The sulphide zone appeared to be at least 30 cm wide. They noted that the mineralization and host biotite-amphibolite (now known as gabbro-norite) were interleaved with quartzofeldspathic gneiss and that the gneiss is tightly folded with mineral lineations and fold axes plunging moderately to the southeast. They reported that 11 grab samples from the showing returned an average of 5.38% Ni, 1.05% Cu, 0.1 % Co, 112 ppb Pt, 232 ppb Pd and 416 ppb Au.

Fitzpatrick et al. (2000) reported that in one trench the metabasite contained patches of pyroxene, hornblende, biotite + sulphides and that the sulphides were dominantly pyrrhotite with lesser chalcopyrite, pyrite and pentlandite. The sulphides could account for 20-30% of the rock over 1 m and one grab sample of 14 taken assayed a maximum value of 0.15% Ni and 0.13% Cu. Petrographic work suggested that the sulphides were intercumulus to the host silicate minerals. As such, Fitzpatrick et al. (2000) thought that these patches represented migmatitic segregations within the metabasite. In another exposure, they noted a breccia with blocks of metabasite (up to 0.5 m across) in a matrix of pyroxene-hornblende-biotite matrix. The matrix also contained pods of sulphide up to 10 cm across, grab samples of which assayed low grade values of 0.14% Ni and 0.23% Cu (Ebert, 2007).

Ebert (2007) described the Layden Showing as a high-grade massive sulphide lens exposed in a small metabasite band about 2.3x9m. The lens was characterized as being strongly deformed and altered forming a “rod-shaped” body that dips SE; presumably Ebert meant that the rodding plunged to the SE. Ebert (2007) uncovered another 125x90 m metabasite 40 m north of the Layden Showing (Trenches 3 and 4) which contained a 15x50 m-sized zone of disseminated to semi-massive sulphide. The sulphide was described as mainly pyrite with minor pyrrhotite and trace chalcopyrite and altogether the sulphides accounted for 2-20% of the metabasite. Single assays of the sulphide-rich material produced maximum concentrations of 0.15% Ni and 0.47% Cu.

Diamond drilling in 2007 and 2008 expanded the size of the metabasite to 220x100x50 m, but Ebert (2008) noted that the lateral extent of the unit remained open and smaller zones are spread over an area 400x800 m. Ebert (2008) subdivided the metabasite into “salt and pepper” metabasite, dioritic metabasite, and the sulphide-bearing intrusive phase (SBI). The SBI was mapped as the matrix to magmatic breccia of the metabasite. The SBI contains 2-10% sulphide (pyrrhotite-pyrite-chalcopyrite) and the maximum Ni and Cu assays from a single grab sample out of 60 taken was 0.23% Ni and 0.29% Cu. Ebert (2008) termed the sulphide mineralization at the Layden Showing, “Layden-style” mineralization.

Churchill's geological, petrographical, lithogeochemical and age-dating work in 2021-22 established that previous workers' amphibolites, metabasites, and Sulphide-Bearing Intrusive Phase ("SBIP") in the area of the Layden Showing are all part of the Layden Gabbronorite intrusive and Layden Breccia pulses. The gabbronorite is a ~200m x 400m x 300m thick, Silurian-aged gabbronorite/gabbro plug, deformed by isoclinal eastward dipping folding, and later mineralized pulses of sulphide-bearing noritic magma that formed extensive sulphide breccias (termed herein Layden Breccia Pulses) above more massive/net-textured mineralization seen on surface at the Layden Showing. These interpretations and data are discussed in Section 9.0 10.0 and 18.0.

8.0 DEPOSIT TYPES

Based on historical exploration work, the primary target for the Taylor Brook Property is a magmatic sulphide system with associated nickel, copper, and platinum group elements (PGE), typical of mafic to ultramafic-hosted deposits. These deposits are found in several locations across Canada, most significantly in the Voisey's Bay area of Labrador, the Raglan belt of northern Quebec, and the Thompson belt in northern Manitoba. Most fundamentally, nickel, copper, and PGE deposits are associated with igneous rocks that form from the partial melting of mantle material (Lightfoot and Evans-Lamswood, 2015).

These types of magmatic deposits can be subdivided into distinct types based on the lithology and nature of associated mafic-ultramafic magmas, depth of emplacement, abundance of sulphide minerals, relative proportion of metals, and position of the ores within the intrusion (Zientek et al, 2017). The Taylor Brook, Layden-style mineralization best fits conduit-type deposits that are associated with sill complexes and dyke swarms, as opposed to reef-type deposits in layered intrusions (cf. Zientek et al, 2017).

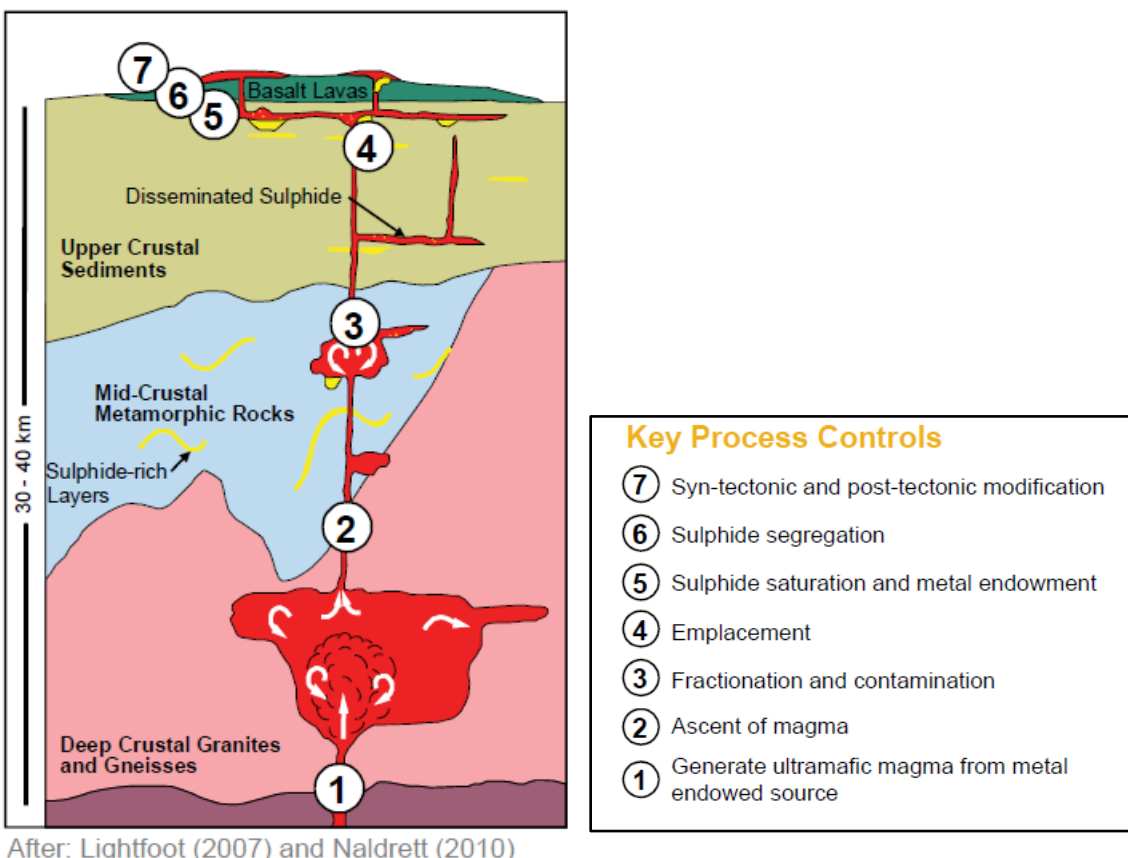
There are two main types of magmatic sulphide deposits: nickel-copper (+PGE) deposits, and PGE deposits. In Ni–Cu sulphide deposits, Ni and Cu are the main economic metals with Ni constituting 1–3% and Ni/Cu ratios of 0.3 to 13 (generally > 1). PGE are common by-product metals. The Ni–Cu deposit type can be subdivided into four subtypes (a) meteorite-impact sites (e.g., Sudbury), (b) komatiitic sills and/or flows (e.g., Raglan), (c) Continental flood basalt sills (e.g., Noril'sk) - hosted, and (d) mafic/ultramafic intrusions (Voisey's Bay) (cf. Naldrett, 2004). Taylor Brook would fit in classification (d), deposits associated with mafic/ultramafic intrusions.

Within a mafic to ultramafic intrusion or flow, sulphide droplets form, typically through contamination of the magma with sulphur and/or silica from adjacent rock units; such as the LRI gneisses. These sulphide droplets convect through the magma scavenging nickel, copper, and platinum group elements from the magma as these elements are preferentially fractionated into sulphide liquids 10 to 100,000x more than into silicate liquids. As sulphide droplets accumulate metals they can coalesce and later accumulate in structural traps in the magmatic chamber, dykes/conduits from the magma chamber, or in country rock.

Lightfoot and Evans-Lamswood (2015) suggest that in many cases magmatic Ni–Cu–PGE sulphide ore bodies are not just the products of simple in-situ gravity settling of metal-laden sulphide droplets within a magma chamber. At Voisey's Bay, for instance, sulphide-laden magma ascended through a sub-vertical conduit system, controlled by structural processes related to dilations and traps created by trans-extension in strike-slip fault (Evans-Lamswood et al, 2000). Essentially Ni–Cu–(PGE) sulfide deposits are commonly associated with small, differentiated intrusions residing within local transtensional spaces in strike-slip fault zones (Lightfoot and Evans-Lamswood, 2015). The transportation of dense sulfide liquid is pumped through a system undergoing transtension and transpression (op cit.).

Figure 8-1: Process Controls on the Formation of Orthomagmatic Nickel Sulphide Deposits (after Lightfoot and Evans-Lamswood, 2015)

Crustal Architecture



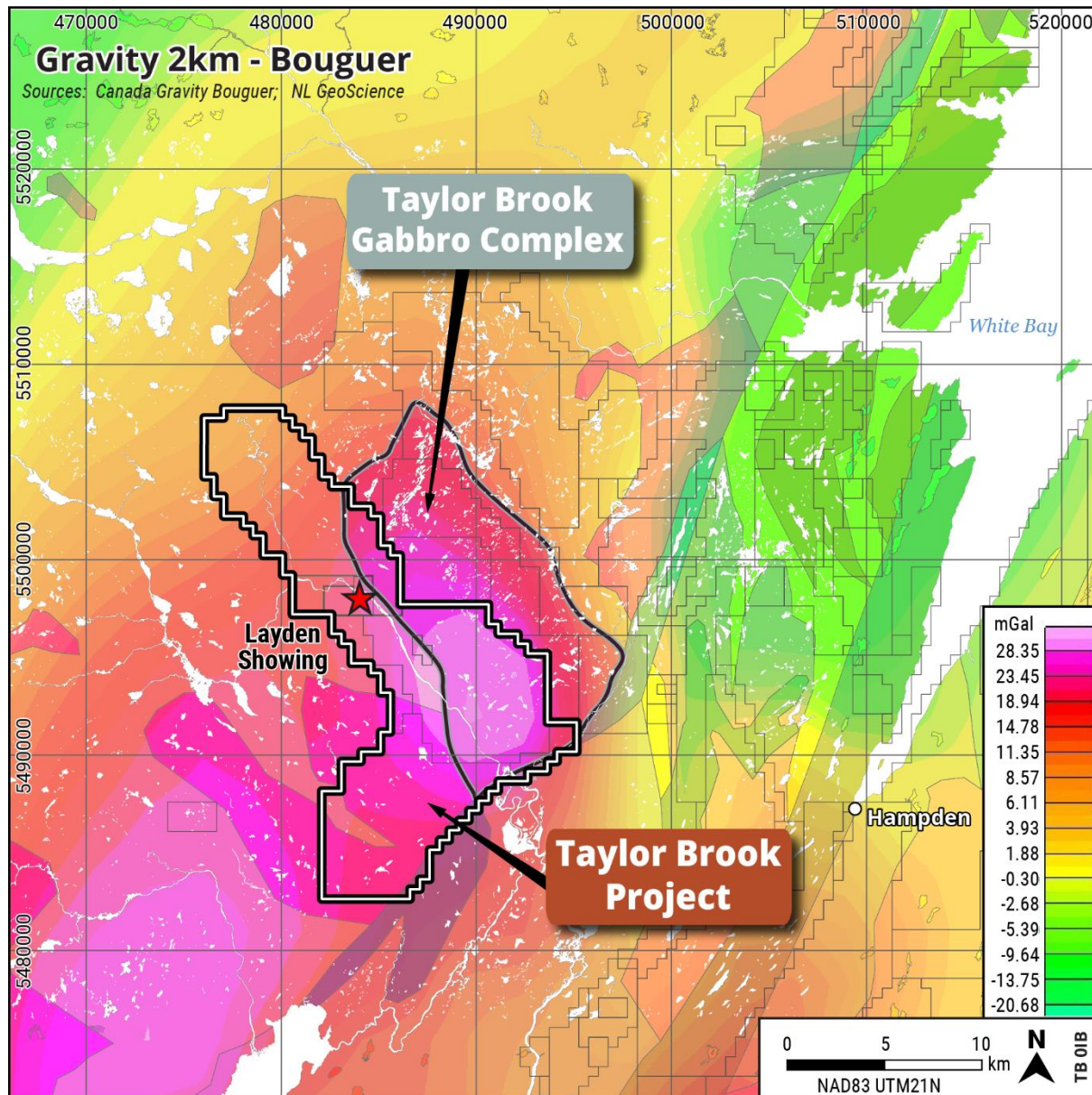
After: Lightfoot (2007) and Naldrett (2010)

Lightfoot and Evans-Lamswood, (2015) suggest that economic magmatic nickel sulfide deposits tend to have high Ni tenors and are related to the late magma injections from the parental magma chamber. They also note that the final sulphide injection can range from sulfide- and fragment-laden magmas to sulphide magmas.

Figure 8-1, from a PowerPoint by Lightfoot and Evans-Lamswood defines the process controls on the formation on the Ni-Cu-(PGE) mineralization. The Layden Showing would fit in the emplacement (4) and stratigraphic higher levels. According to Lightfoot and Evans-Lamswood (2015) a number of Ni sulphide ore bodies can form in small intrusions with rhomboid-shaped outcrop patterns and funnel-shaped cross sections and the Ni-Cu-PGE sulfide mineralization typically can exhibit an elevated Ni tenor with a range in Ni/Cu ratios and PGE concentrations.

Owen (1991) noted that there were two significant regional Bouguer gravity anomalies of up to > +30 mgal underlying the LRI in the region of the Layden Showing (Figure 8-2). One is directly underlying the southern lobe of the Taylor Brook Gabbro Complex and extends northwesterly to the Layden Showing area, and the second is 20 km to the southwest. Based on Lightfoot and Evans-Lamswood's (2015) model, these anomalies could be the result of deeper magma chambers feeding the Layden gabbro-norite and mineralized breccia pulses.

Figure 8-2: Regional Bouguer Anomaly Gravity Map for Taylor Brook Property Area



9.0 EXPLORATION

Churchill has carried out exploration at Taylor Brook through 2021 and 2022 that began with a helicopter-borne magnetic and time domain electromagnetic (“VTEM”) survey carried out by Geotech Limited in February and March of 2021. Fieldwork commenced in September of 2021 through to early December and included core drilling, ground magnetic and BHEM surveys, and prospecting/geochemical sampling. Activities recommenced in late April 2022 and ran through to mid-November. This work included more drilling, BHEM, surface TDEM surveys, soil sampling and further prospecting/geochemical sampling. Fieldwork is described in the following sections, and drilling operations in Section 10.0.

9.1 2021 VTEM and LIDAR Surveys

In December 2020, Churchill Diamond Corporation (now a subsidiary of Churchill Resources Inc.) executed an option agreement with Altius and commissioned a NI43-101 report by Dr. Derek Wilton, P.Geo., FGC and Jeremy Brett P.Geo. (Wilton and Brett, 2021). A key recommendation of that report was that a more powerful time-domain electromagnetic survey should be flown over the claims, and Churchill engaged Geotech Ltd. to carry out the survey using their helicopter-borne VTEM PlusTM system. The VTEM survey took place during late February and March 2021, with the final data and report received in July, and final conductor plate models were received in September.

Churchill also commissioned Geotech Ltd. to carry out VTEM PlusTM surveying over the Taylor Brook South property after it had been map-staked by the Company, which took place during August 2021 with final data delivered in December 2021. The survey was flown to the same specifications as the Taylor Brook work, with an area of overlap allowing for seamless integration of the two datasets. The combined VTEM dataset is shown in Figure 9-1 and is used for all VTEM-related drawings and figures in this report.

During August 2021, Churchill commissioned Leading Edge Geomatics to carry out a fixed-wing LiDAR survey over the claims to obtain the most accurate digital terrain data possible.

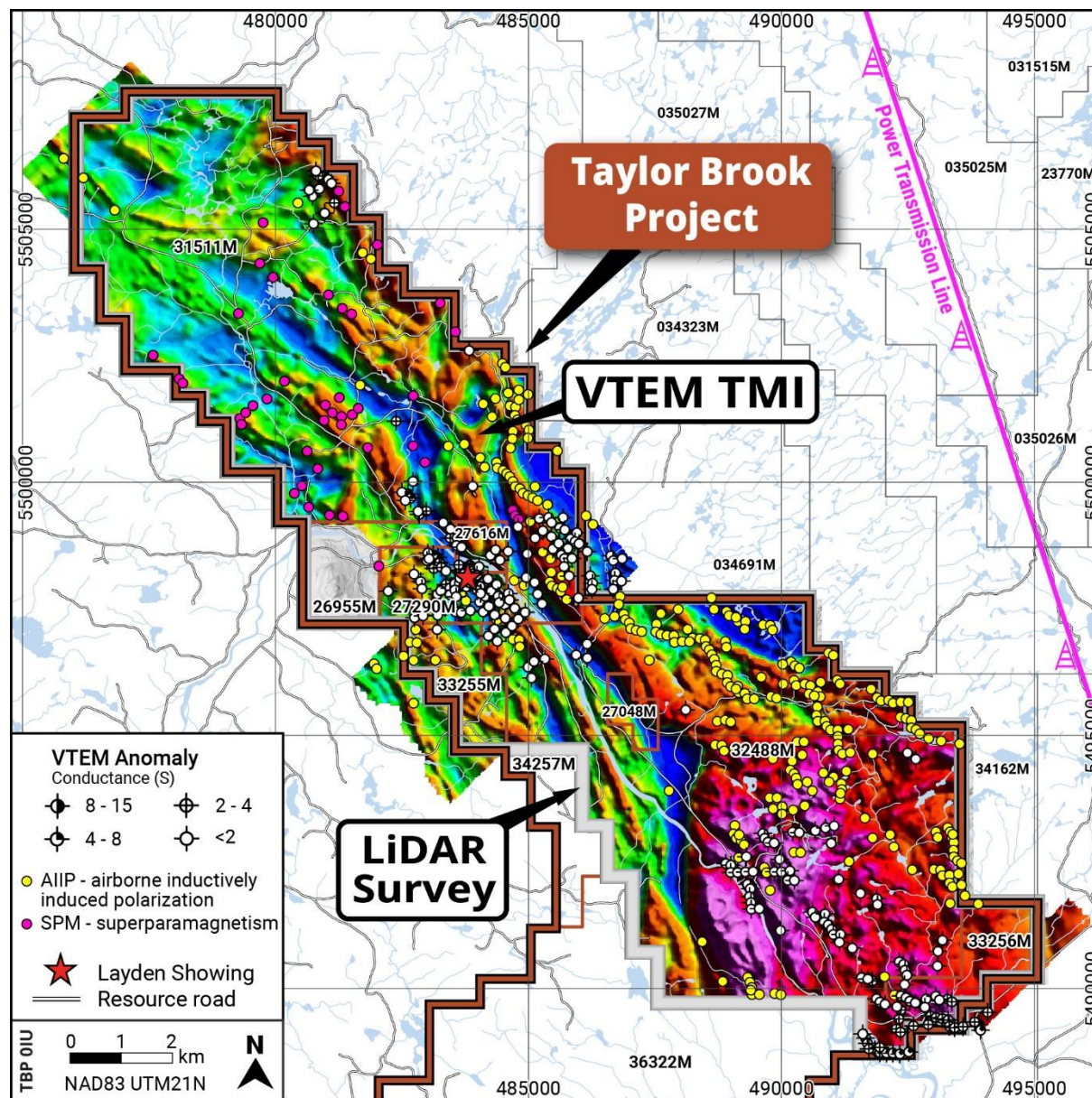
Both VTEM surveys and the LiDAR survey covered the Churchill licenses, as well small adjacent licenses 026955M (Hicks) and 027616M (Russell) at Taylor Brook, and 027048M (Noel) on the Taylor Brook South Property, with the owners’ permission.

The Lidar data are used as the topographic surface for subsequent figures in this report.

The Geotech VTEM survey was flown using NE-SW oriented flight lines, and a line spacing of 100m with a nominal terrain clearance of 51m (EM bird) and 61m (magnetic sensors). The state-of-the-art VTEM Plus system was utilized, which allows for the detection of discrete electromagnetic conductors, including massive to semi-massive and net textured Ni-Cu sulfides. This VTEM Plus system collects early Off-Time data and can

also be processed for subtle resistivity changes, that can be highly useful in identifying subtle lithological changes plus alteration. Further, the VTEM data can be processed to enhance ‘negative transients’, which are proportional to Chargeable sources in the near-surface bedrock, which can include disseminated sulfides, under the right circumstances.

Figure 9-1: 2021 VTEM and LiDAR Surveys over the Taylor Brook Project



The VTEM survey conductors are found in three main areas per Figure 9-1, namely the Layden Showing Area and extending northwesternly, a small cluster in the northeastern portion of License 031511M, and in the south over the Southern Lobe of the Taylor Brook Gabbro Complex. Most of Churchill's follow-up work has been in the Layden area as discussed in the following sections, and extending to the south. The airborne IP anomalies seem to be clustered along the margin of the North Lobe of the TBGC, and within structural

corridors elsewhere. All anomalies are being followed up with soil sampling and prospecting in 2023.

9.2 2021 Fieldwork

The 2021 fieldwork began with reconnaissance work and establishing core cutting and storage facilities at the permanent Exmounth Camp in early September 2021. Churchill supported all field activities through 2022 from Exmounth Camp, rented on a per diem basis from Co-ordinates Capital Corporation, of St. John's, NL. Room and board were provided at the camp, which is ideally located at kilometre 2 along the Upper Humber River access road, some 25km from the Layden Showing work area.

9.2.1 Road Clearing and Bridge Repairs

Springdale Forest Resources Inc., of Springdale NL, were engaged for the drilling program, and to open-up pre-existing logging access roads which were completely overgrown with alders. As well some remedial work was completed on the surface of the bridge over the Upper Humber River.

Road-clearing was necessary from the km 23 turn-off from the Upper Humber River Road through to the bridge, and then down to the area of the Layden Showing as per Figure 9-2. All roads cleared were either existing logging roads, or major skidder trails. Springdale utilized both a CMI 250 Mulcher and an excavator for this work. The intent was to gain access to the Layden Showing area and nearby VTEM conductor plate targets for the drilling program.

9.2.2 Line Cutting

The thick bush and extensive undergrowth in the area of interest prompted the need for a cut-line grid to allow better access for field crews. Titjaluk Logistics Inc., of Roddickton NL, were engaged for this work and along with CRI technicians, cut and picketed the grid. A total of 31,579m were completed before conditions became too wet in November, 2021.

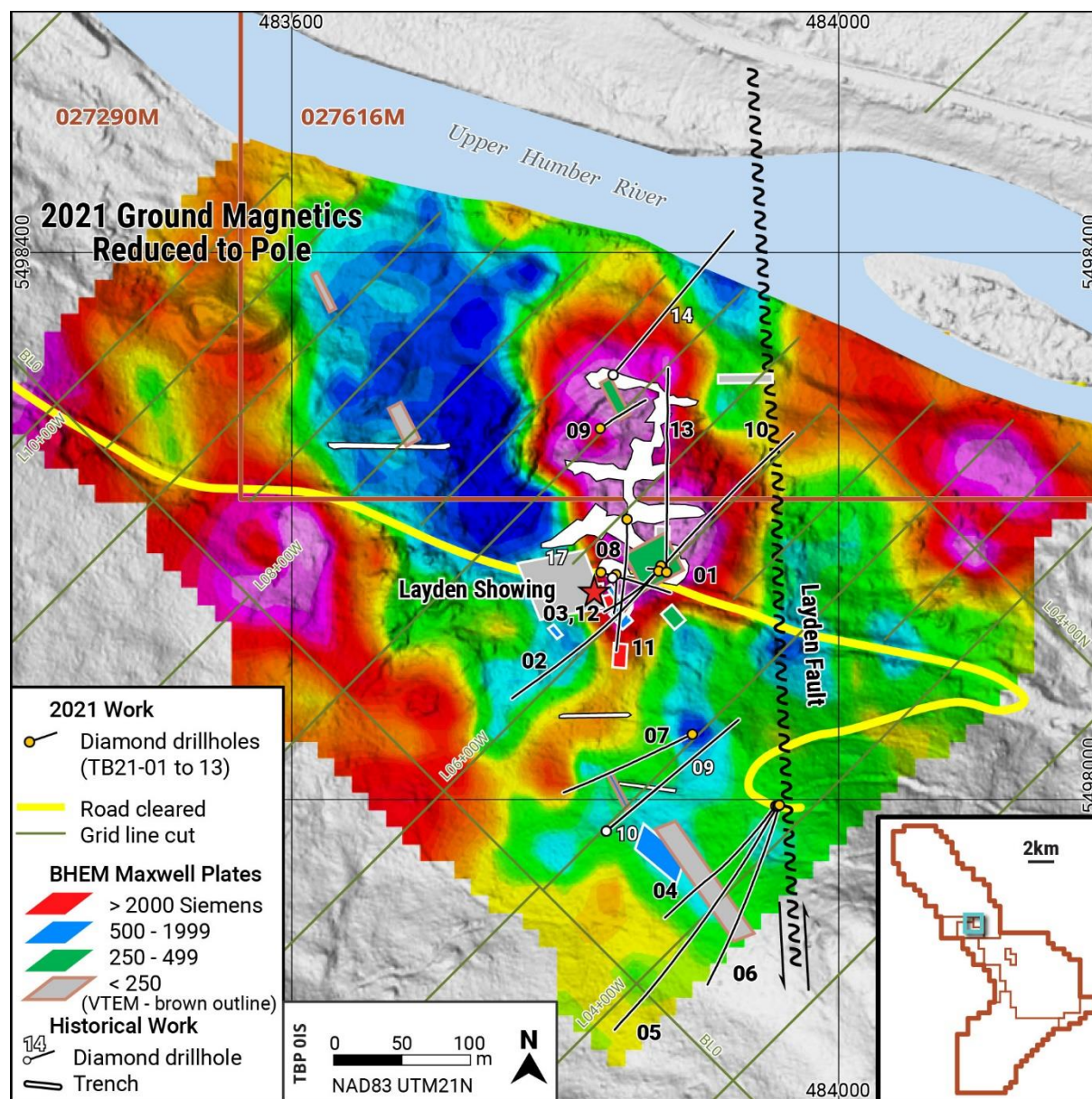
9.2.3 Borehole Electromagnetic (BHEM) Surveying

Eastern Geophysics Ltd., Corner Brook NL, were engaged to carry out borehole time-domain electromagnetic surveys of the 2021 drillholes and completed the surveying between November 6th to 24th, 2021. Eastern established surface loops of roughly 400m x 400m on the grid and surveyed holes 01, 02, 03, 05, 08, 11, 12 and 13.

In general, the surveys identified small off-hole conductors, with greater precision than the VTEM conductors. These are shown in Figure 9-2, below, and were used to

design the 2022 drilling program. Crone also recommended that holes 01, 10, 11 and 13 be extended, which was done at the beginning of the 2022 program. Timely BHEM surveying was carried out during the 2022 drill program, allowing for new targets to be generated and tested.

Figure 9-2: 2021 Drilling Plan with BHEM Conductor Plates on Ground Magnetic TMI



9.2.4 Ground Magnetic Surveying in the Layden Area

The VTEM magnetics survey (Figure 9-1), along with past ground survey work, emphasized a discrete, magnetically positive, anomaly at Layden, that CRI decided to better delineate. Accordingly, the grid was tightened up to 50m line spacing in

this area, and a GSM-19W Overhauser Walking Magnetometer and base station were rented from Quinlan Exploration Inc. of Birchy Bay, NL. Technician Steve Tsang carried out the survey during November 2021, and consulting geophysicist Sean Walker, Campbell & Walker Geophysics Ltd. (of Edinburgh, Scotland), provided quality control and interpretation services.

Figure 9-2 shows the total magnetic intensity data from the survey, reduced to the pole. The prominent north-south fault structure to the east of the Layden Showing was identified for the first time with this survey and is subsequently referred to as the Layden Fault.

9.2.5 Geochemical, and Petrographical Studies

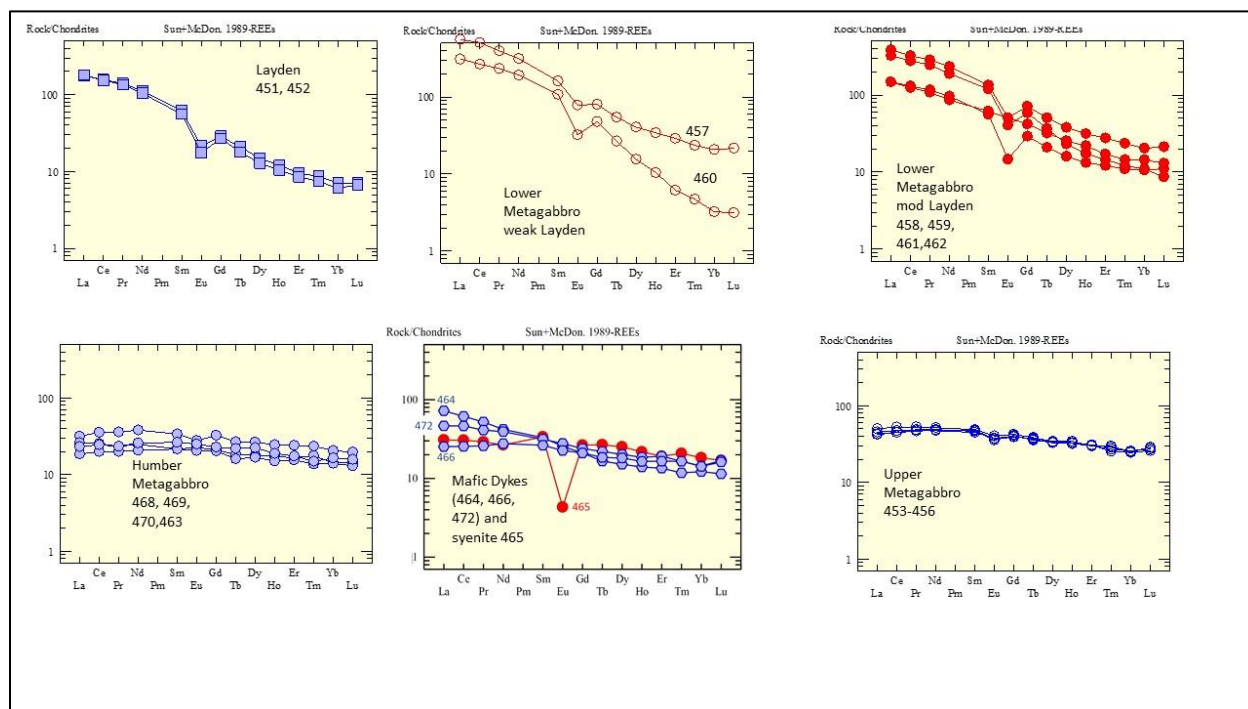
The geochemical and petrographical characteristics of the intrusive rocks at Layden became a priority interest for the project, and Dr. Derek Wilton of Terra Rosetta Inc., St. John's NL, was engaged to help select relevant samples from core, and interpret the geochemistry. Petrographical samples were sent to Dr. Fabrizio Columbo of Ultra Petrography and Geoscience Inc., Vancouver, BC. Geochemical analysis was carried out by ALS Canada Ltd., of North Vancouver, BC.

Petrographic examination of the 2021 samples positively identified the mineralization as ultramafic orthomagmatic pulses into the Layden gabbro norite host and noted the similarity of the mineralized Western Dyke to the Layden gabbro norite intrusive. Importantly, metamorphic features were not observed by Dr. Columbo, suggesting these that intrusive rocks were not Grenvillian (i.e., had experienced Grenville metamorphism).

This had become obvious to CRI personnel upon discovery of the Humber "Metagabbro" some 2km north of Layden, where there are clear discordant intrusive contacts with, minimal deformation of, the gabbro norite plug. The Humber and upper Layden gabbro norites appear to be identical both chemically and petrographically. Field terminology for the gabbro norite had referred to it as a "Metagabbro" in 2021, but this nomenclature was discontinued upon reception of Dr. Columbo's final report in March of 2022. Trace element plots for the gabbro norites ("metagabbros") and Layden breccia pulses are provided in Figure 9-3. The geochemical data were plotted using the Igpet© plotting program.

These results along with the 2022 geochemical work are discussed fully in Section 9.3.9.

Figure 9-3: Normalized REE Plots of Layden Intrusive Mineralized Breccias, Host Gabbronorite, and Dykes from Wilton 2021 work



9.3 2022 Fieldwork

2022 fieldwork commenced in late April with the opening of the Exmouth Manor camp and the first arrival of field personnel to the Taylor Brook Project. Initial road clearing and drill pad preparation was commissioned immediately, as were line-cutting and large loop TDEM work, all hampered somewhat by the still melting, deep snow cover. Drilling operations commenced May 23rd with the extending of four 2021 holes as recommended by Crone Geophysics following the borehole EM work completed in late 2021.

Soil sampling commenced in June as more of the grid had been completed and ran initially through late July. The Heli-GT detailed magnetic gradiometer survey also was carried out in June. Drilling and geological mapping work continued through the summer to early September. Borehole and Televier surveying took place initially during drilling in the summer and was subsequently completed in October on the last ten holes. Soil work recommenced in October and all fieldwork ceased on November 20th with the camp being vacated.

Individual 2022 work items are discussed in the following sections.

9.3.1 Road Clearing and Line Cutting

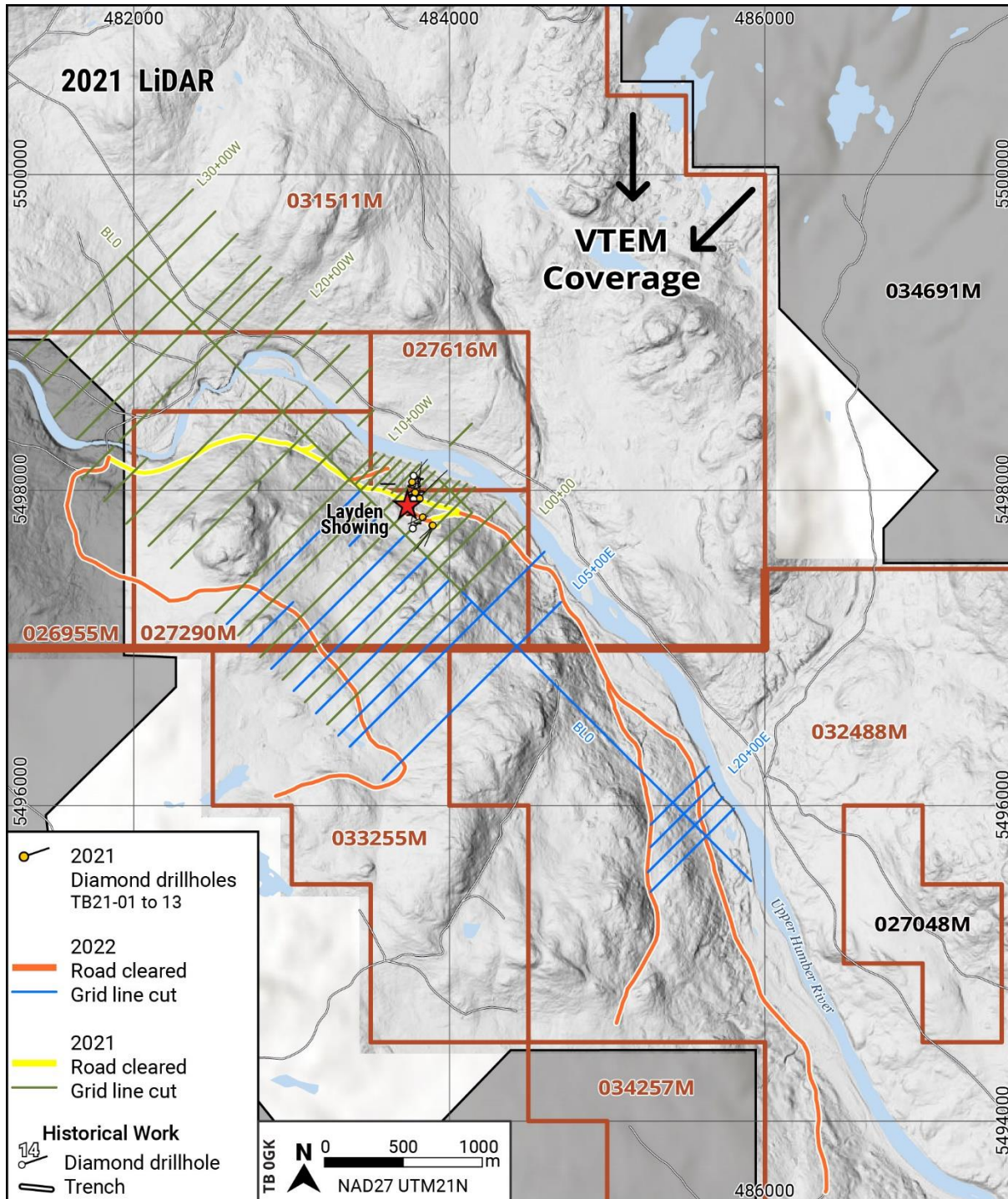
The 2022 road clearing and drilling were carried out by Major's Contracting Limited of Deer Lake, NL, who placed an excavator with the drilling equipment on site. This allowed for seamless drill pad clearing and levelling by the drilling crew, but as well dedicated road-clearing work with an operator, from time to time as needed. Churchill had several of the historical trenches cleared of alders by the excavator, and approximately 25km of pre-existing logging roads were opened to allow much better access for the line cutting, soil sampling, and access by geophysical and geological personnel.

Where outcrops of interest were noted along the road, these too were cleared of alders to allow for washing, mapping, and sampling as appropriate. Only the extensive historical trench network at the Layden Showing was systematically channel sampled, with outcrops along the road sampled for petrographical and geochemical data.

Figure 9-4 shows the extent of the roads that Churchill had cleared for the project, as well as line cutting to date.

Line-cutting operations were again subcontracted to Titjaluk Logistics, Roddickton NL, who supplied a fully equipped crew for the work, whom also stayed at the Exmounth Camp. Work was slow initially due to the deep snow, and numerous lines needed to be re-cut after the thaw. Figure 9-4 shows the additional 15.2km of grid lines that were completed by the end of May, as well as the four lines to the south (Lines 19E to 22E) that were cut in November, 2022.

Figure 9-4: 2022 Line-Cutting and Road Clearing



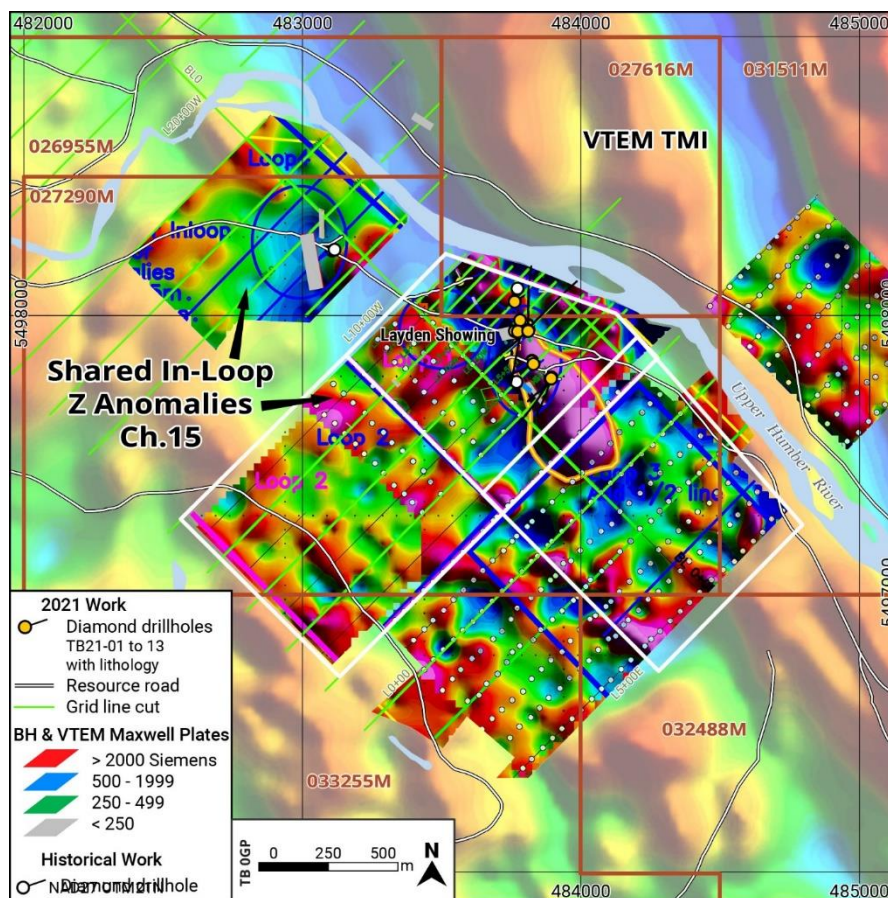
9.3.2 Time Domain Electromagnetic (TDEM) Surveying

Eastern Geophysics Ltd. was again subcontracted for geophysical work on the project in 2022 which included surface and borehole EM surveying, as well as Optical and Acoustic Televierer borehole surveying. Eastern utilized two local technicians who commuted to the project daily and carried out the TDEM work until interrupted for more urgent BHEM and Televierer surveys of holes as requested by CRI. A third technician assisted intermittently.

Eastern commenced work on May 19th by which time more grid lines had been cut, and snow cover had rapidly diminished. Work continued intermittently throughout the summer until the end of August, by which time 59 operational days had been accumulated. The equipment used was the Crone Pulse EM system. The Surface survey equipment consisted of a CDR4, 20 channel digital receiver, CHT3, 4.8 kw transmitter, a 6600w motor generator, and a surface induction coil (dB/dt). The synchronization for this surface survey was carried out with crystal clocks.

Three ~800m x 800m loops were laid out to best characterize conductors within the Layden intrusive area, as well as along strike to the southeast.

Figure 9-5: Plan Map of 2022 Large Loop TDEM Survey and Conductors



Surveys were conducted both outside of, and inside, the loops along cut-lines and, where needed, by traversing. In all, 24 lines were read from 18W to 5E at 100m intervals, for a total of 55,225m. Figure 9-5 shows a Channel 15 plan map of the gridded Early Time / Channel 15 response, and a large, weak anomaly (outlined in yellow) that extends from Layden to the southeast – which is broadly correlated with the Western Dyke conductors.

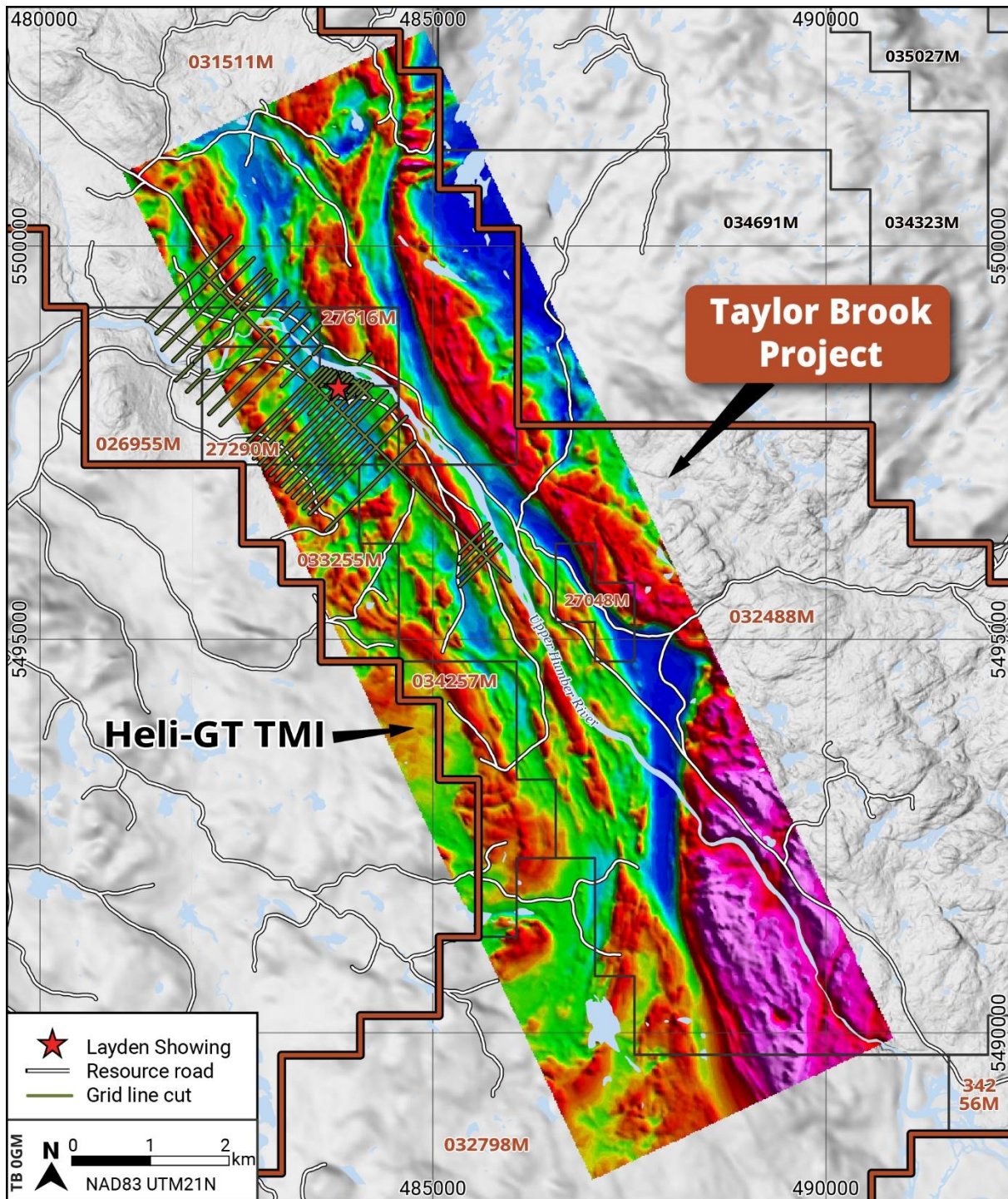
9.3.3 High Resolution Aeromagnetic Gradiometer (Heli-GT) Surveying

Churchill engaged Scott Hogg & Associates (SHA) of Toronto, ON, to fly their Heli-GT, helicopter-towed, 3-axis magnetic gradiometer system over a block of interest including the western margin of the Taylor Brook Gabbro Complex, which ranged from the southern end of the Taylor Brook South licenses up to well northwest of Layden as per Figure 9-6.

The survey was conducted at 50m spacing to bring better resolution to the magnetic data, which had been shown to be effective at mapping the magnetic Layden Intrusive gabbro-norite in the 50m ground survey. The survey was flown from May 30th to June 4th, 2022, with a total of 1,272 km of line-data collected. Of the total, 369 km of data were collected over the company's Taylor Brook licenses (027290M and 031511M), and 21 km and 17 km on Hicks License 027616M and Russell License 026955M, respectively.

The survey was very successful in discerning much more structural information and many more discrete magnetic intrusive features than the VTEM survey, as per Figure 9-6 which is a higher resolution magnetic image than what was available from previous surveys.

Figure 9-6: Plan Map of 2022 Heli-GT Survey Total Magnetic Intensity



9.3.4 Soil Sampling

Quinlan Exploration Inc. of Birchy Bay, NL provided a four-man crew and equipment which were dedicated to soil sampling on the overall Taylor Brook project during June and July. The crew returned in October to add to the coverage. Samples were collected along cut lines and through ‘bush-crashing’ traverses along proposed grid lines not yet cut, at 25m and 50m intervals as per Figure 9-7a below. Samples were standard B-Horizon soils, collected by auger and air dried in Kraft paper bags. The 2022 soils work collected 3,505 samples which were spread amongst the licenses near and southeast of the Layden Intrusive as per Table 9-1.

Table 9-1: 2022 Taylor Brook Project Soil Sample Summary per License

License	Owner	# of Samples	Property
031511M	CRI	774	Taylor Brook
027290M	CRI	1,039	Taylor Brook
027616M	Hicks	176	Taylor Brook
026955M	Russell	441	Taylor Brook
032488M	CRI	896	Taylor Brook South
033255M	CRI	<u>179</u>	Taylor Brook South
		3,505	

The focus during the summer sampling was to cover the grid on the southwest bank of the Upper Humber River, working along strike from Layden to the southeast. The fall sampling covered the area north and east of Layden, and across the Upper Humber River. All samples were submitted to the Eastern Analytical assay laboratory in Springdale, NL for ICP analysis. Several anomalous areas, including one named TBS-1, were identified with this work and will be systematically followed up in 2023, as discussed in Sections 18.0 and 19.0. Figures 9-7b and 9-7c show perspective views of the nickel and copper results for the 2022 sampling, along the upper portion of the Layden Intrusive Trend.

9.3.5 Outcrop Washing and Channel Sampling

The large historical trench network developed over the Layden Showing in 2000 by Altius/QNI became a major focus for CRI, as removal of alders for drill pad access in 2021 exposed mineralized breccia outcrops that had been exposed in earlier mapping from 2000 and 2007.

CRI personnel with Quinlan technicians systematically washed down these outcrops with a high-pressure pump and hoses, to allow for detailed mapping and sampling.

This work was extremely valuable as it identified several 10-15m wide, mineralized Layden breccia “pulses” intruding the gabbro-norite in roughly east-west corridors,

and furthermore that the breccia units, the gabbro-norite, and gneissic basement rocks at this location were isoclinally folded, with plunges to the east at ~60 degrees. Contact relationships between the host mottled gabbro-norite and the Layden breccia pulses were also exposed, confirming the intrusive nature of the pulses into the gabbro-norite “chamber”.

Figure 9-7a: Plan Map of 2022 Soil Sampling at the Taylor Brook Project

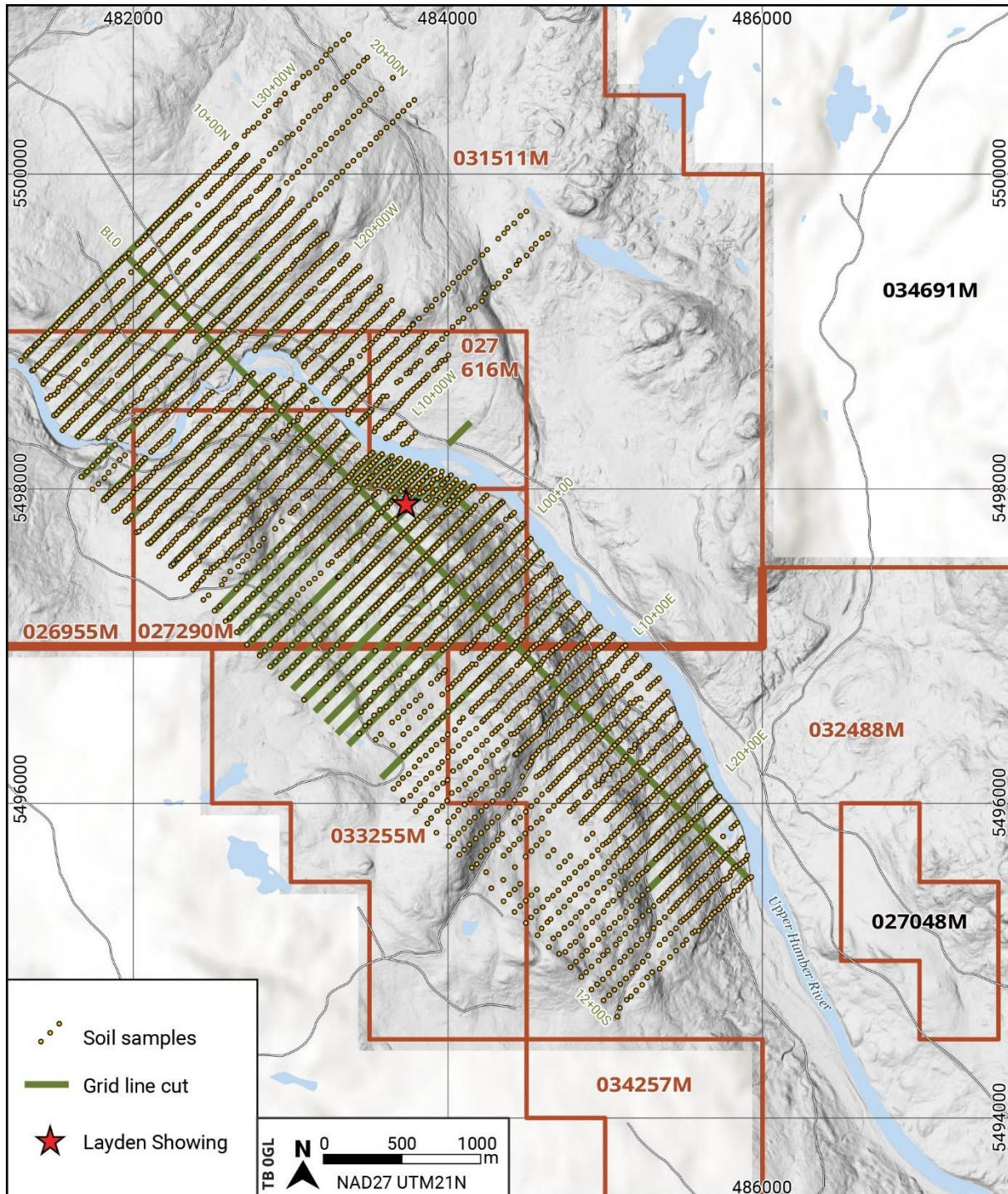


Figure 9-7b: Perspective Map from the Northwest of Ni Assays for 2022 Soil Sampling

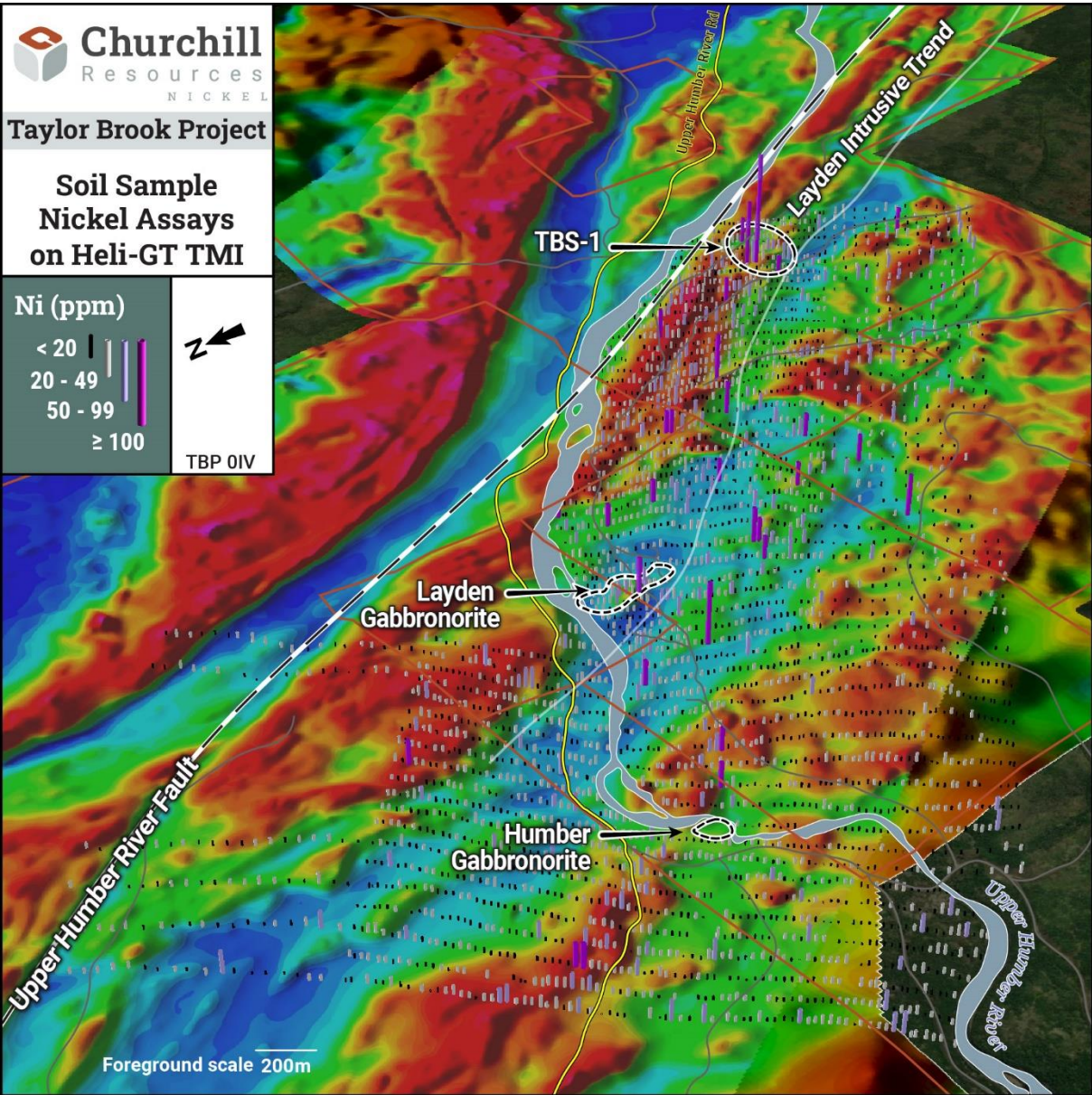


Figure 9-7c: Perspective Map from the Northwest of Cu Assays for 2022 Soil Sampling

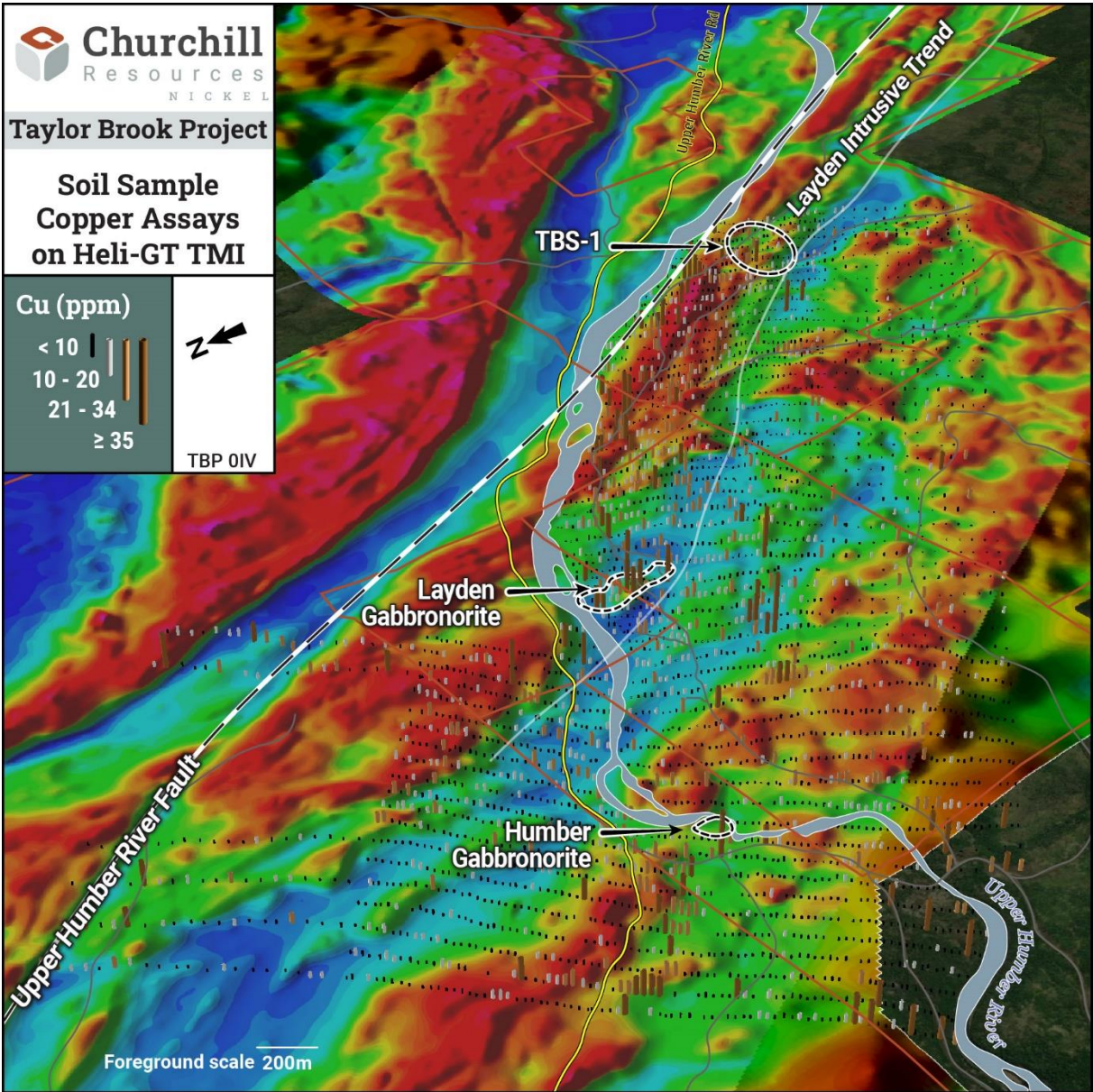
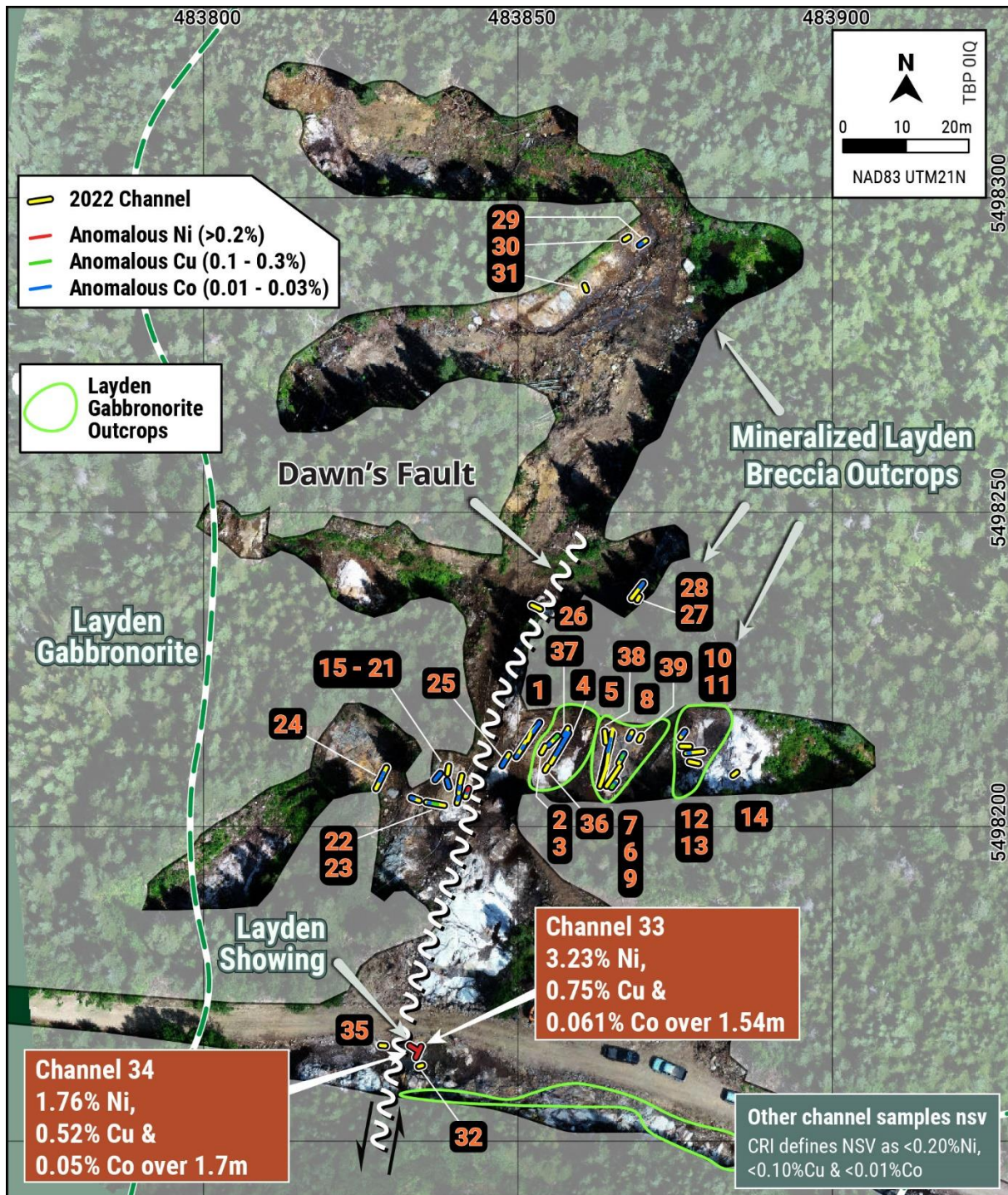


Figure 9-8: Plan Map of 2022 Layden Area Outcrop Washing and Channel Sampling



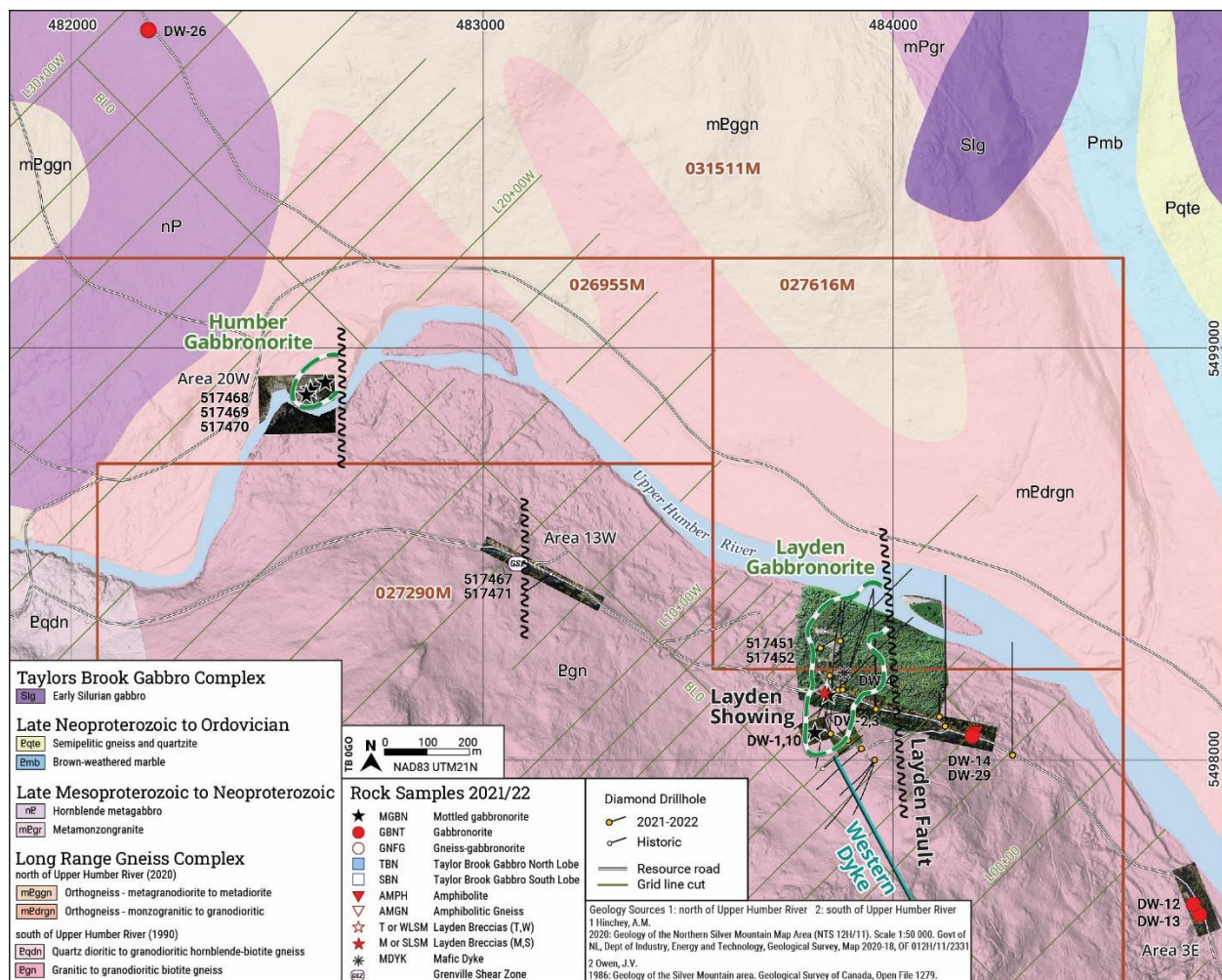
Thirty-nine channels of various lengths were cut and sampled by CRI/Quinlan personnel with the samples sent to Eastern Analytical for assay. Two short channels at the Layden Showing returned high-grade results (reported in a news release dated

October 10th, 2022), however, the heavily diluted breccias did not attain high tenors though they are generally anomalous in cobalt, and to a lesser degree, copper. Anomalous to high-grade nickel contents seem to be localized in the southern portion of the Layden Intrusive, whilst the breccia units through the centre and northern portion do not attain higher nickel grades based on surface sampling and drilling to date.

9.3.6 Geological Mapping

Mapping commenced on the property during the summer by Dawn Evans-Lamswood, P.Geo., and consisted of detailed 1:100 scale work over the large Layden trench network shown in Figure 9-8, as well as on washed outcrops along the road shown in Figure 9-9. It is instructive to note that Hinchey mapped the unit sampled by DW-26 (petrographically a gabbro) as Grenvillian hornblende metagabbro – a common misconception in this area. Owen by contrast mapped the DW-26 intrusive as biotite-hornblende granite.

Figure 9-9: Plan Map of 2022 Detailed Mapping Areas on Government Regional Geology



This mapping (Evans-Lamswood, 2023; pers. Com.) suggested that, based on Churchill's magnetic surveying, the area immediately west of the TBGC was intruded by younger mafic sill-like structures which trend north-northwesterly and are encapsulated within the basement rocks. These postulated early 'Silurian' sills may represent a series of multiple pipes or conduits which transported magmatic Ni – Cu – PGE bearing mineralization. The sills may represent tectonically controlled conduits along which multiple pulses of magma were pumped through the Grenvillian crust to form the TBGC. Two lobes have been recognized within the TBGC, an undifferentiated or younger North Lobe (magnetically negative and sulphide poor) and a differentiated older South Lobe (magnetically positive and potentially sulphide rich).

The sill complex (locally referred to by Churchill as the Layden Gabbronorite) has been skewed, or rotated, with its eastern side down, dipping 50-60° NNE, crudely paralleling the TBGC. Such an orientation would be ideal for feeding multiple, magmatic pulses that could have formed the TBGC, as well as to separate the undifferentiated North Lobe magmas from the differentiated, South Lobe magmas. The outcropping mineralized Layden Gabbronorite and Western Dyke possibly represent a feeder pipe filling the TBGC. Multiple magmatic pulses could propagate through these feeders associated with brittle and ductile structures.

The Layden breccias consist of ultramafic-mafic magma pulses with Ni-Cu mineralization within ultramafic matrices. The matrix supported fragments locally consist of gabbronorite, quartzo-feldspathic-biotite gneiss and granitic gneiss lithologies.

The Layden breccias display two cross-cutting fabrics, NNE-directed and NNW-SSE-directed. The NNE-directed shears may be related to the magmatic feeders of the older differentiated TBGC (South Lobe) magmas, whereas the NNW-SSE fabric may reflect the transport of younger (undifferentiated North Lobe) magmas now represented by mottled gabbronorite. This NNW-SSE event is interpreted as being younger since it crosscuts the NNE fabric in the Layden breccia.

Along the access road transect (Figure 9-9, 9-11), which passes along the exposed Layden Showing, the Layden mineralized gabbronorite sill(s) and younger gabbroic chamber rocks are exposed. The gabbronorite rocks appear to have been poly-deformed within NNE-directed fold and thrusts (D₂) and older S₁ fabrics sub parallel to S₀ – the original Grenvillian fabric. The fold and thrusts exhibit D₂ strike-slip dextral (right-lateral) shears.

In this section, the gabbronorites underlie relatively undeformed mottled gabbrodiorite. The fold and thrust fabrics within the older gabbronorites host both simple shear along the fold surfaces, and multiple shear events, altogether producing rounded-bulbous fragments. The rounding or shearing is interpreted to have resulted from the fold and thrust system and a second sinistral (left-lateral) Layden Fault event wherein offset is interpreted at ~100m.

The Layden fault is interpreted as a splay off the major Upper Humber River Fault (“UHRF”), a newly recognized NNW-SSE sinistral strike slip fault to the east of the Layden Intrusive/breccia and is just west of the TBGC. The NNW-SSE orientated, macroscopic deformation zone intensely shears and intercalates Grenvillian rocks (granodiorites) and quartz-biotite orthogneisses peripheral to the Layden sill. Magnetic data suggest left-lateral offset in the order of several kilometres may have occurred along the UHRF.

The Layden gabbro-norite can be locally modelled as a tightly folded sequence with later over-printing of the easterly directed fold and thrust system (Figure 9-11). This represents a repetition of units at depth and the NNE-directed fold and thrust overprinting. The tight folding may represent early buckling of the sequences or the slumping and overturning of the fold limbs within the thrusts.

The Layden gabbro-norite hosts massive to semi massive Ni-Cu mineralization. All intrusive rocks on the property, including the mottled gabbro-norite are intruded by thin (ca.10 cm) gabbro-norite micro sills or dykes. These narrow sequences, as observed throughout the property, exhibit multiple phases of micro-mesoscopic shearing in all the rock sequences. The thin sequences appear to contain minor contents of metallic sulphides (dominantly pyrrhotite and chalcopyrite, locally with pyrite). This phase may be related to the TBGC as a network of magma transporting pipes. This micro-sill and micro-dyke network cross-cuts the Layden Breccia zone and extends along strike, parallel to the TBGC.

Based on regional surface interpretations and aerial magnetic surveys, the overall Layden Intrusive Trend/Sill is represented as a coherent sequence of multiple linear highs and lows that extend over a distance ~10km. These regional structures could represent the products of transpressional tectonics that developed negative and positive flower structures in the underlying lithologies. For example, old, differentiated sequences might produce magnetic highs and young, undifferentiated rocks (more crustal in composition) would be displayed as magnetic lows.

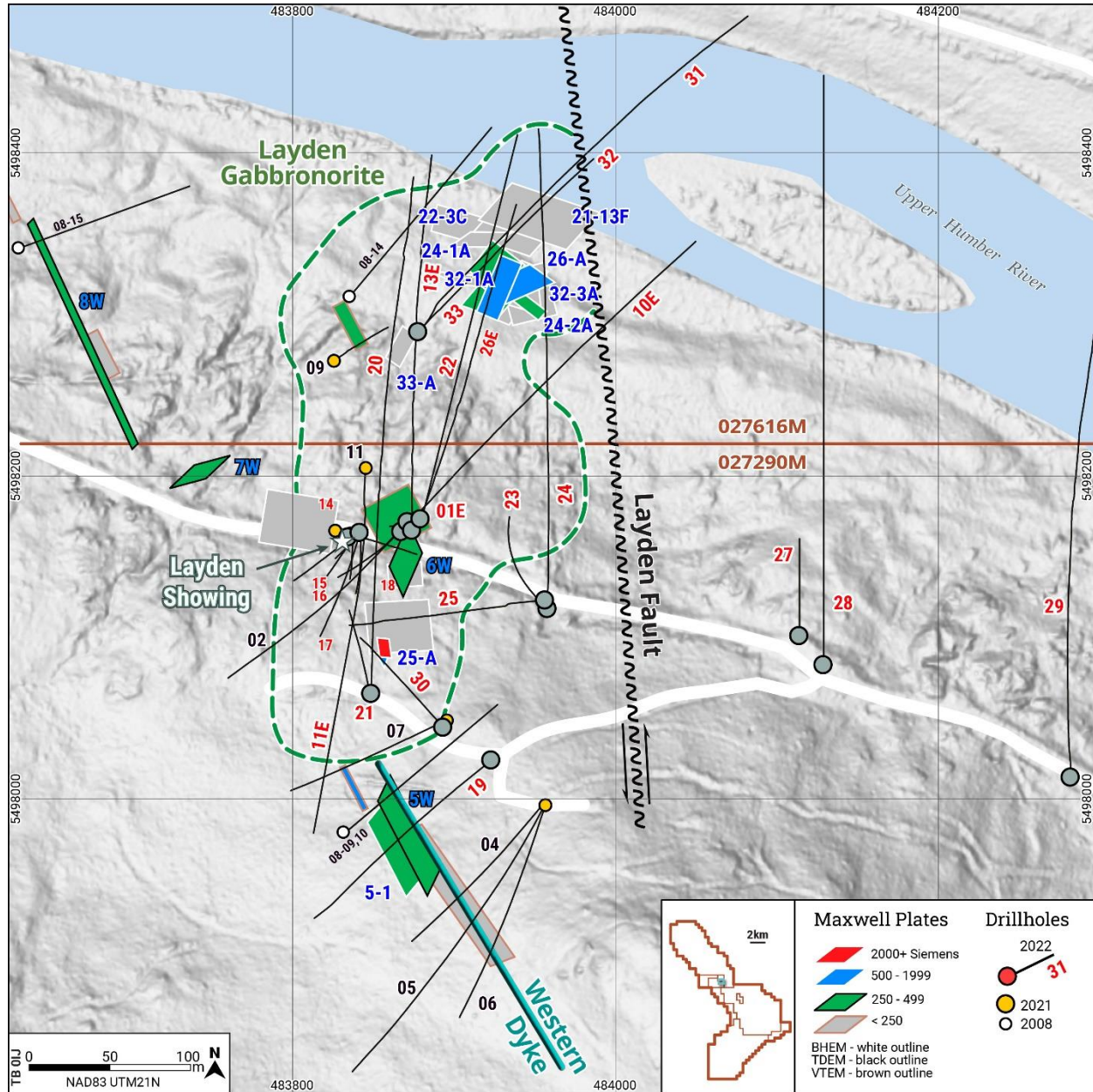
9.3.7 Borehole Electromagnetic (BHEM) Surveying

The 2022 BHEM work was carried out by Eastern Geophysics’ crew during drilling breaks and was completed after the rig had demobilized in September. Eastern established surface loops on the grid, and used the TDEM loops as appropriate, to survey holes TB21-01E, -10E, -11E, -13E, and TB22-14, -15, -17, -19, -20, -22, -23, -24, -25, -26, -28, -29, -30, -32 and -33.

Maxwell plate modelling was conducted by Crone Geophysics and the compiled, TDEM, BHEM and VTEM defined plates are plotted on Figure 9-10. Two general conclusions from the data are that higher conductance plates appear to reflect massive

and net-textured sulphides, whereas the weaker plates generally map structural features, or zones of stringer type breccia mineralization.

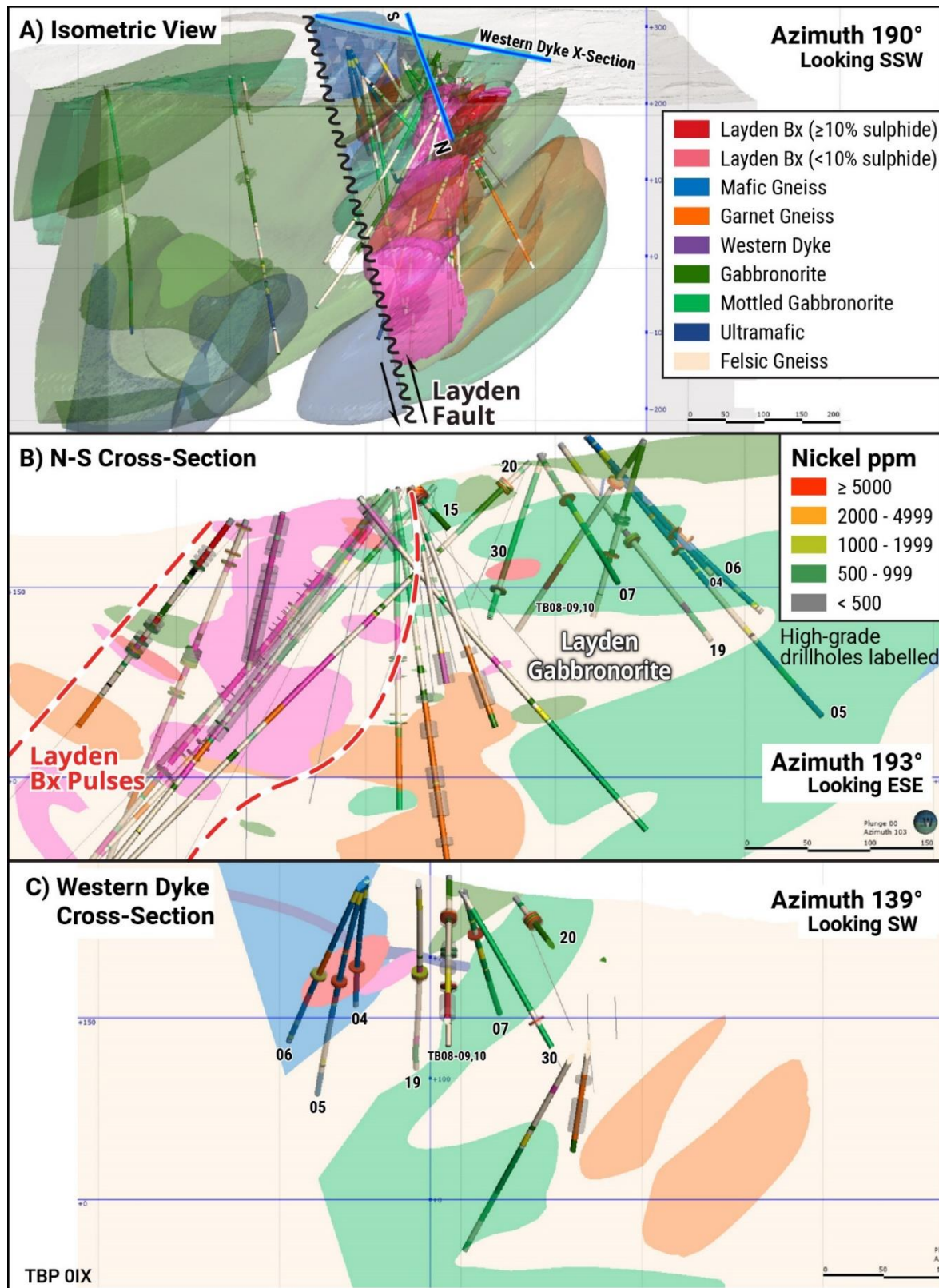
Figure 9-10: Plan Map of 2022 Borehole Conductor Plates and Core Drilling



9.3.8 Borehole Televiwer Surveying and Geological Modelling

Eastern Geophysics carried out borehole optical and acoustic televiwer surveys on the same holes that were pulsed with the BHEM equipment along with 2021 holes TB21-02, -03, -05, and -08. The survey data were submitted to Aleksandra Savic, an

Figure 9-11: Perspective View and Sections of Layden Magmatic Intrusive Leapfrog™ Geological Model with Nickel Assays



independent consultant based in Mississauga, ON, for interpretation. From the data, Ms. Savic interpreted oriented contacts and other geological structures within each hole, and also provided digital images of important features.

The oriented structural data were assimilated into CRI's geological modelling database for the project and, along with the logged lithological data, to produce a detailed Leapfrog™ model for the Layden Gabbro as shown on Figure 9-11. Salient features portrayed by the Leapfrog™ model include easterly-plunging isoclinal folding of the gabbro and the flattening ('squeezing') of the Layden Breccia mineralized zones along these fold axes. The N-S section clearly shows the demarcation of the extensive breccia zones in the northern portion of the intrusive, and only low-grade Ni values within that unit. In contrast, the Ni assays within the southern portion of the gabbro, and the Western Dyke, are of higher-grade, with widths and tenors greatest around the original Layden Showing.

The sinistral Layden Fault is a prominent feature truncating the Layden mineralization down-plunge to the east. Churchill's high-grade nickel intersections have thus far been confined to the Western Dyke area as well as to the southern portion of the Layden Gabbro plug. The deepest intersection to date is in hole TB22-30 with net-textured sulphides at approximately 100m below surface, which appear to be directly below the high-grade intersection in hole TB22-20. Laterally there does appear to be ~200m of shallow continuity of mineralization between hole TB22-15 beneath the Layden Showing and hole TB21-06 in the Western Dyke.

The contact zone of the Western Dyke with the Layden Gabbro plug is not understood presently and will be targeted, along with deeper holes beneath the shallow high-grade intersections, in 2023.

9.3.9 Geochemical, Petrographical and Age-dating Studies

The geochemical and petrographical characteristics of the intrusive rocks at Layden, as well as those of the Taylor Brook Gabbro Complex, continued to be a priority interest for the project. CRI again engaged Dr. Derek Wilton to select relevant outcrop and core samples and interpret the geochemistry. Petrographical samples were sent to Dr. Fabrizio Columbo of Vancouver, BC. Geochemical analyses were carried out by ALS Canada Ltd., of North Vancouver, BC. Table 9-2 lists samples analysed in 2021-2022 which constitute the project geochemistry and petrography database.

Figures 9-12 and 9-13 show the locations of the outcrop geochemical samples on maps of the regional geology, and CRI's Heli-GT magnetics survey, respectively. Of particular importance to CRI has been establishing the geochemical and age relationships between:

- 1) The Layden Mottled Gabbro "chamber" to the mineralized Layden Breccias

Table 9-2: 2022 Petrographic/Lithogeochemical Sample Summary

2021 Samples								
SAMPLE	Hole No./Type	Sample Tag No.	Depth	UTM East	UTM North	Field Description	Petrographic Rock Type	CRI Rock Code
517451	Grab	517451				Layden semi-massive sulphide pyroxenite	Pyrrhotite-rich hornblende-micronorite	SLSM
517452	Grab	517452				Layden semi-massive sulphide pyroxenite	Pyrrhotite-rich hornblende-microgabbronorite	SLSM
517453	TB21-01	517453	11			"upper" metagabbro	Hornblende-pyroxene-microgabbronorite	MGBN
517454	TB21-01	517454	37.5			"upper" metagabbro	Hornblende-pyroxene-microgabbronorite	MGBN
517455	TB21-01	517455	83.2			"middle" metagabbro	Pyroxene-hornblende-microgabbronorite	MGBN
517456	TB21-01	517456	98.5			"middle" metagabbro	Pyroxene-hornblende-microgabbronorite	MGBN
517457	TB21-01	517457	108.2			"lower" gneissic metagabbro - weak Layden mineralization	Pyrrhotite-magnetite-bearing hornblende-microgabbro	WLSM (GNFG)
517458	TB21-01	517458	135.2			"lower" gneissic metagabbro - moderate Layden	Pyrrhotite-bearing clinopyroxene-norite	MLSM
517459	TB21-01	517459	143.6			"lower" gneissic metagabbro - moderate Layden	Metagabbro	MLSM
517460	TB21-01	517460	161.3			"lower" gneissic metagabbro - weak Layden mineralization	Biotite Orthogneiss	MLSM
517461	TB21-01	517461	177.6			"lower" gneissic metagabbro - moderate Layden	Pyrrhotite-chalcopyrite-bearing microgabbro & foliated microgabbronorite(?)	MLSM
517462	TB21-01	517462	188.7			bottom gneissic metagabbro - moderate Layden	Orthogneiss	TTCT
517463	TB21-01	517463	201.5			tiger-striped gneissic metagabbro - unmineralized	Actinolite-cummingtonite-altered gabbronorite	TTCT
517464	TB21-04	517464	9.8			upper mafic dyke	Foliated pyroxene-hornblende microgabbronorite	MDYK
517465	TB21-04	517465	21			syenite/qfp dyke	Sericite-chlorite-altered qtz-plag-Kspar-phyrlic microsyenite	SYNT
517466	TB21-04	517466	80.4			lower mafic dyke	Hornblende microgabbro	MDYK
517467	Grab	517467	Grab	483016	5498273	772953 - showing near TB08-16 collar	Hornblende microgabbro	Grenville Shear Zone
517468	Grab	517468		482572	5498889	"Humber" metagabbro lower contact (sheared)	Sericite-chlorite-altered hornblende microgabbro	MGBN/GB
517469	Grab	517469		482583	5498900	"Humber" metagabbro middle	Pyroxene-hornblende-microgabbro	MGBN/GB
517470	Grab	517470		482618	5498919	"Humber" metagabbro upper contact (closest to river)	Sericite-actinolite-altered hornblende-microgabbro	MGBN/GB
517471	Prosp. Grab	517471		483016	5498273	Cu showing near TB08-16 collar	Sericite-actinolite-altered metagabbro with qtz-chlorite calcite veinlets	Grenville Shear Zone
517472	TB21-08	517472	16.2			mafic dike	Orthocumultic(?)pyroxene-hornblende gabbronorite	MDYK
517473	TB21-08	517473	35.5			metapyroxenite upper contact	Hornblende-bearing microgabbronorite	MGBN/GBNT
517474	TB21-08	517474	58.8			metapyroxenite	Olivine-microgabbronorite	MGBN/GBNT
517475	TB21-08	517475	71.4			metapyroxenite lower contact area	Olivine-microgabbronorite	MGBN/GBNT
517476	Grab	517476		491487	5495659	Gabbro dyke from Taylor Brook Intrusive Complex	Plagioclase-phyrlic micronorite(?)	MDYK
517477	TB21-13	517477	43.4			Layden-style pulse - moderate	Metagabbro/orthogneiss(?) & Olivine-microgabbro/microgabbronorite	MLSM
517478	TB21-13	517478	13.8			Metagabbro	Olivine(?) microgabbro	MGBN/GB
517479	TB21-13	517479	89.5			Layden-style pulse - weak	Metagabbro(?) and Pyrrhotite-pyrite-bearing metagabbro	WLSM
517480	TB21-13	517480	133.4			Layden-style pulse - moderate	Orthogneiss and microgabbronorite lens/relic	MLSM
517481	TB21-13	517481	161			Layden-style pulse - weak	Ultramafic and metagabbroic rocks & cummingtonite-actinolite-quartz-magnetite vein	MLSM
517482	TB21-13	517482	200.6			Layden-style pulse - weak	Layered microgabbronorite	MLSM
517483	TB21-13	517483	234.8			Layden-style pulse - moderate	Metagabbronorite(?)	MLSM
TB21-11-14.3	TB21-11		14.3			Layden-style pulse - strong	used for age dating	MLSM
TB21-11-32.3	TB21-11		32.3			Layden-style pulse - moderate	used for age dating	MLSM
TB21-11-37.1 PEG	TB21-11		37.1			Pegmatite?	used for age dating	PGMT
TB21-11-37.1 IAY	TB21-11		37.1			Layden-style pulse - moderate	used for age dating	WLSM
2022 Samples								
SAMPLE	Hole No./Type	Sample No.	Depth	UTM East	UTM North	Field Description	Petrographic Rock Type	
GC-1	Channel 21	884610				Layden-style pulse - weak	Pyrrhotite-bearing orthopyroxenite	WLSM
GC-2	Channel 9	884575				Layden-style pulse - weak	Meta-gabbro & Meta-norite?	WLSM
GC-3	Channel 11	884579				Layden-style pulse - weak	Meta-orthopyroxenite & metagabbro?	WLSM
GC-4	Channel 27	884638				Layden-style pulse - weak	Metaleucogabbro & metagabbro & metapyroxenite?	WLSM
DW-1	Field Sample			483817	5498035	Mottled GBNT west of TB22-20 collar	Pyroxene-hornblende gabbronorite	MGBN
DW-2	Field Sample			483846	5498160	Mafic dyke intruding Layden at showing	Pyroxene-hornblende microgabbro	MDYK
DW-3	Field Sample			483845	5498160	Blocky gabbronorite at Layden	Pyroxene-hornblende microgabbro	MGBN/GB
DW-4	Field Sample			483883	5498210	Mafic dyke sub parallel to road at Layden oc	Hornblende microgabbro	MDYK
DW-5	Field Sample			490731	5495598	Taylor Brook Gabbro - north lobe?	Sericite-tremolite(?) altered pyroxene-hornblende gabbro	TBN/GB
DW-6	Field Sample			491490	5495651	Taylor's Brook Gabbro	Pyroxene-hornblende gabbro	TBN/GB
DW-7	Field Sample			493585	5497609	Taylor's Brook gabbro	Foliated orthopyroxene-clinopyroxene-plag-phyrlic gabbronorite	TBN/GBNT
DW-8	Field Sample			488466	5493188	Taylor's Brook gabbro (S. lobe)	Calcite-Fe-chlorite-altered gabbro	TBS/GB
DW-9	Field Sample			490326	5491318	Taylor's Brook gabbro (S. lobe);	Hornblende-plagioclase-phyrlic clinopyroxene norite	TBS/NT
DW-10	Field Sample			483817	5498035	Upper mottled GBNT (near TB22-20);	pyroxene-hornblende gabbronorite	MGBN
DW108	Field Sample	884053		485632	5496319	GBNT?	Fe-chlorite-sericite-altered meso-gabbro(?) & Sericite-Fe-chlorite-altered meso-gabbro(?) & Sericite-Fe-chlorite-altered leuco-gabbro	GBNT/GB
DW11	Field Sample	884054		485460	5496645	Strong fabric GBNT	Cummingtonite-Fe-chlorite-actinolite-epidote-altered pyroxene-hornblende-gabbro	GBNT/GB
DW12	Field Sample	884055		484748	5497623	GBNT?	Orthopyroxene-gabbro	GBNT/GB
DW13	Field Sample	884056		484733	5497647	GBNT?	Pyroxene-hornblende-gabbronorite	GBNT
DW14	Field Sample	884057		484727	5497642	GBNT	Gabbronorite	GBNT
DW-15	TB22-23	884058	115.00			MGNT - strong fabric	Magnetite-cummingtonite-actinolite-altered gabbro (altered pyroxene-hornblende-gabbronorite?)	MGBN
DW-16	TB22-23	884059	54.80			GBNT or AMPH dyke (biotite rich)	Foliated diorite(?)	GBNT/GB
DW-17	TB22-24	884060	84.70			GBNT or AMPH dyke (biotite rich)	Foliated diorite (or foliated gabbronorite?)	GBNT/GB
DW-18	TB22-24	884061	258.75			FG mafic dyke or chilled MGNT	Hornblende-pyroxene-gabbronorite	MDYK
DW-19	TB22-26	884062	257.70			WLSM with yellow matrix	Amphibole-biotite-altered gabbroic rock & Biotite-amphibole-altered mafic rock	WLSM
DW-20	TB22-26	884063	275.00			Peridotitic WLSM?	Foliated biotite-altered gabbronorite(?) & Biotite-amphibole-altered mafic rock(?)	WLSM
DW-21	TB22-22	884064	37.00			MGNT	Orthopyroxene-gabbro	MGBN/GB
DW-22	TB22-22	884065	40.55			WLSM with sulphide matrix	Orthopyroxene-hornblende-melanorite & Biotite schist	WLSM
DW-23	TB22-22	884066	46.70			FG GBNT	Weakly foliated micro-diorite	GBNT/GB
DW-24	TB22-22		95.08			WLSM with sulphide rich matrix for age dating		WLSM
DW-25	TB22-22		285.35			MLSM with sulphide rich matrix for age dating		MLSM
DW-26	TB22-22	884067	285.35			GBNT or peridotite for age dating	Pyroxene-hornblende-norite(?)	GBNT/UM
DW-26	Field Sample	884033		485626	5496356	amphibolite? at km 24 on Upper Humber Road	Pyroxene-hornblende gabbronorite	WLSM
DW-27	Field Sample	884034		486265	5494745	amphibolite? down Layden Road	Pyroxene-hornblende gabbronorite	AMPH/GBNT
DW-28	Field Sample	884035		485780	5495687	amphibolite? down Layden Road	Hornblende-gabbro	AMPH/GB
DW-29	Field Samples	884036		482188	5499776	amphibolite? Just past road to upper drill pads	Pyroxene-hornblende gabbronorite	AMPH/GBNT
PS-1	Field Sample	884051		483491	5496757	Discrete gbnt outcrop at top of hill on upper road	Actinolite-altered pyroxene-hornblende gabbro	GBNT/GB
PS-2	Field Sample	884052		483500	5496782	Associated impregnated mafic gneiss? To PS-1	Epidote-chlorite-biotite-quartz-altered gabbro(?)	GBNT/GB
884020	TB22-33	884020	294.85			Intrusive below Layden Gbnt	Pyroxene-hornblende gabbronorite	GBNT
884021	TB22-33	884021	232.90			Intrusive or dyke	Foliated meta(?)-gabbronorite	GBNT
884022	TB22-33	884022	171.85			dyke	Hornblende-pyroxene microgabbronorite	MDYK
884023	TB22-33	884023	116.33			coarse grained intrusive (olivine?)	Foliated norite	GBNT/UM
884024	TB22-33	884024	81.86			more coarse?	Pyroxene-hornblende norite	GBNT/UM
884025	TB22-33	884025	51.40			coarse grained intrusive	Hornblende-gabbro	GBNT/GB
884026	TB22-29	884026	425.80			UM? At bottom of hole	Cummingtonite-altered pyroxene-hornblende gabbronorite	ULMF/GBNT
884001	08-TB-14	884001	22.14			Thin "injection" in GBNT (more primitive?)	Clinopyroxene-norite & Cummingtonite-biotite-altered diorite & Biotite-altered gabbro or diorite(?)	GBNT/GB
884009	08-TB-14	884009	85.77			GBNT(?) part of Layden(?)	Quartz-biotite-altered norite?	GBNT/UM
884017	08-TB-14	884017	115.40			w-m Layden pulse	Norite	WLSM
884019	08-TB-14	884019	179.33			mafic dyke	Metagabbro(?)	MDYK

- 2) The Layden Mottled Gabbronorite to other gabbronorites (dykes and plugs) on the property
- 3) The Layden Mottled Gabbronorite to the Taylor Brook Gabbro Complex (North and South lobes)
- 4) The Layden Mottled Gabbronorite to older, amphibolitic Grenville intrusives

In the 2021 geochemical work, Wilton distinguished what he thought were two lithological groups in the gabbronorite (MGBN) and Layden pulse data (Figure 9-3); viz.,

- 1) Layden Pulses with LREE-enrichments, negative (-ve) Eu anomalies, and flat to depleted HREE, and
- 2) MGBN intrusives with flat REE patterns and minimal Eu anomalies, similar to those developed in most mafic magmatic rocks. The LREE-enrichment patterns in the Layden suite are similar to those exhibited by felsic magmatism which is conceptually problematic as: (a) the Layden pulse/matrix material is not felsic, and (b) Ni sulphide mineralization, such as at the Layden Showing, is associated with mafic magmatism, not felsic.

With geochemical data for more outcrop and drill core samples of gabbro and Layden pulse rocks, Wilton generated chondrite-normalized Rare Earth Element (REE) contents as diagrams (normalization factors from Sun and McDonough, 1989).

In evaluating rock petrogenesis, chondrite-normalized REE plots are typically used because: 1) REE are presumed to be resistant to alteration and even metamorphism, hence the REE pattern should be that of the original rock, 2) there are 15 REE elements in the suite, thus the patterns are not restricted to bivariate, or even trivariate, comparisons (i.e., 15 elements are compared rather than just two or three), and 3) the patterns on these types of diagrams provide subtle geochemical “fingerprints” that allow for the discrimination of rock types within a group of data.

Using the enlarged geochemical data set, Wilton observed three distinct patterns rather than two (Figure 9-14). These are:

- (a) MGBN mafic patterns (flat REE),
- (b) Layden LREE-enriched patterns, and

- (18) Ian intermediate group with LREE-enrichments, less than Layden but higher than MGBN, and distinct -ve Eu anomalies.

Figure 9-12: Geological Map of Taylor Brook Project Area with Geochemical/Petrographic Sample Locations

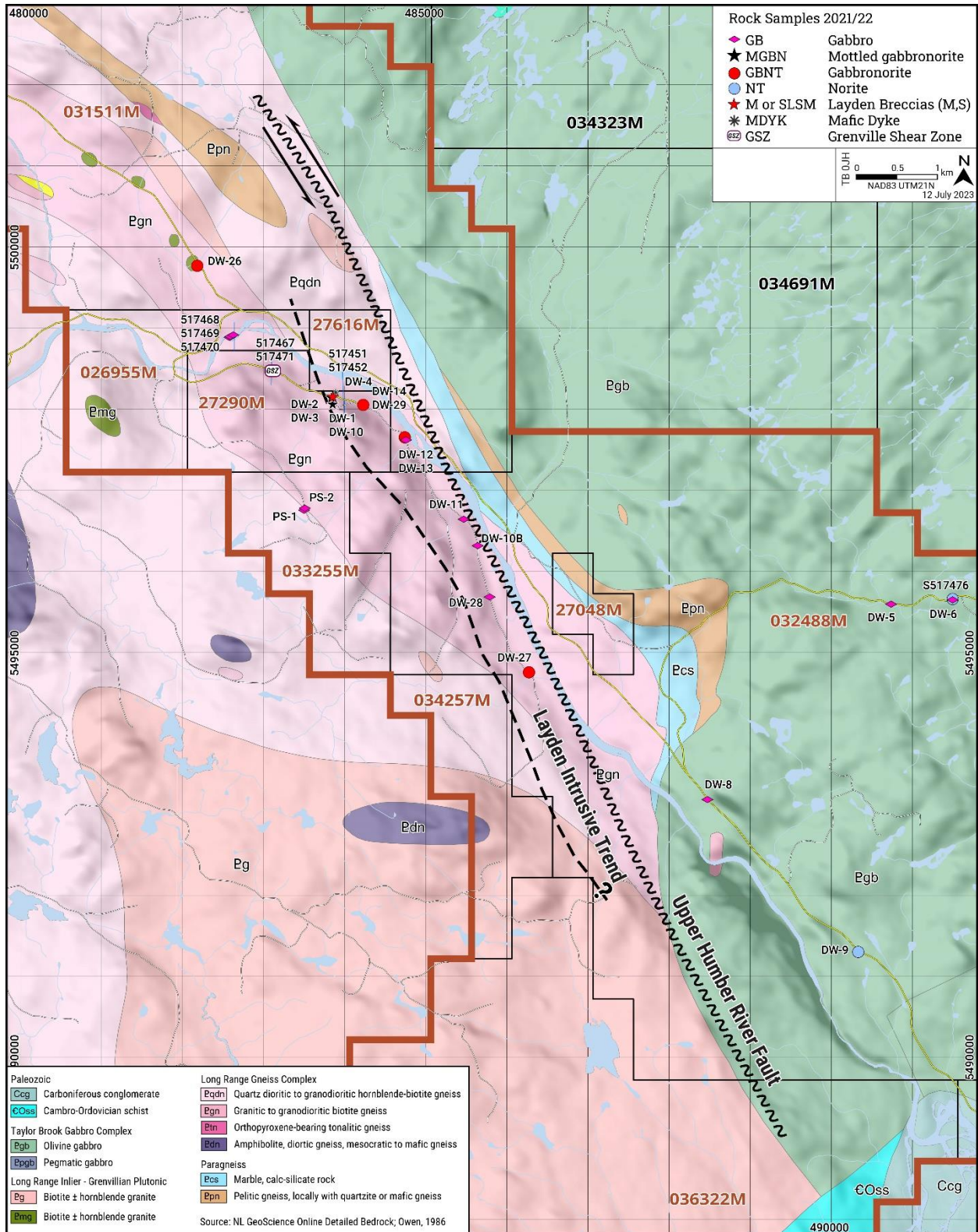
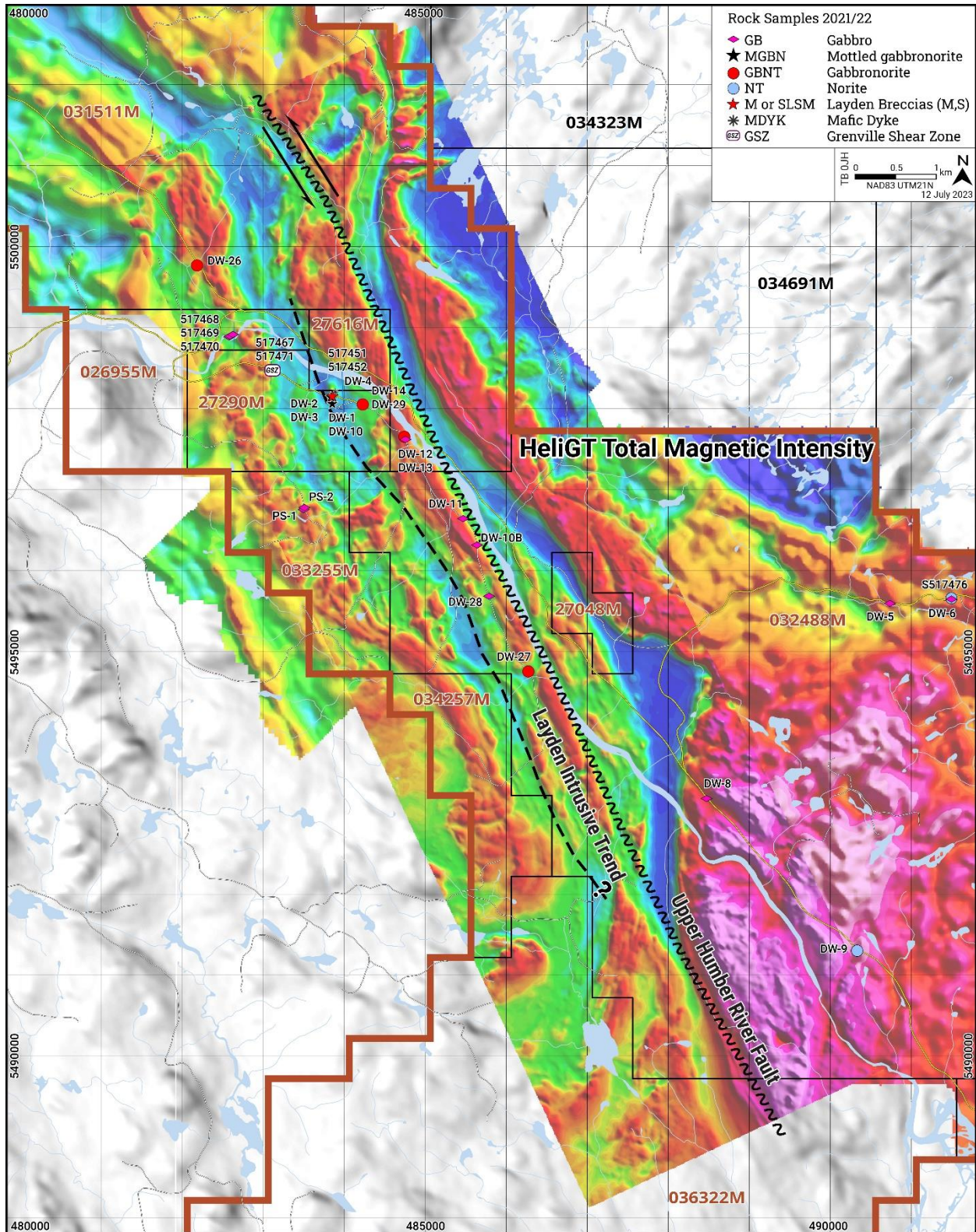


Figure 9-13: Total Magnetic Intensity Map of Taylor Brook Project Area with Geochem/Petrographic Sample Locations



The MGBN samples were mainly collected from road outcrops of Taylor Brook gabbro, the dyke cutting the Layden Showing, gabbro-norites including those with structural fabrics in contact with Grenville rocks on the road, and “mottled” gabbro and dykes from drill core. The common REE patterns of Taylor Brook, mottled gabbro, and gabbro with fabrics within Grenville rocks suggests a common origin for all the samples.

The Layden samples include channel samples with sulphide matrix, breccia matrix samples, but also some samples that were mapped as “peridotitic”, some that weren’t notably sulphide-rich, and one that was logged as a mafic dyke with no mention of sulphides.

The group of “intermediate” samples was somewhat puzzling as some were from road outcrops of “Taylor Brook” gabbro (TBG), two were channel samples, and three TB-14 drill core samples logged as MGBN.

Figure 9-14: Chondrite-normalized Rare Earth Element (REE) plots for gabbro and Layden intrusive samples

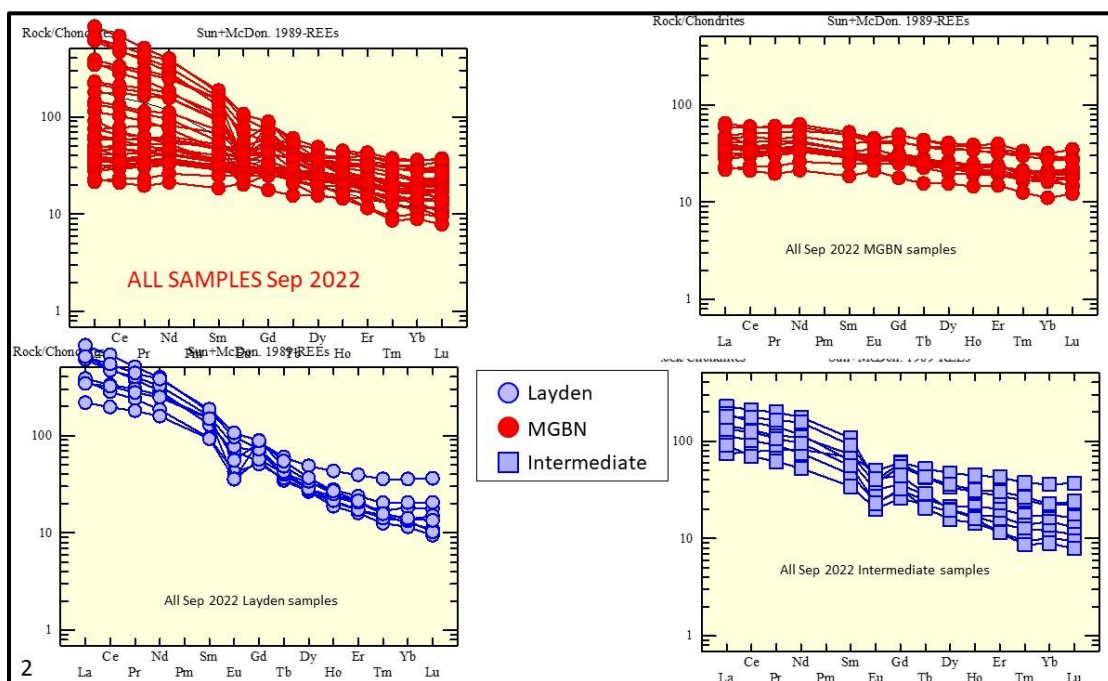
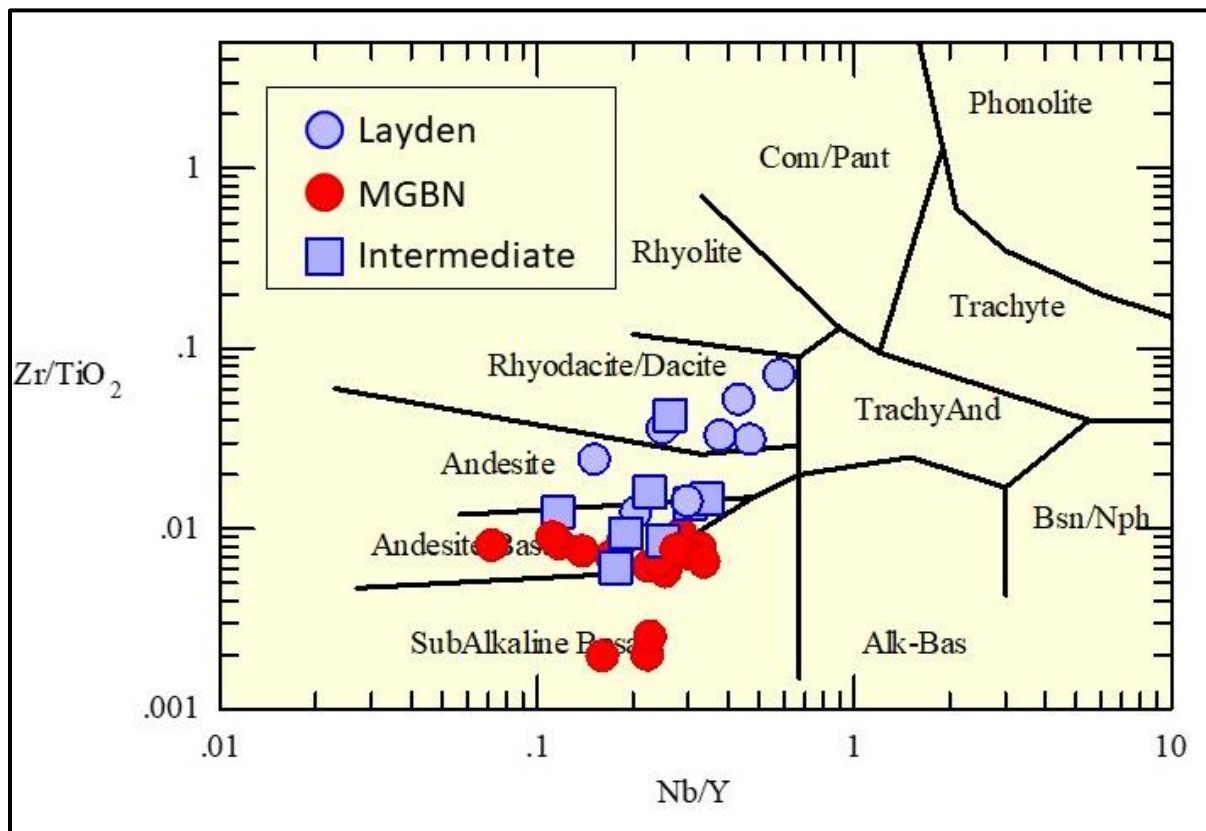


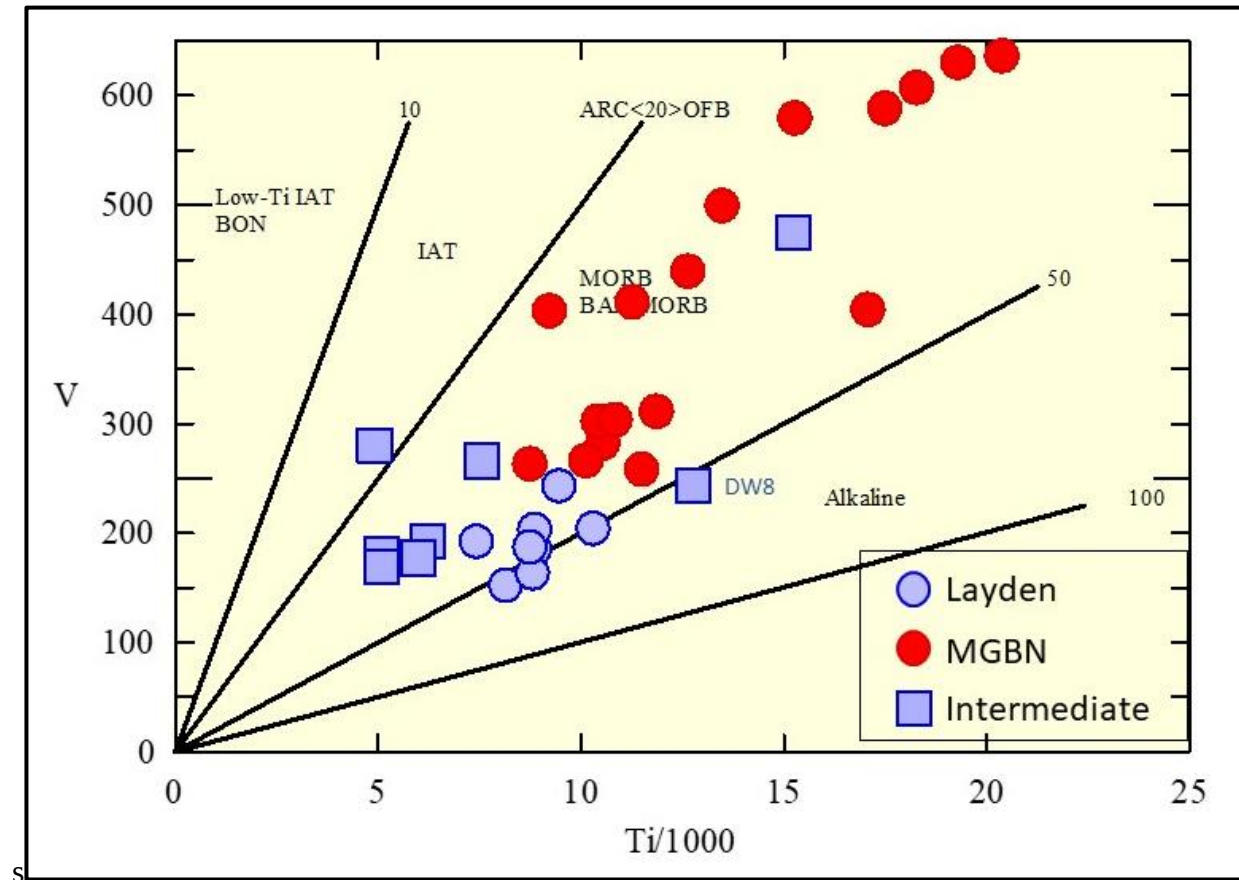
Figure 9-15 is a discrimination diagram from Winchester and Floyd (1977) with Layden and gabbro data plotted. The MGBN samples plot in the andesite/basalt, except for three from the north lobe of the TGB due to lower Zr contents. In contrast, the Layden and some intermediate samples plot with very high Zr, actually plotting in the andesite-dacite field. The very enriched Zr contents indicate that the parental magmas were either alkaline to peralkaline or were heavily contaminated by Zr-rich rocks; there is no evidence to suggest the intrusive magmas were alkaline.

Figure 9-15: Winchester and Floyd (1977) elemental discrimination diagram for MGBN, Layden intrusive, and Intermediate samples



On Figure 9-16 (after Shervais, 1982), all MGBN samples are Ocean Floor Basalt (OFB)-mafic (i.e., mantle-derived), and all Intermediate are OFB-mafic except DW8 which is described in notes as “fine-grained Taylor Brook Gabbro”. All the Layden samples plot as transitional to alkaline (suggesting possible contamination).

Figure 9-16: Shervais (1982) elemental discrimination diagram for MGBN, Layden intrusive, and Intermediate samples



On a Cr vs. MgO diagram (Figure 9-17), the MGBN contain very low (compared to the other samples) MgO and Cr contents, except DW4 (TBG) which plots with the most elevated MgO and Cr (i.e., may be contaminated like Layden). This is one of the few fractionation diagrams which suggest a possible link between magmas, but it is very odd in that the Layden and Intermediate samples contain the most MgO and Cr, whereas the MGBN are gabbro. There seem to be two fractionation trends: (a) MGBN fractionation and (b) possible fractionation in Layden and Intermediate samples.

Figure 9-17: Cr vs. MgO plot for MGBN, Layden intrusive, and Intermediate samples

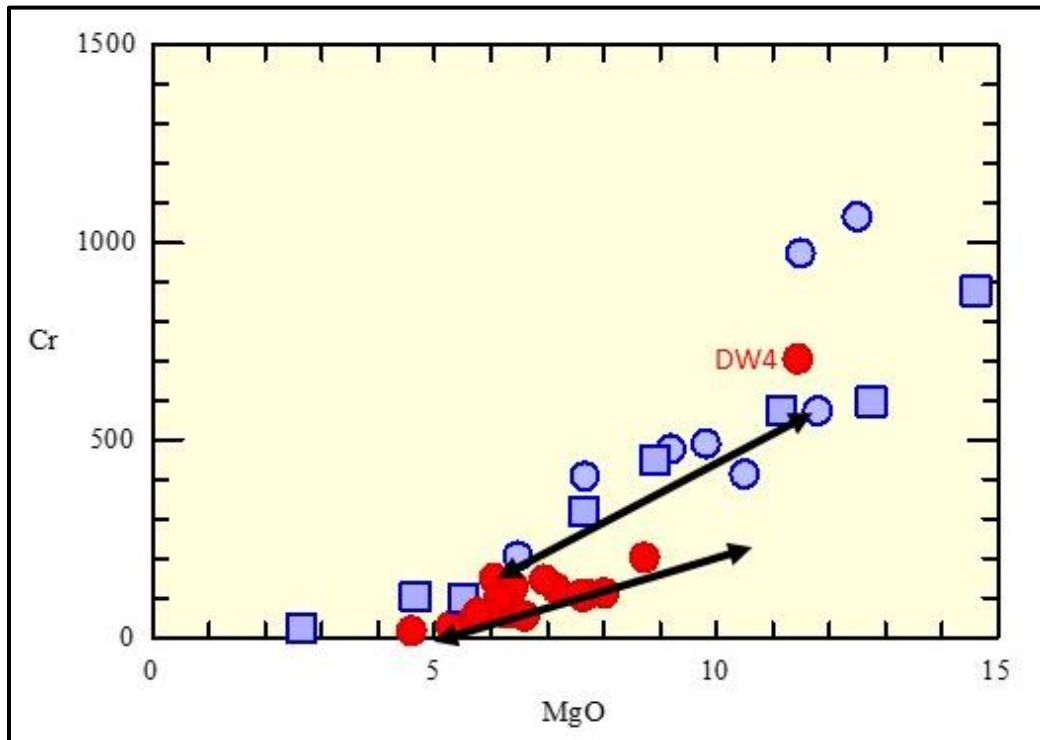


Figure 9-18 contains a series of variation diagrams which define important information about the three geochemical groups. The K_2O vs. Zr diagram illustrates the extreme enrichment of both Zr (an incompatible element) and K_2O (a felsic alkali element) in the Layden samples; either the parental magmas were alkaline or were contaminated by crustal material. Cr vs. Zr indicates the Cr depletion in the MGBN samples. On the V vs. Zr diagram the MGBN samples plot with low Zr and high V contents which is distinctly different from Layden and Intermediate samples. The higher V content may reflect more magnetite in the MGBN samples.

On a triangular plot of Co-Cu-Ni (Figure 9-19), two fields are defined. The first consists of MGBN and three Intermediate samples which plot with lower Ni contents. The second is a more Ni-rich group consisting of the Layden, remaining Intermediate and DW4 samples.

In early 2022, Wilton petrographically examined polished thin sections of drill core samples that he had collected in November 2021, along with polished thin sections from NAMC-Altius 2008 drill core. The polished thin sections were prepared at the Memorial University CREAT Network Lapidary facility. Wilton noted that that four samples of Layden breccia style mineralization contained very large, euhedral zircon crystals, including three from historical hole 08TB-14, and one from Churchill hole TB21-11.

Figure 9-18: Bivariate variation plots for MGBN, Layden intrusive, and Intermediate samples

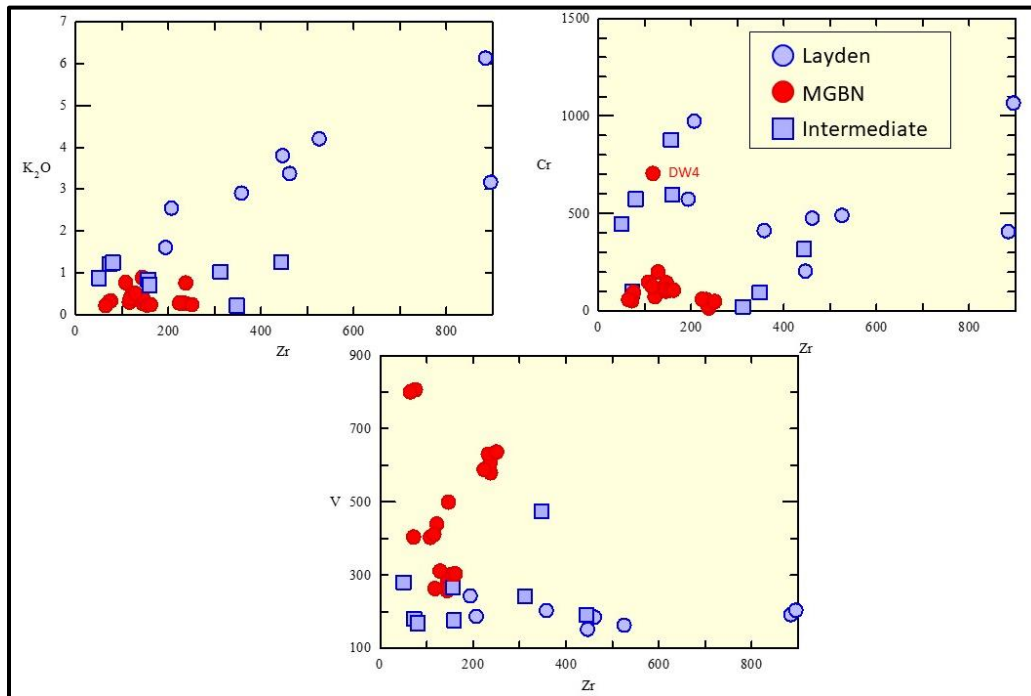
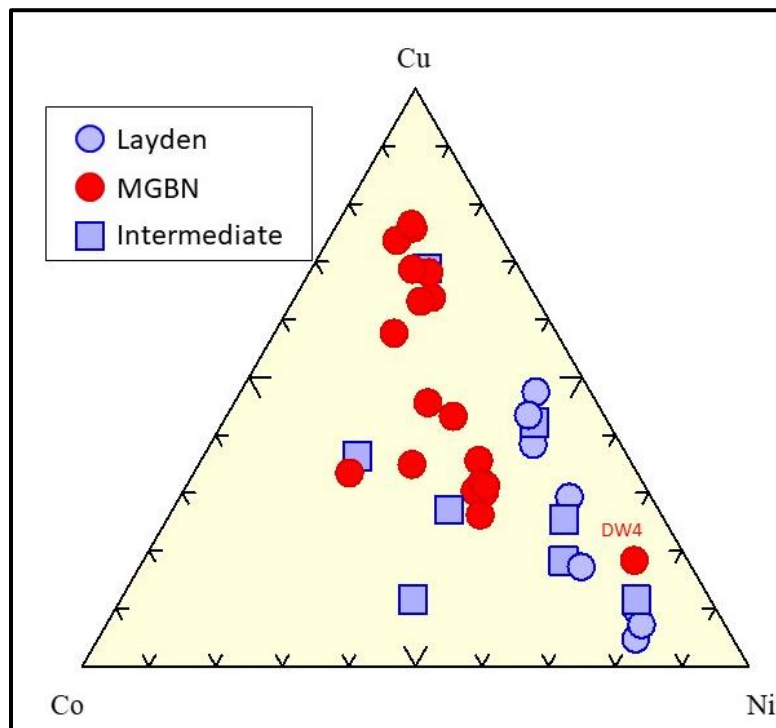


Figure 9-19: Co-Cu-Ni variation diagram for MGBN, Layden intrusive, and Intermediate samples



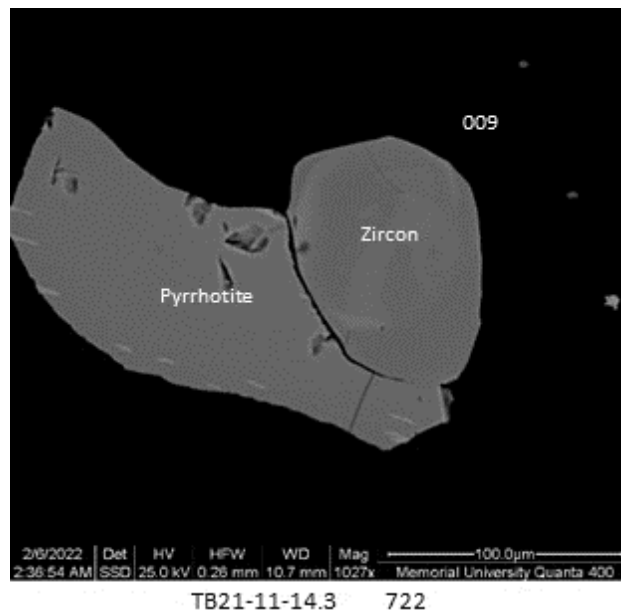
Polished thin sections of these four polished thin sections were analysed by Mineral Liberation Analyser-Scanning Electron Microprobe (MLA-SEM) in the CREAT Network Microanalytical Facility. These samples were from drill holes TR08-14 (135.7m, 138.2m 138.35m) and TB21-11-14.3 m. (Per Table 9-2). The samples were analysed on an **FEI Quanta 400** environmental SEM equipped with a **Bruker Xflash EDX Detector**. The SEM electron gun uses a W filament at an operating voltage of 25 kV and a beam current of 10 nA. The working distance between sample and detector is 12 mm. The MLA software associated with the SEM allows for quantitative evaluation of the abundance, association, size, and shape of minerals in an automated, systematic fashion.

During evaluation of the MLA-SEM data, Wilton noted that each section contained several euhedral zircons that appeared to be large enough for *in situ* U-Pb dating. Co-ordinates of specific zircons within each section were digitally recorded, and each zircon was imaged using brightness/contrast controls to evaluate possible elemental zonation (Figure 9-20).

In February 2022, Dr. Wilton and CREAT technician Dr. Markus Wälle analysed zircons from all four sections using the Laser Ablation – Inductively Coupled Plasma – Mass Spectrometer (LA-ICP-MS) at the CREAT labs. U-Pb isotopes were measured in zircons identified from the MLA-SEM using the MLA co-ordinates. The LA-ICP-MS laboratory consists of a Thermo-Scientific ELEMENT XR magnetic sector, single-collector ICP-MS coupled with a **Lambda Physik Compex Pro 110 ArF excimer GeoLas** laser ablation system operating at a wavelength of 193 nm and a pulse width of 20 ns. The laser ablation spot size was 30 µm in diameter.

Standard reference materials used for calibration and fractionation corrections were 91500 zircon, 02123 zircon and Plesovice zircon and Temora zircon. Ages and 2-sigma uncertainties were calculated from the corrected $^{207}\text{Pb}/^{206}\text{Pb}$, $^{207}\text{Pb}/^{235}\text{U}$ and $^{206}\text{Pb}/^{238}\text{U}$ ratios and data were reduced using Iolite 2.5 software (Paton et al. 2011). Concordia diagrams were produced from the Isoplot/Ex3.75macro program (Ludwig 2012). If the calculated $^{206}\text{Pb}/^{238}\text{U}$ and $^{207}\text{Pb}/^{235}\text{U}$ ages in a specific analysis differed by more than 10%, the analysis was rejected. There was very little “common Pb” detected in the zircons. Thus, common Pb corrections (after Anderson, 2002) were not conducted on the individual analyses.

Figure 9-20: SEM Back Scatter Electron (BSE) image of zircon in Layden sulphide-bearing breccia cement material

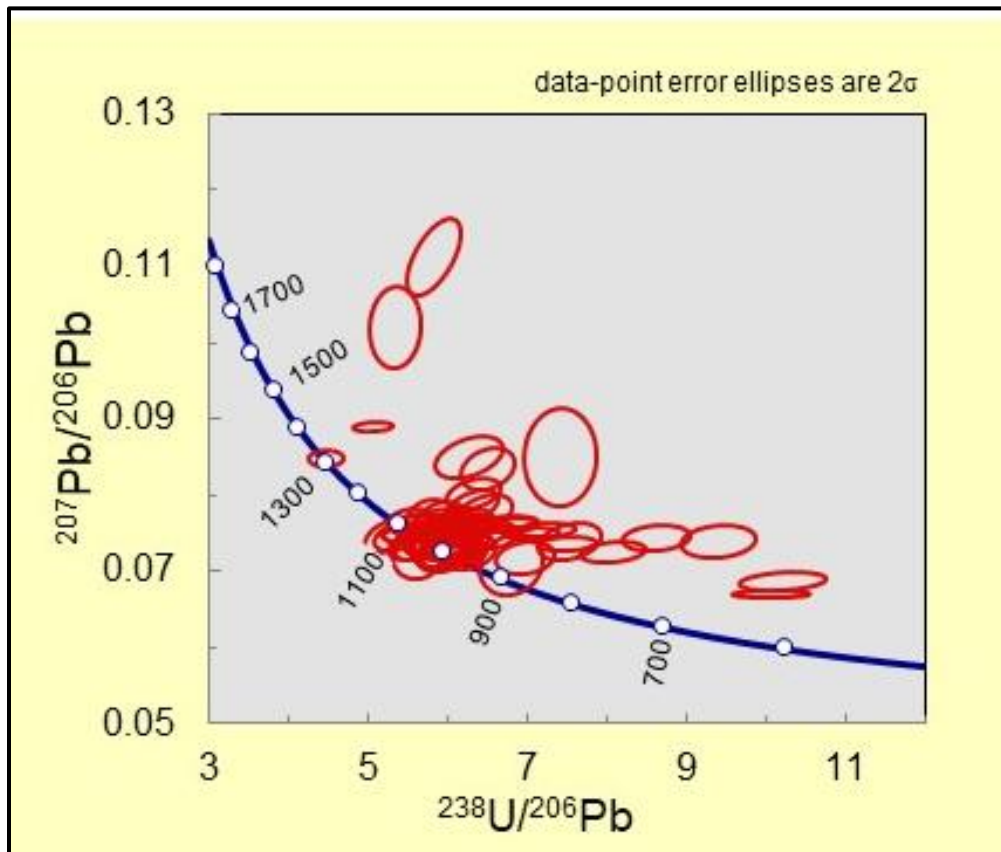


Wilton concluded that *in situ* U-Pb dates of euhedral zircons from the Layden breccia mineralization, Taylor Brook prospect, indicate that the intrusive rock crystallized at *ca.* 1012 Ma (Figure 9-21). He also assumed from intergrowth textures of zircon and sulphide that these two minerals crystallized penecontemporaneously, thus the sulphide must have likewise crystallized at *ca.* 1012 Ma.

Based on these age data, Churchill contracted Wilton to evaluate the age of gabbro-norite rocks which were intruded and brecciated by the Layden sulphide-bearing intrusive. Polished thin sections of four gabbro-norite samples from outcrop exposures (Figure 9-23) were mapped using the CREAT MLA-SEM facility. These samples were 517456 (“middle” gabbro-norite from hole TB21-01), 517466 (lower mafic dyke from hole TB21-04), 517470 (Humber gabbro-norite), and 517476 (gabbro dyke intruding the TBGC). Zircon crystals in these samples were found to be small (generally < 50 µm across) and thus would be difficult to use for *in situ* U-Pb age dating (Figure 9-16).

Noting the concerns about zircon crystal size, Wilton and Wälle analysed the largest zircon grains in each of the gabbro-norite samples using the CREAT LA-ICP-MS facility. The same techniques and standards were used as in the Layden pulse age-dating.

Figure 9-21: Tera-Wasserburg plot of U-Pb Isotope Analyses for Zircons Layden Sulphide-Bearing Breccia Cement Material



Calculated ages for the zircons were not very precise but were Silurian to Ordovician in age. They were definitely not Grenvillian as in the zircons from the Layden sulphide-bearing breccia cement material (Figure 9-23). Zircons in sample 517466 gave ages of 434-442.9 Ma, and those in samples were 405-408 Ma. The zircons in the other two samples were small and consequently the laser ablation beam may have sampled host rock material as well as the zircons. These samples both required common Pb corrections (after Anderson, 2002). Sample 517456 zircons ranged from 392-478 Ma and those in sample 517470 from 405-484 Ma (the upper and lower dates limits for both “dates” require further evaluation).

Figure 9-22: SEM Back Scatter Electron (BSE) Images of Zircon in Gabbronorite Samples 517466 and 517470; note scale bar to lower right

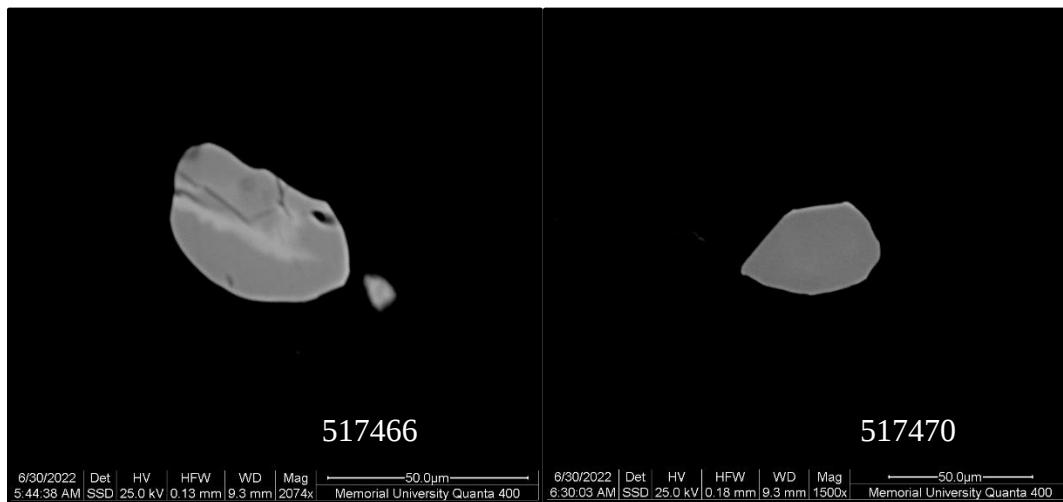
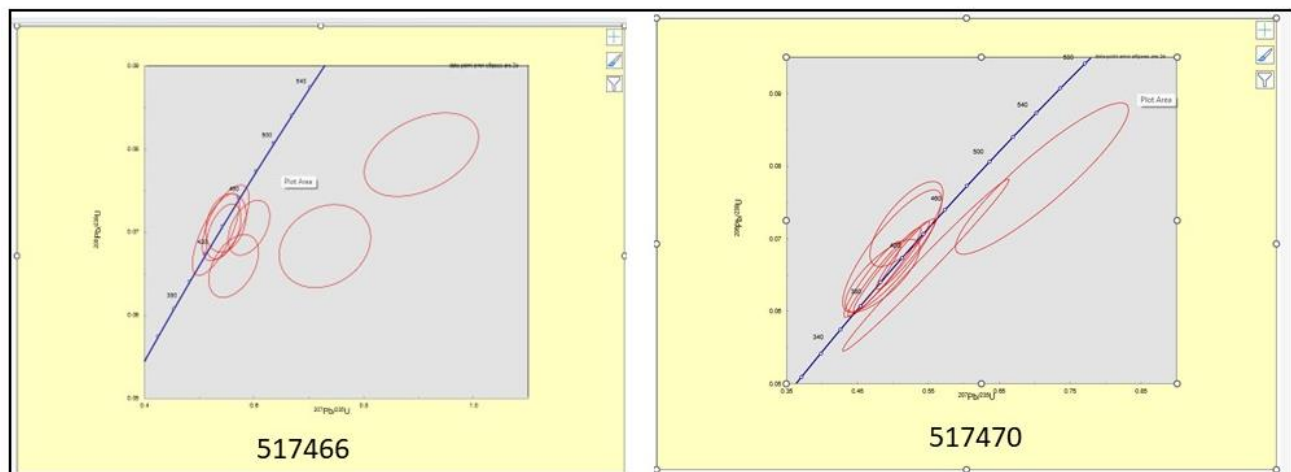


Figure 9-23: U-Pb Concordia Plots for Zircon Grains from Gabbronorite Samples 517466 and 517470



The Layden sulphide-bearing intrusive pulses brecciate the gabbronorite, thus must be younger. But the Grenvillian LA-ICP-MS U-Pb age dates for the Layden intrusive are much older than the suggested *ca.* Silurian age dates of the gabbronorite. This suggests that the zircons in the breccia are not orthomagmatic but were assimilated from older country rock.

Further *in situ* U-Pb dating has been conducted on zircon crystals from the underlying Grenville gneiss near the Layden Showing but calculation of the isotopic ratios and hence age dates has not been conducted yet. Morphologically the gneiss zircons resemble those in the Layden intrusives.

Although some of the petrography, geochemistry, and age-dating work is outstanding as of the date of this report, some preliminary conclusions can be drawn as follows:

- (i) Gabbonorites, mafic dykes, and the Taylor Brook Gabbro Complex (TBGC) in general have similar geochemical signatures.
- (ii) The Layden mineralized breccias have completely different trace element signatures compared to the gabbonorites and the TBGC, suggesting that they assimilated sufficient quantities of Grenvillian paragneiss to become contaminated. In particular, the K₂O and Zr enrichments in Layden suggest contamination from a felsic source similar to the Grenville gneiss.
- (iii) The gabbonorites, and mafic dykes are of the same relative “Silurian” age as the TBGC, but zircons in the Layden mineralized breccias have Grenvillian ages. This would imply that the Layden breccias formed from an older magma than MGBN, but the Layden intrusives brecciate the MGBN. Therefore, zircons in Layden must have been assimilated from Grenville gneiss.

10.0 DRILLING

Churchill carried out two small drilling programs at the Layden Magmatic Intrusive on Taylor Brook Property. The first was during Fall 2021 and the second during Summer 2022.

10.1 2021 Core Drilling

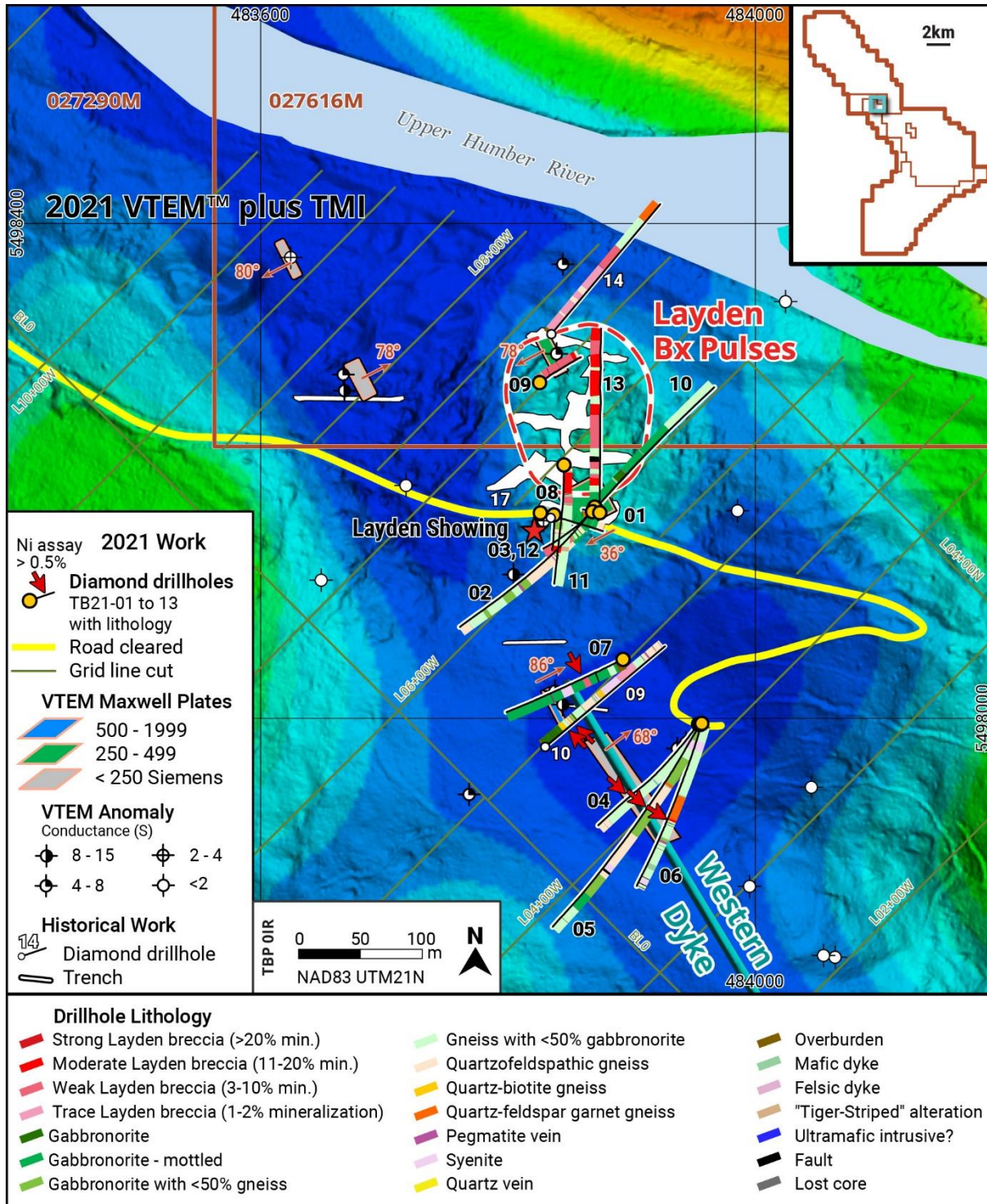
The 2021 core drilling program began on October 4th and was completed on November 14th, with thirteen NQ holes drilled with a cumulative length of 2,477m. Springdale Forest Products provided one Nodwell Tracked Mounted Duralite 500 Diamond Drill and one Nodwell track mounted rod carrier, along with an excavator. The 2021 holes were either positioned to geologically define the Layden Intrusive, or to test VTEM conductor plates, all of which have helped to establish a preliminary model for this portion of the overall property. The 2021 drilling is summarized in Table 10-1 and shown in plan view on Figure 10-1, including relevant historical holes within the Layden area.

Drilling, geological mapping, and geophysical surveys indicate that the mineralized outcrop at the original Layden Showing appears to be part of a much larger magmatic intrusive system that strikes east-southeast, plunging to the southeast, with

Table 10-1: 2021 Layden Area Core Drilling Summary

2021 Hole No.	Dip	Azimuth	EoH (m)	General Target Area	Specific Target	Assay Result	Additional Comment
TB21-01	-88	220	202	Layden Intrusive	Flat-Lying VTEM Conductor	no significant values ("nsv")*	zones of weak breccia mineralization from 110m to 190m
TB21-02	-45	225	202	Layden Intrusive	Geology	not sampled	mainly in footwall gneisses after thin Layden gabbro
TB21-03	-80	225	301	Layden Intrusive	Flat-Lying VTEM Conductor	nsv	zones of weak breccia mineralization from 165m to 286m
TB21-04	-45	220	160	Western Dyke	Subvertical VTEM Conductor	0.93% Ni, 0.04% Cu / 0.93m	narrow mineralized gabbroic dyke from 111.12m to 112.05m
TB21-05	-50	213	301	Western Dyke	Subvertical VTEM Conductor	0.57% Ni, 0.11% Cu / 2.22m	narrow mineralized gabbroic dyke from 117.72m to 119.94m
TB21-06	-46	197	199	Western Dyke	Subvertical VTEM Conductor	0.60% Ni, 0.13% Cu / 0.96m	narrow mineralized gabbroic dyke from 117.29m to 118.25m
TB21-07	-45	244	145	Western Dyke	Subvertical VTEM Conductor	1.26% Ni, 0.11% Cu / 1.05m	narrow mineralized gabbroic dyke from 50.03m to 51.08m
TB21-08	-50	105	82	Layden Intrusive	Layden Showing	not sampled	barren Layden gabbroic intersected
TB21-09	-72	58	131	Layden Intrusive	Flat-Lying VTEM Conductor	nsv	zones of very weak breccia mineralization from 5m to 124m
TB21-10	-45	45	201	Layden Intrusive	Geology	nsv	zones of weak breccia mineralization from 130.6m to 133.6m
TB21-11	-50	181	151	Layden Intrusive	Geology	nsv	zones of weak breccia mineralization from 5.8m to 50.6m
TB21-12	-80	180	158	Layden Intrusive	Geology	nsv	zones of weak breccia mineralization from 143.7m to 158m
TB21-13	-53	360	247	Layden Intrusive	Geology	nsv	zones of weak breccia mineralization from 38m to 247m
* CRI defines nsv as <0.20% Ni, <0.20% Cu, <0.01% Co							
Historical Holes							
08TB-09	-50	50	197	Western Dyke	Subvertical EM Conductor	1.71% Ni, 0.13% Cu, 0.03% Co / 4.15m	narrow mineralized gabbroic dyke from 42m to 46.15m
08TB-10	-70	50	149	Western Dyke	Subvertical EM Conductor	1.35% Ni, 0.32% Cu, 0.02% Co / 1.45m	narrow mineralized gabbroic dyke from 95.95m to 97.4m
08TB-14	-50	40	213.7	Layden Intrusive	Upper Layden Conductor	0.34% Ni, 0.14% Cu / 1.0m	mineralized Layden gabbroic from 132.75m to 133.75m
08TB-17	-90	0	10.6	Layden Intrusive	Layden Showing	1.63% Ni, 0.36% Cu, 0.03% Co / 4.15m	Vertical hole into Layden Showing breccia outcrop

Figure 10-1: 2021 Drilling Plan with VTEM TMI and Maxwell Conductor Plates



significant thicknesses based on drill intersections. The Layden magmatic system is hosted by a discrete, magnetic, gabbroic to pyroxenitic (field classifications) intrusion within

basement gneisses in which the Ni-Cu mineralization takes the form of pods, thin horizons, and blebs of pyrrhotite, pentlandite and chalcopyrite which actually brecciate the gabbro-norite. The sulphide-cemented breccia structures have been intersected in several locations at depths from surface to ~-200m over ~100m along the overall gabbroic intrusive. The mineralized breccia structures appear to range from 5-15m wide with sulphide contents of up to 40% locally over 10-20cm with several separate zones of breccia within the Layden intrusion.

10.2 2022 Core Drilling

The 2022 core drilling program began on May 23rd with the extension of hole TB21-01 and was completed on September 23rd with hole TB22-33, for a total of twenty new NQ holes, and five extensions, collectively coring 5,888m. Major's Contracting Limited of Deer Lake, NL, provided one Tracked Mounted Zinex A5 Diamond Drill, along with an excavator. Most holes were positioned to define the extent and internal geology of the Layden Intrusive and to intersect BHEM conductor plates of interest. An initial cluster of five short holes (TB22-14 to -18) were targeted on the cluster of very small, high conductance plates beneath, and to the south, of the Layden Showing. Others were targeted on newly identified BHEM conductor plates and, as per Figure 10-2, a cluster of larger weak plates in the northern portion of the Layden Intrusive were targeted with six drill holes coring an extensive network of breccia mineralization.

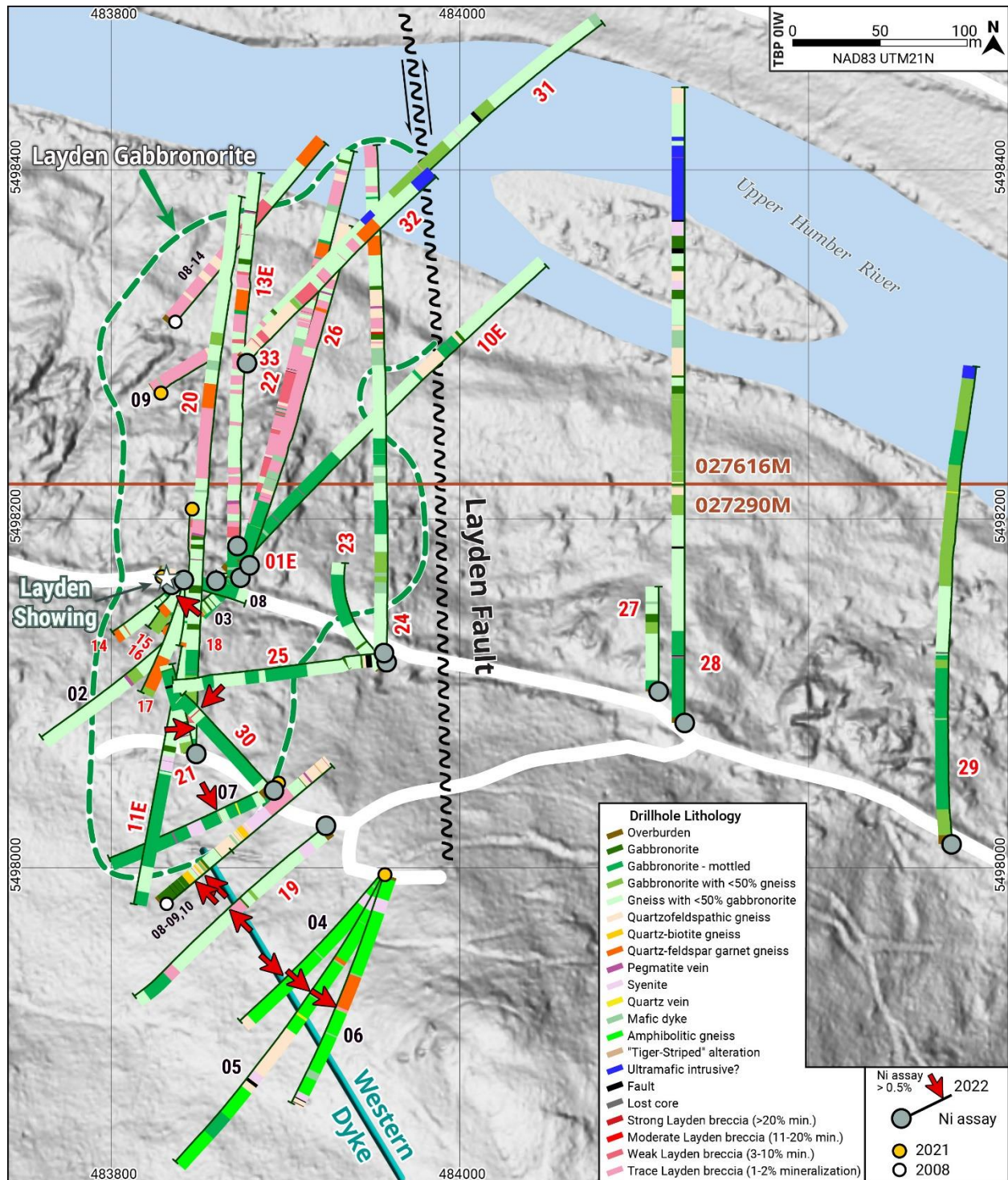
The drilling has shown this area to be a zone of multiple mineralized Layden breccia pulses which appear to be truncated by a late fault zone under the Upper Humber River which was very difficult to core through. Assay samples were sent to Eastern Analytical in Springdale, and results have been received, per Table 10-2 below.

Table 10-2: 2022 Core Drilling Summary

Hole Name	UTM X	UTM Y	Elevation	Dip	Azimuth	Target	Metres Drilled	EOH (m)	Mineralization
TB21-01E	483870	5498170	227.86	-88	220	Extended for BHEM Surveying	51	253	not sampled
TB21-10E	483868	5498167	229.00	-45	45	Extended for BHEM Surveying	151	352	not sampled
TB21-11E	483845	5498205	222.13	-50	181	Extended for BHEM Surveying	132	349	not sampled
TB21-13E	483874	5498166	230.92	-53	360	Extended for BHEM Surveying	198	379	not sampled
TB22-14	483840	5498165	227.78	-63	229	BHEM Plate 11-1	109	109	missed plate, not sampled
TB22-15	483840	5498165	229.40	-45	213	BHEM Plate 8-1	46	46	1.65%Ni, 0.41%Cu, 0.03%Co / 2.35m from 5.2m 2.79%Ni, 0.54%Cu, 0.05%Co / 4.44m from 9.58m
TB22-16	483841	5498167	229.11	-82	220	BHEM Plate 12-1	166	166.3	missed plate, not sampled
TB22-17	483842	5498165	230.60	-77	197	BHEM Plate 12-1	202	202	weak Layden Bx / 48m from 136.45m, locally anomalous in Ni, Cu and Co
TB22-18	483842	5498165	230.43	-77.5	180	BHEM Plate 3-2	151	151	missed plate, not sampled
TB22-19	483923	5498024	263.05	-48	231	BHEM Plate 5-1	214	214	2.43%Ni, 0.08%Cu, 0.04%Co / 0.55m from 106m
TB22-20	483849	5498065	252.77	-45	0	Geology - N-S transect Layden Intrusive	451	451	1.04%Ni, 0.24%Cu, 0.02%Co / 7.55m from 24.6m
TB22-21	483847	5498066	252.77	-65	350	BHEM Plate 11-2	121	121	missed plate, not sampled
TB22-22	483880	5498172	224.74	-51	17	Northern BHEM Plates	400	400	trace to weak Layden Bx / 368m from 32m, locally anomalous in Ni, Cu and Co
TB22-23	483950	5498100	231.19	-70	360	Geology - SE Margin Layden Intrusive	193	193	not sampled
TB22-24	483958	5498118	231.19	-45	0	Northern BHEM Plates	433	433	trace to moderate Layden Bx / 14m from 278.76m, locally anomalous in Ni, Cu & Co
TB22-25	483950	5498100	231.19	-45	265	Geology - SE Layden Intrusive	175	175	not sampled
TB22-26	483879	5498173	226.32	-60	20	Northern BHEM Plates	345	418	not sampled
TB22-27	484114	5498101	230.90	-45	0	Geology - Layden Extension to the East	85	85	not sampled
TB22-28	484129	5498083	230.90	-45	0	Geology - Layden Extension to the East	516	516	not sampled
TB22-29	484292	5498010	219.55	-50	0	Geology - Layden Extension to the East	427	427	not sampled
TB22-30	483892	5498047	255.48	-60	320	BHEM Plate 25-1	151	151	1.79%Ni, 0.24%Cu, 0.04% Co / 1.46m from 124.57m
TB22-31	483872	5498289	204.05	-45	45	Northern BHEM Plates	350	350	not sampled
TB22-32	483872	5498289	204.05	-65	45	Northern BHEM Plates	350	350	weak to moderate Layden Bx / 150m from 4.86m, locally highly anomalous in Co (0.06%), anomalous in Ni & Cu
TB22-33	483872	5498289	204.05	-90	0	Northern BHEM Plates	322	322	not sampled
							5739		
CRI defines anomalous as >0.2%Ni, >0.1%Cu and >0.01%Co									

Significant results in holes TB22-15, -19, -20 and -30 are listed in the table, and borehole locations are shown on accompanying Figure 14. Total PGE's and gold (Pt + Pd + Au) did not exceed 500ppb in any sample. Holes TB22-14, -16, -18 and -21 did not encounter any significant sulphide mineralization and thus were not sampled. Holes TB22-17 and -22 to 26 drilled through long intervals of mineralized nickel-copper-cobalt intrusive breccias with assays reaching anomalous thresholds (>0.2% Ni, >0.1% Cu and >0.01% Co) despite heavy dilution in the sulphide pulses by entrained gabbro-norite and gneissic basement clasts. Holes 31-33 were designed to better delineate the breccia zones and sample as deeply as practicable.

Figure 10-2: Plan Map of 2022 Core Drilling



11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

The authors have carefully examined all assessment reports from Altius, Altius-Billiton J-V, and Altius-Northern Abitibi J-V to ensure that complete original assay and analytical reports have been included. Table 11-1 provides a summary of the historical sampling carried out, analytical methods used, and analytical laboratory for the various exploration programs carried out on the property.

Table 11-1: Taylor Brook Project Sampling Summary

Year	Organization	Exploration Activities	Sampling	Analytical Method	Facility
1999-2000	Altius Minerals/Billiton	Mapping, prospecting, rock geochemistry, grid establishment, mapping, trenching, geophysics	17 Layden showing rock grab samples	Au, Pt, Pd - Fire Assay Cu, Ni, Co - wet chemical assay S - XRF on fused disc	XRAL Laboratories, Toronto
			16 property-wide rock grab samples	Au - Fire assay + 33 element ICP scan/aqua regia digestion	XRAL Laboratories, Toronto
			32 whole rock samples	Major/select trace elements - XRF spec. + 33 element ICP scan	XRAL Laboratories, Toronto
2000	Altius Minerals/Billiton	Grid infill line establishment, geophysics, trenching, petrography	14 trench rock grab samples	Au, Pt, Pd - Fire Assay Cu, Ni, Co - wet chemical assay S - XRF on fused disc	XRAL Laboratories, Toronto
			14 whole rock samples	Major/select trace elements - XRF spec. + 33 element ICP scan	XRAL Laboratories, Toronto
2007	Northern Abitibi Mining Corp./Altius	Trenching, soil sampling, Beep Mat EM surveying	60 rock samples	Au - Fire assay + 33 element ICP scan/aqua regia digestion	Eastern Analytical, Springdale
			177 soil samples	Au - Fire assay + 33 element ICP scan/aqua regia digestion	Eastern Analytical, Springdale
2007-2008	Northern Abitibi Mining Corp./Altius	Diamond drilling and borehole EM surveying	156 core samples	Au - Fire assay + 33 element ICP scan/aqua regia digestion	Eastern Analytical, Springdale
			38 core samples	38-element fusion ICP-MS and whole rock XRF	ALS Chemex, North Vancouver
2011	Altius Minerals	Prospecting, soil sampling	32 lithogeochem rock samples	Au, Pt, Pd - 50g Fire Assay with ICP-AES finish + 51 element ICP-MS with AES + 48 element ICP-MS with AES	ALS Chemex, North Vancouver
			174 soil samples	Au, Pt, Pd - 50g Fire Assay with ICP-AES finish + 51 element ICP-MS with AES + 48 element ICP-MS with AES	ALS Chemex, North Vancouver
2012	Altius Minerals	Trenching, mapping, sampling	190 lithogeochem rock samples	Au - fire assay with AA finish + 30 element ICP-OES	Eastern Analytical, Springdale
	Laboratory	Accreditation			
	Eastern Analytical	ISO 17025 Accredited Assay Laboratory			
	XRAL Laboratories	ISO 17025 Accredited Assay Laboratory - now part of SGS			
	ALS Minerals	ISO 17025 Accredited Assay Laboratory			
	Analytical Abbreviation	Explanation			
	FA - fire assay AA - atomic absorption	Fire assay is a lead-collection/fusion, for refinement of total sub-sample into a silver dore bead. The silver bead is dissolved in an aqua-regia digestion and analysis by atomic absorption (AA).			
	ICP-MS	Inductively Coupled Plasma - Mass Spectrometry			
	ICP-OES	Inductively Coupled Plasma - Optical Emission Spectrometry 200mg subsample is totally dissolved in four acids and analysed by ICP-OES.			
	ICP-AES	same as ICP-OES			

12.0 DATA VERIFICATION

12.1 Review of Supporting Analytical Data, Documents and Reports

Churchill provided the authors with copies of all copies of all internal documents, such as technical presentations, analytical data from 2021 and 2022 work, etc. that have been used for the identification of exploration targets on the Property. The authors supplemented the historical data compilations provided through online searching of assessment reporting in the DIET system. In particular, the assessment and government geological mapping reports, referenced throughout this report, were accessed, and examined.

Reference document checking by the authors indicates that, in all instances considered, the digital and written records supplied by Churchill accurately reflect the contents of referenced source documents.

12.2 Review of Geotech VTEM Helicopter-Borne Geophysical Data

The Geotech VTEM survey conducted on the Taylor Brook and Taylor Brook South properties used the current generation “VTEM Plus” system, which is a state of the art Magnetic and Time Domain Electromagnetic geophysical survey system. The preliminary data for the surveys have been Quality Control checked by both Geotech and Jeremy S. Brett, M.Sc., P.Geo. during survey acquisition and found to meet or exceed industry standards for airborne geophysical survey data. These data at, the 100m line spacing used, are fully appropriate as a first pass for Ni-Cu-PGE exploration.

12.3 Review of SHA Heli-GT Helicopter-Borne Geophysical Data

The Scott Hogg & Associates Heli-GT survey conducted on the Taylor Brook Project Licenses properties used the current generation Heli-GT helicopter-borne, three-axis, state of the art Magnetic Gradiometer geophysical survey system. The preliminary data for the surveys have been Quality Control checked by both SHA and Jeremy Brett data during survey acquisition and found to meet or exceed industry standards for airborne geophysical survey data. These data at, the 50m line spacing used, are fully appropriate for Ni-Cu-PGE exploration at Taylor Brook.

12.4 Review of TDEM and Borehole EM Geophysical Data

The ground and borehole EM surveys conducted on the Taylor Brook Project Licenses properties by Eastern Geophysics used the Crone Pulse EM system. Preliminary data were supplied by Eastern Geophysics to Crone geophysicist Eric Meunier, M.Sc., P.Geo, and Jeremy Brett. Data derived during survey acquisition and were found to meet or exceed industry standards. Final interpretation and Maxwell plate modelling was carried out by Meunier.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

No mineral processing or metallurgical testing studies were completed by earlier operators (Altius) in the past, or by Churchill with respect to the Property. There are no historical data on mineral processing and metallurgical testing for any of the ground covered in this report.

14.0 ADJACENT PROPERTIES

Parts of the Taylor Brook Gabbro Complex not licensed by Churchill are now held by Fishhawk Gold Corp. of St. John's, NL, and are directly tied on to the eastern boundary of the Taylor Brook Project licenses.

There are two small adjacent properties to the original Taylor Brook Property: a small 15-claim on Licence 026955M held by Gerald Russell and an even smaller 4-claim on Licence 027616M held by Cameron Hicks. Both individuals are independent prospectors, and as mentioned previously, Churchill has optioned their properties.

An internal 4 claim license, 027048M, to Churchill's 032488M, is held by Nathaniel Noel. Churchill sought and received permission to overfly Mr. Noel's license with airborne and LiDAR surveys. The data from those surveys were provided to him.

15.0 OTHER RELEVANT DATA AND INFORMATION

The authors recommend that Churchill maintain their environmental strategy developed in 2021 including documentation of baseline conditions, as the project advances, to identify potential and likely impacts a mining project will have on the environment.

The Mineral Lands Division of the NL Department of Industry, Energy, and Technology has a clear permitting regime for exploration activities, and guidelines that outline specific requirements and recommendations for work in the province including:

1. Basic Documentation of exploration activities and the promotion of best practices
2. Cutting of Trees for Access or Site Clearing purposes
3. Vehicles and Equipment Usage on Forested Land
4. Exploration Access Trails
5. Trench and Test Pit Preparation
6. Trench Rehabilitation
7. Drill Site Preparation
8. Active Drilling
9. Drill Site Rehabilitation
10. Uranium Exploration
11. Camps and Laydown Areas
12. Fuel and Oil Storage and Handling
13. Fuel and Oil Spills and Clean-up
14. Erosion and Sediment Control

The Upper Humber River flows through the licenses of the Taylor Brook Project and is a Class 6 Scheduled Salmon River as designated by the Canada Department of Fisheries and Oceans (No. 150). As such exploration activities must follow the following additional conditions when seeking permits for exploration activities:

- i) Section 28 of the Environmental Assessment Regulations specifies that any ‘undertaking’ within 200 metres of a scheduled salmon river must be registered for Environmental Assessment.
- ii) The Department of Industry, Energy, and Technology only refer work permit applications that result in ground disturbance (e.g., drilling, trenching, bulk sampling, camps, road/trail construction, etc.) to the EA Division for comments, so only those types of projects would require EA registration.

- iii) Any other work that does not create ground disturbance (prospecting, soil/till surveys, ground geophysics, airborne surveys) will not be referred to the EA Division, and instead, typical conditions of approval will apply based on the land uses in the area (e.g., obtain permits from Forestry, wildlife considerations, silviculture considerations, etc.).
- iv) Treating any other rivers or tributaries as such would be at the discretion of the Environmental Assessment Division scientists.
- v) The Department of Industry, Energy, and Technology recommends that for any work near a scheduled salmon river, applications for work must assure that the work won't result in ground disturbance separately from work that will create ground disturbance. This will allow the low/no impact work to proceed if other aspects require more time for approvals.

16.0 MINERAL RESOURCES ESTIMATES

No mineral resource or mineral reserve estimates, prepared in accordance with NI 43-101 and the CIM Definition Standards, have been undertaken by Churchill for any known mineralization within the Taylor Brook Project area. Additionally, the authors are not aware of any historic mineral resource or reserve estimates that apply to any mineralization within the Taylor Brook Project area.

17.0 ENVIRONMENTAL CONSIDERATIONS

There are no environmental considerations for this Project at its current stage.

18.0 INTERPRETATION AND CONCLUSIONS

The main mineral exploration target identified to date on the Taylor Brook Project is the magmatic sulphide Ni-Cu±Co±PGE mineralization seen at the Layden gabbro-norite plug, and interpreted to have originated within the ~10km long Layden Intrusive Trend. This mineralization is hosted by olivine-biotite bearing intrusive pulses of noritic composition, that brecciate both Grenville gneiss and the Silurian (?) Layden Gabbro-norites, and is probably associated with the Taylor Brook Gabbro Complex, with the highly magnetic South Lobe thought to be a possible source.

Geochemically, the Layden Breccia intrusive pulses appear to have been a highly contaminated mafic intrusive; the contaminant(s) being Zr and K₂O-rich crustal material such as the regional Grenvillian gneiss. The Layden Breccia Intrusive pulses produced massive and net-textured sulphide lenses in the southern portion of the Layden Gabbro-norite, and sulphide-cemented breccias through its northern portion. Churchill's drilling and mapping indicate that the Layden Gabbro-norite extends over an area of at least 200m x 400m x 300m deep, with deformation primarily seen as tight isoclinal folding inclined ~60 degrees to the east, ie. Towards the Taylor Brook Gabbro Complex.

Complicating the picture is the sinistral Layden Fault with 100-200m of left-lateral offset, such that to date Churchill has not yet intersected the mineralization on the east side of this structure.

The Layden intrusive breccias have a weak to moderate EM conductor expression (but are strongly magnetic), whereas the more massive sulphides are seen as strong, but thus far small, conductor plates in the Layden Intrusive area. The Layden gabbro-norite is moderately magnetic compared to the breccia pulses. Overall, geophysical expressions and geological modelling suggest that the intrusive, at this location, has a more "pipe-like" structure than classic chonolith intrusive form.

The sulphide mineralization consists of pyrrhotite with chalcopyrite and lesser pentlandite. The pentlandite occurs as small masses associated with pyrrhotite and as "flame-like" exsolution lamellae in pyrrhotite. The sulphides range from disseminated distributions in the Layden intrusive through semi-massive to massive zones, which show up as stronger but thus far small EM conductors due to the deformation folding. Sulphide also cements the extensive breccia units.

Importantly the host Layden Intrusive (conduit or chonolithic?) Trend appears to be relatively shallow and more or less horizontal, and has been shown by geophysics to extend for ~10km along strike to the NNW and SSE from the Layden Showing. 2022 petrographic and lithogeochemical sampling have positively identified the gabbro-gabbro-norite intrusives over ~ 6km from ~2km northwest of Layden with sample DW-26 to ~4km south-southeast of Layden with sample DW-27 (Figures 9-12 and 9-13).

Churchill attained several high-grade, shallow intersections during 2022, including these listed in Table 18-1, which exceeded 2021 and historical sampling assays (Tables 10-1 and 10-2):

The encouraging grades and nickel tenors encountered at both Layden and the Western Dyke strongly suggest that massive sulphide accumulations are present. It is thought that the Western

Dyke may represent a feeder to the Layden Intrusive, as they appear to merge based on the 2022 drilling and mapping which confirmed a southern extension to the host gabbro-norite body.

Table 18-1: Taylor Brook Project Selected High-grade Sampling Summary

Hole/Channel Number	Meterage From (m)	Meterage To (m)	Length (m)	Ni %	Cu %	Co %	S %	Target Area	Specific Target
TB22-15	5.2	7.55	2.35	1.65	0.41	0.026	4.30	Layden Intrusive	BHEM conductor plate
TB22-15	9.58	14.02	4.44	2.79	0.54	0.046	7.80	Layden Intrusive	BHEM conductor plate
including	9.58	11.35	1.77	4.49	1.24	0.078	12.59	Layden Intrusive	BHEM conductor plate
TB22-19	106	106.55	0.55	2.43	0.08	0.044	6.53	Western Dyke	BHEM conductor plate
TB22-20	24.6	31.5	7.55	1.04	0.24	0.016	2.73	Layden Intrusive	BHEM conductor plate
including	24.95	26.45	1.5	1.47	0.65	0.024	4.32	Layden Intrusive	BHEM conductor plate
and	29.8	31.5	1.7	3.04	0.36	0.044	7.47	Layden Intrusive	BHEM conductor plate
Channel 33	0	1.54	1.54	3.23	0.75	0.061	11.86	Layden Showing	Washed outcrop
Channel 34	0	1.7	1.7	1.76	0.52	0.047	7.95	Layden Showing	Washed outcrop

To conclude geologically:

1. The intimate association of sulphide with the Layden pulses suggest that the sulphide separated from the parental mafic to ultramafic magma in manner typical of orthomagmatic nickel sulphide deposits (e.g., Voisey's Bay, Eagle, etc.).
2. The sulphides seem to be Ni, Cu and Co-enriched and the presence of pentlandite as the dominant nickel-bearing sulphide suggests that economically exploitable concentrations of at least Ni may be associated with the Layden pulse magmatism (i.e., Ni is not present solely as a trace element in pyrrhotite).
3. The similar relative ages of the Layden and Taylor Brook gabbroic intrusions does suggest a relationship between the two, with the highly magnetic western portion of the South Lobe of the TBGC, particularly intriguing especially given the coincident gravity anomaly.
4. The form of the original Layden intrusive pulses has been obscured by deformation but in its current form, the pulses appear to form a pipe-like structure plunging at ~60 degrees to the east until being offset by the Layden Fault. As pipe-like bodies, the Layden pulses may be feeders from a deeper intrusion. If the bodies were originally pipes, then more significant concentrations of sulphide may be present at depth as part of a deeper magmatic system.
5. The exploration rationale for this property should be based on the model that the Layden pulses are conduits of sulphide-bearing magmas. As such the conduits themselves, or underlying magmatic intrusions along the Layden Intrusive Trend from which the conduits originated, should be the primary exploration targets.

18.1 Geophysical Analysis of the Layden Intrusive Trend and the Known Gabbros

Figures 18-1a and 18-1b present regional scale interpretations of the Geotech magnetic and resistivity data by Jeremy Brett. The position of the Layden Gabbronorite, the Humber Gabbronorite, and the TBS-1 Soil Anomaly along the Layden Intrusive Trend are shown for spatial context.

The large-scale features controlling their emplacement, ie. the ~N-S Upper Humber Valley Fault, several dilation zones within sigmoidal structures adjacent to the Taylor Brook Gabbro Complex, and the two prominent southeasterly trending NW-SE shear zones that cross the property are readily apparent in the magnetic image, Figure 18-1a.

The resistivity interpretation, Figure 18-1b, emphasizes the ductile zones along the Upper Humber Valley Fault that host the Layden Intrusive Trend, as well as the set of southeasterly trending fault/shear zones that cross the property. The southernmost shear zone of the NW-SE set appears to control structure for the course change of the Upper Humber River to southeast, before it follows the more N-S Upper Humber River Fault trend. Sinistral displacement along this shear may explain the location of the Humber Gabbronorite ~1.2km to the west of the Layden Gabbronorite and magmatic trend.

The middle of these southeasterly shears appears to continue between the lobes of the Taylor Brook Gabbro and into the South Lobe, potentially influencing the present form of the TBGC. The site of the Layden Gabbronorite Intrusive appears to be at the intersection of this middle southeasterly trending shear zone with the Upper Humber River Fault Zone. The upper (or more northerly) NW-SE trending shear zone appears to abut the northern lobe of the Taylor Brook Gabbro, but survey limits do not allow determination that it actually reaches the interior. The margin of the north lobe does appear to be disrupted where the shear intersects it, as evidenced from Figure 18-1a, the magnetic image.

Figures 18-2a and 18-2b are inversions of the Heli-GT magnetics and the VTEM resistivity data for the project, respectively. The magnetic inversions (Figure 18-2a) emphasize the linear nature of the Layden Intrusive Trend with depth, suggesting that the known mineralization at Layden is localized along the western side of the trend (ie. away from the Taylor Brook Gabbro Complex). The emplacement of Layden Gabbronorite at the intersection of the two major structures is also emphasized by the inversions (ie. the NW-SE fault zone and the Upper Humber Fault).

In the -400m to -600m depth slices, that the Layden Intrusive Trend appears to have evolved into several magnetic nodes which may represent deeper pools of magmatic material. These include one large node just to south of the Layden Gabbronorite, and another just to the north. The gap between the two nodes may have localized the somewhat offset position of the Layden gabbronorite and breccia pulses, to just west of the Layden Intrusive Trend.

Figure 18-1a: Regional and Project TMI Interpretation of the Taylor Brook Project Area

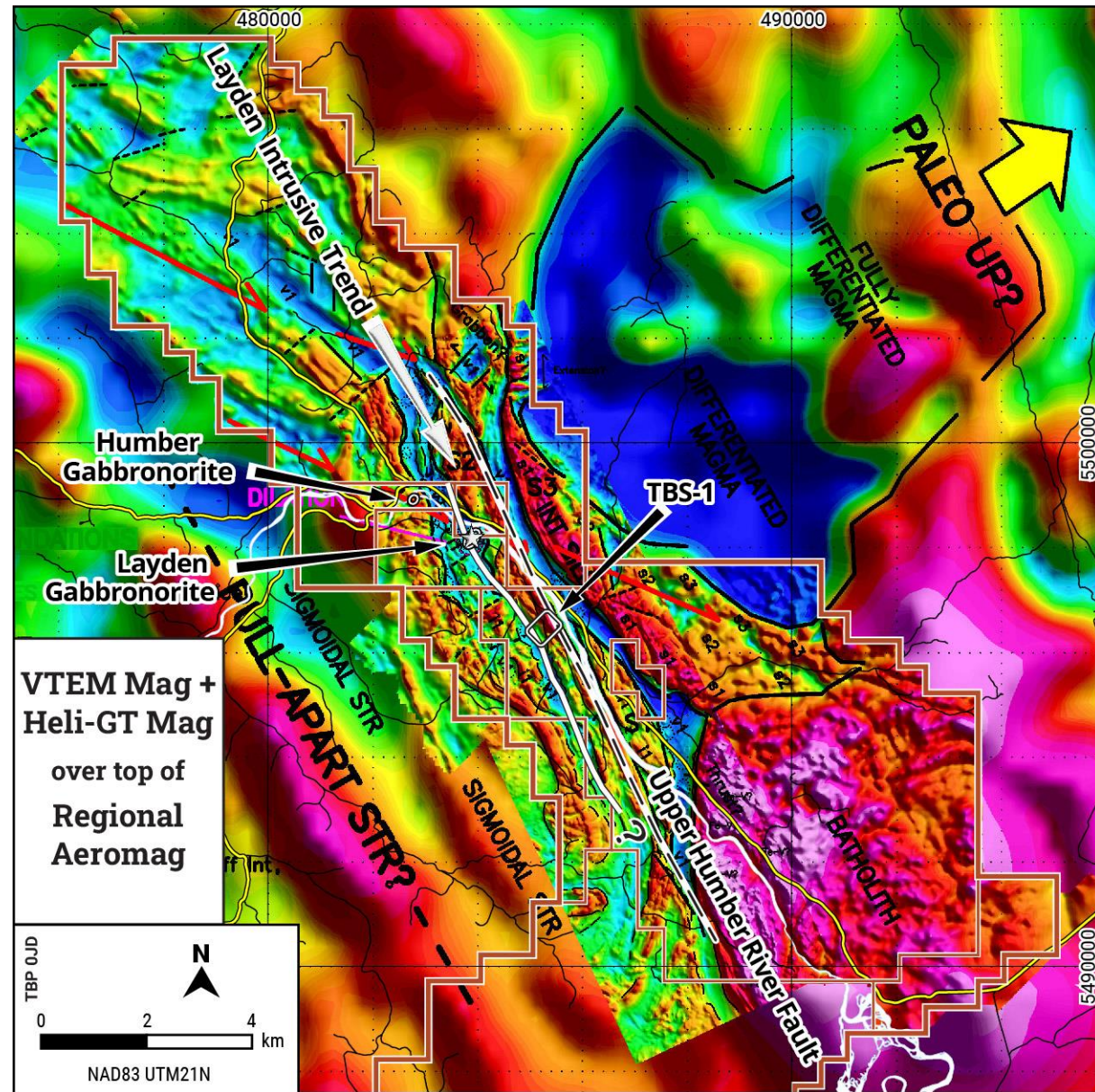


Figure 18-1b: VTEM Resistivity Interpretation of the Taylor Brook Project Area

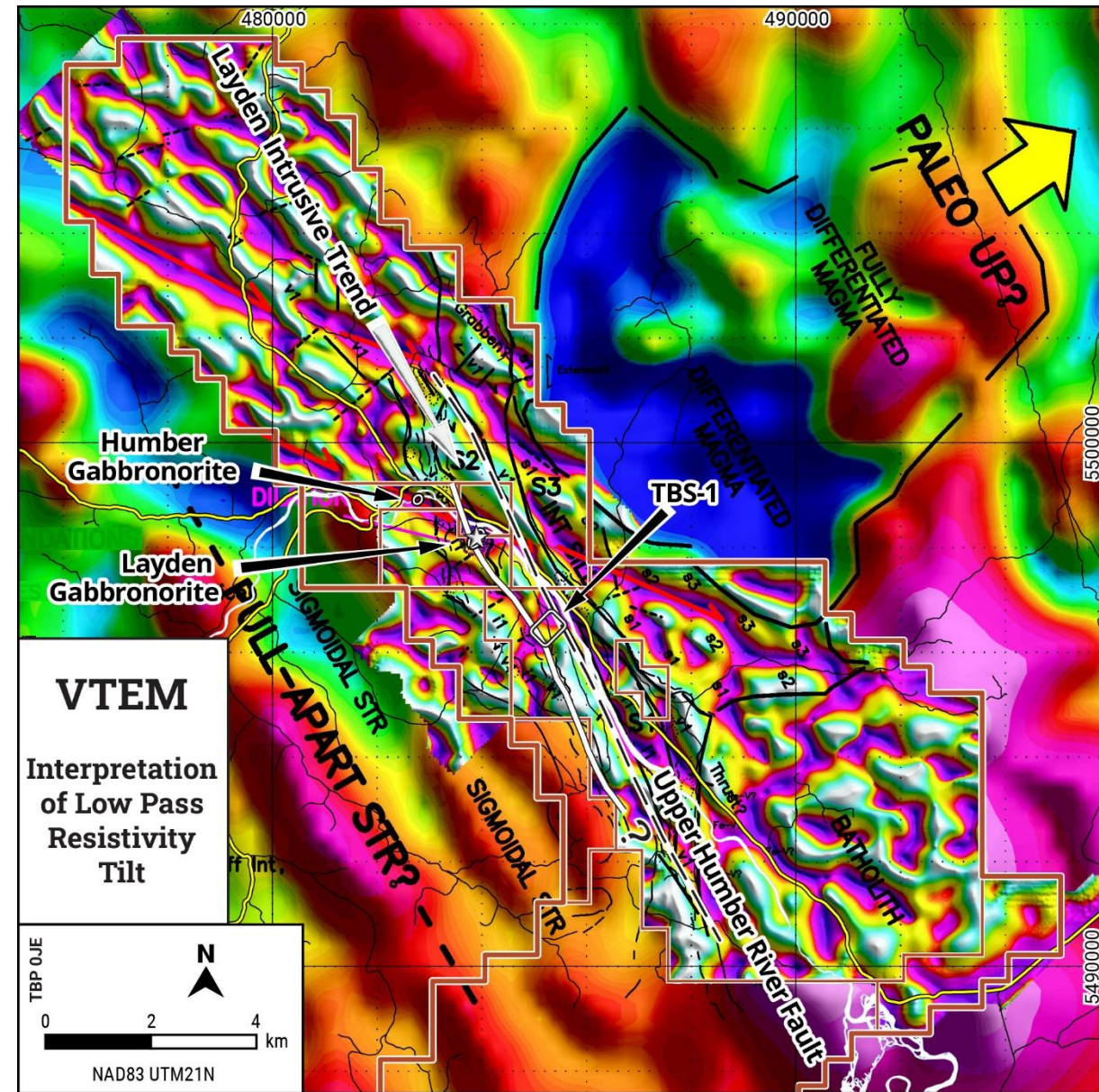


Figure 18-2a: Inverted Heli-GT Magnetic Depth Slices of the Taylor Brook Project Area

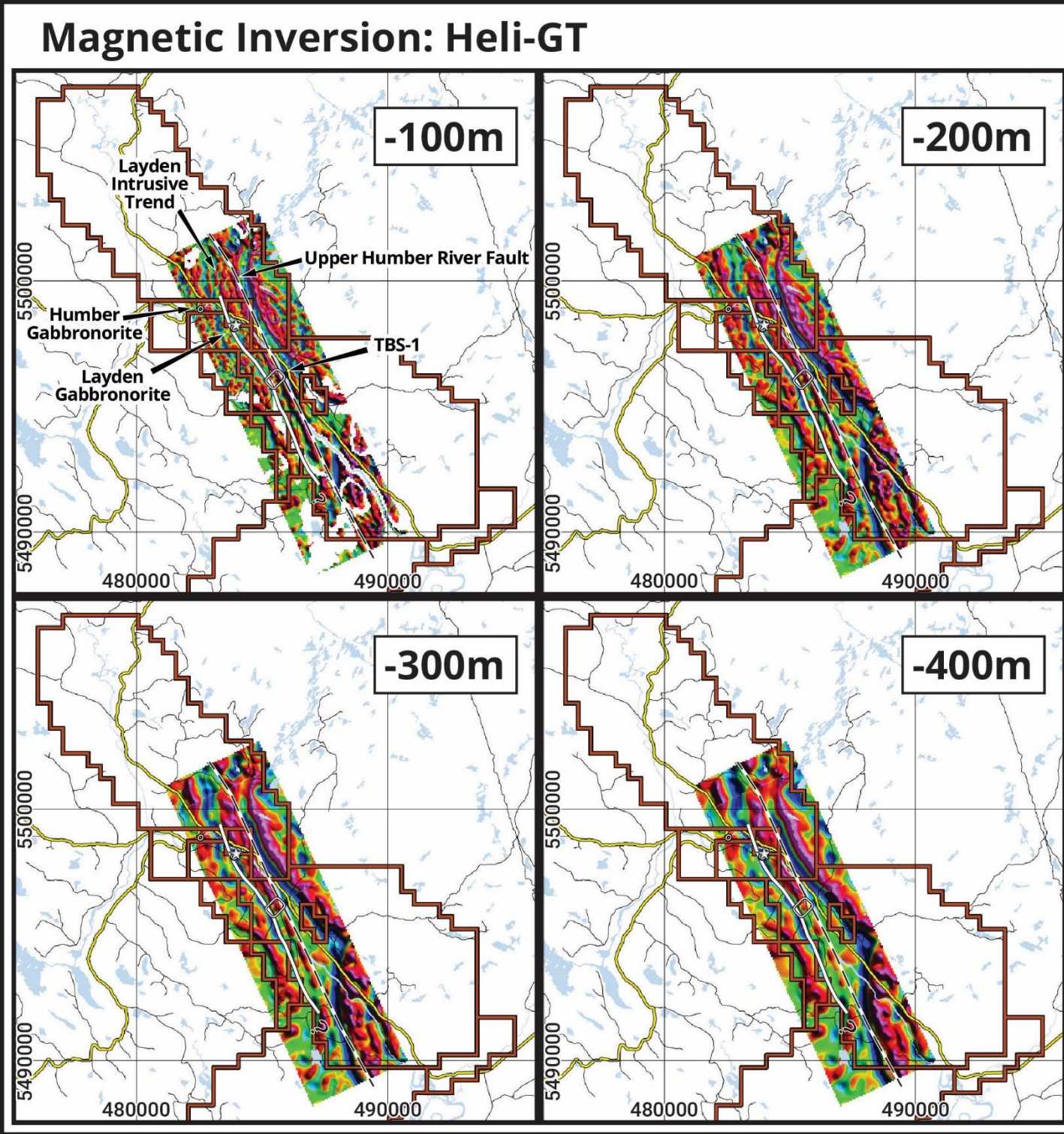
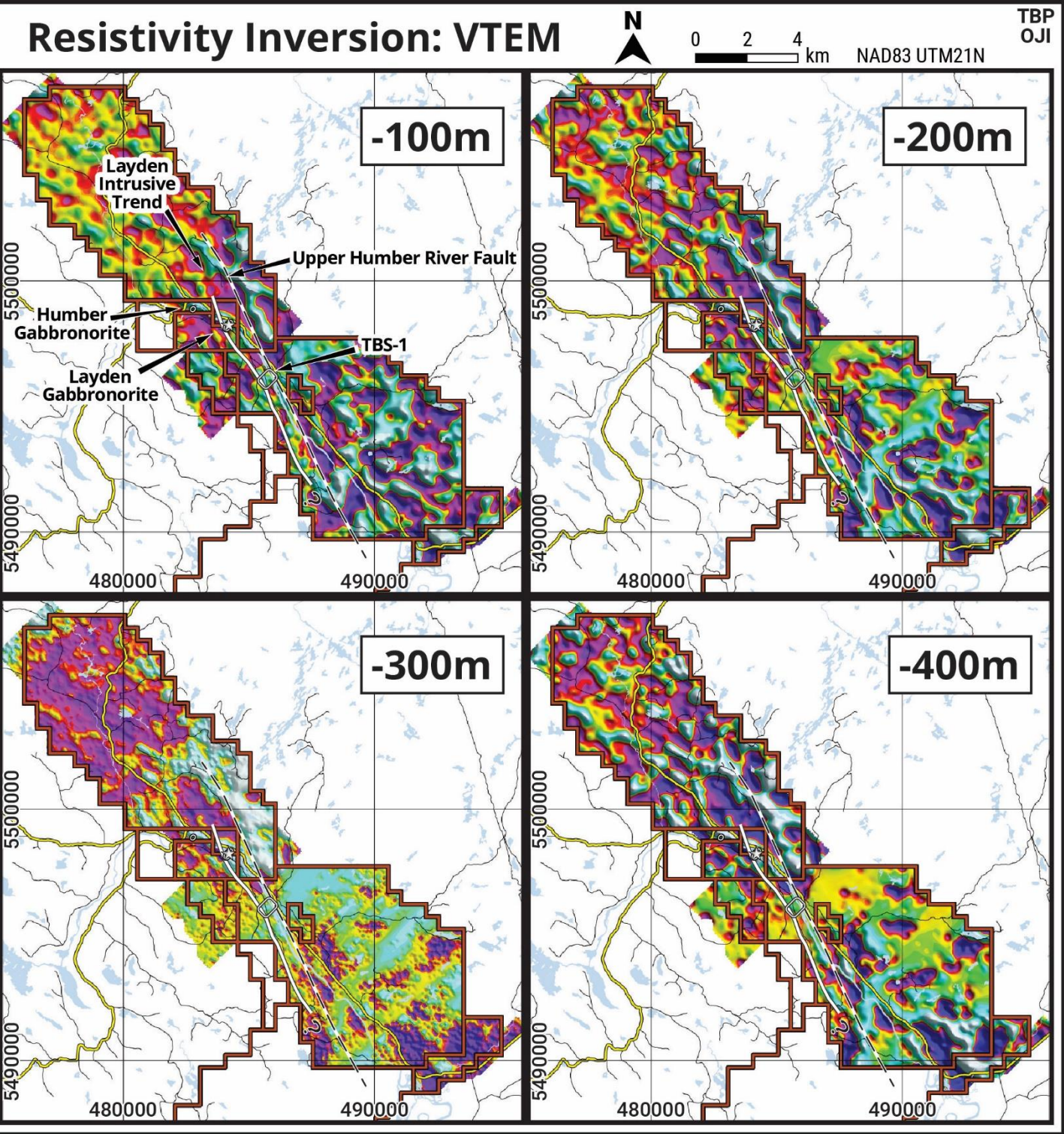


Figure 18-2b: Inverted VTEM Resistivity Depth Slices of the Taylor Brook Project Area



18.2 Detailed Overview of the Layden Gabbronorite Intrusive Area

Figures 18-3 and 18-4 present depth slice level plans of the Heli-GT magnetic inversion, and of the LeapfrogTM geological model of the Layden Gabbronorite.

Figure 18-3 shows the surface position of the Layden Gabbronorite with depth, indicating that the magnetic expression is diminished and offset by the Layden Fault with depth. If the Layden intrusive plug is truly offset by the fault, then Churchill's holes TB22-28 and TB22-29 (see figure 9-10) were drilled too far to the north, with the bulk of the gabbronorite to the south of these collars at depth.

The Layden Intrusive Trend models as a single highly magnetic body at depths below -400m, but with some complexity at -300m where individual nodes or bumps, particularly on the western side of the trend, may represent other mineralized intrusive areas. As well, the deeper depth slices suggest that areas where the trend is thickest are prospective targets for pools of sulphides.

The location of the TBS-1 soil anomaly is interesting as it directly overlies the most magnetic trend, and gabbroic rocks have been mapped there in follow-up prospecting. The soil sampling grid at TBS-1 has been tightened up to 50m line spacing in order to help define the limits of the anomaly, before stripping and washing.

Approximately 2km to the west of the Layden trend is a second gabbroic trend, marked by the Humber and PS1-PS2 gabbronorites. This western trend appears magnetically to be a much more broken up trend than the primary Layden Intrusive Trend, and to date no mineralization has been mapped along it, however there are some moderately anomalous soil sampling targets (Figure 9-7b).

Figure 18-3: Detailed Inverted Heli-GT Magnetic Depth Slices of the Layden Intrusive Area

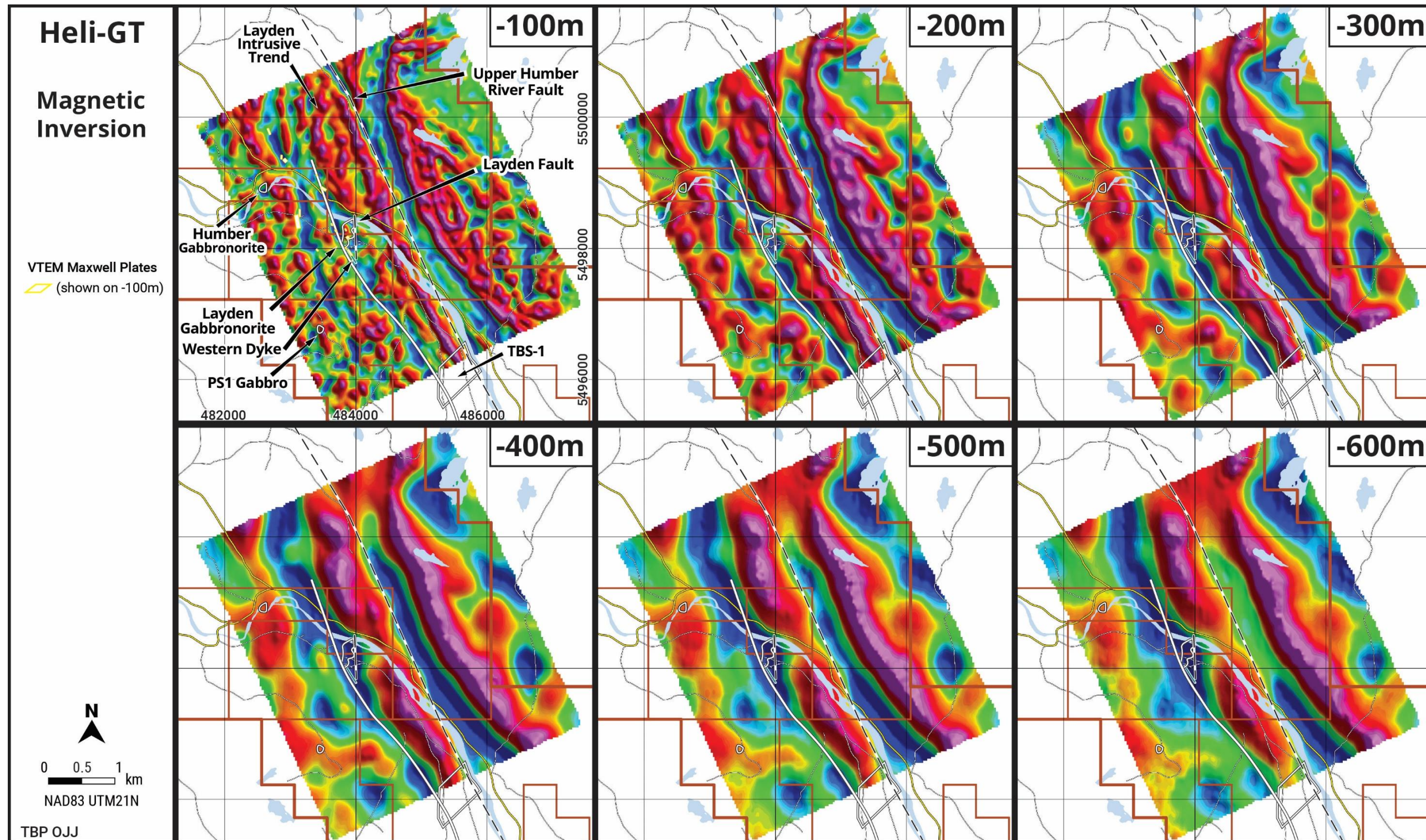
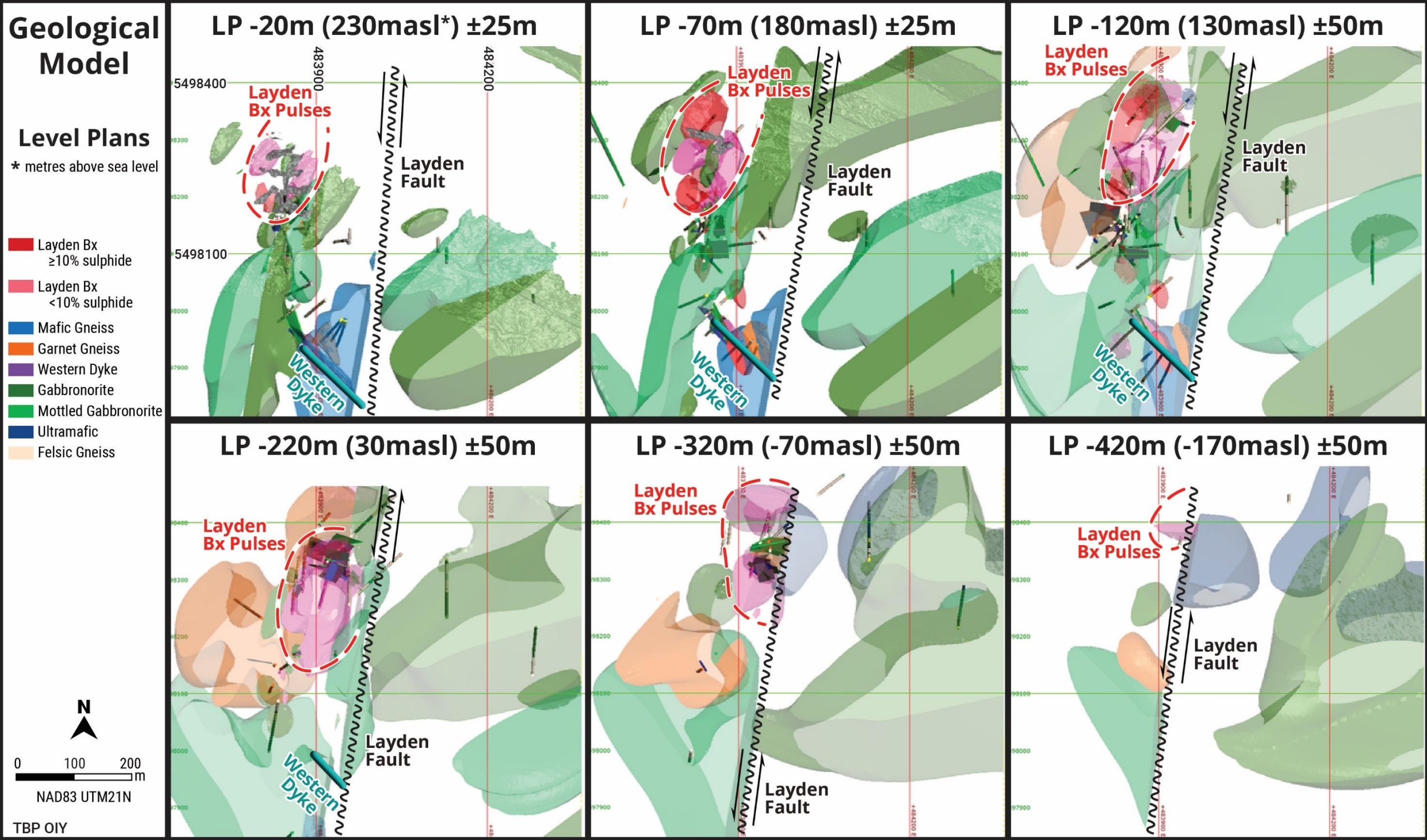


Figure 18-4: Layden Geological Model Depth Slices



19.0 RECOMMENDATIONS

Churchill's work to date at Taylor Brook has shown clear geochemical and geophysical relationships between the Taylor Brook Gabbro Complex and the magmatic mineralization at Layden, with the ~10km Layden Intrusive Trend thought to be the conduit between the two. Whilst this relationship needs further refining and definition through sampling, the age-relationships and recognition that the Layden rocks are not Grenvillian aged, is hugely important to understanding the emplacement history of these intrusions. If a magmatic nickel deposit or camp is present in Western Newfoundland, the Taylor Brook Project is a most likely spot, and all exploration data derived by Churchill continue to reinforce this model.

The authors therefore recommend the following 2023 exploration priorities for the project:

19.1 Exploration of the Layden Magmatic Trend and Taylor Brook Gabbro Complex

The following is recommended:

1. Continuation of soil sampling and prospecting along the entire Layden Intrusive Trend including margins with the Taylor Brook Gabbro Complex. As more access is created, more of the intrusive rocks as extant can be mapped and sampled for lithogeochemistry and petrography. A Beep Mat should be added to the prospecting to locate small sulfide occurrences <2m beneath cover.
2. The VTEM survey data along the southern portion of the trend and into the South Lobe of the TBGC should be revisited, with the view of refining interpretations and defining targets for follow-up. Expand the structural interpretation of the regional and detailed Aeromagnetics, VTEM Resistivity and the Digital Elevation Model data.
3. Heli-GT surveying of the southernmost area of the project should be completed, which should include more high-resolution data over the South Lobe of the TBGC. Add these data into the expanded structural interpretation.
4. Stripping and channel sampling of the TBS-1 target, along with a detailed CSAMT survey and then drilling if encouraged.
5. A structural kinematics study on the geophysical dataset should be carried out to augment the present structural interpretation. This should involve both the expanded interpretation of structures from geophysics plus structural field observations and interpretation by senior structural geologists. The idea of a transpressional zone in the Layden area should be tested. The idea of "structural

processes related to dilations and traps created by trans-extension in strike-slip fault” should be tested.

6. Continue to use lithogeochemical REE and MgO data from Layden Intrusive Trend gabbroic rocks to establish vectors towards mineralization centers, ie. Mineralized Layden Breccia type intrusives.
7. Expand the Surface TDEM coverage along the Layden Intrusive Trend over priority target areas determined from the structural analysis to detect massive sulfide drill targets.

19.2 Deeper Drilling of the Layden Intrusive Area

The following is recommended:

- a) A detailed Controlled Source Audio-Magnetotelluric (“CSAMT”) survey should be carried out over the Layden Gabbroic rocks to better model the locations of the breccias, high-grade sulphides, and conductor plates, as well as fault and shear structures. Calibrate the CSAMT parameters for ideal resolution in this environment. Determine if mapping subsurface Resistivity down to 1km+ with CSAMT can elucidate lithology, structure and possible conduits within structures for hosting magmatic intrusives and feeder zones that could host sulfide mineralization.
- b) Conduct a test of the Mobile MT (“MMT”) system from Expert Geophysics, and calibrate it against the ground CSAMT surveys, to determine if structure and conduit systems can be mapped at the property scale cost effectively. The Layden Gabbroic rocks should be flown as a test, with the survey continuing on subject to a satisfactory test in comparison with the CSAMT, which will be higher resolution and deeper looking.
- c) If the MMT test is not satisfactory, expand the CSAMT coverage along the Layden Intrusive Trend to search for more possible conduits.
- d) Deeper drilling should be conducted at the Layden Gabbroic rocks, concentrating on the southern portion of the intrusion where a “keel” has been interpreted. Conduct BHEM on all holes to detect massive sulfides offhole. Test the “keel” interpretation using CSAMT.
- e) Drill platform holes into deep possible conduit zones identified from the CSAMT and MMT and conduct BHEM on all of these holes to detect massive sulfides off-hole. A search radius around the hole of 300m on average should be considered

for large massive sulfide bodies, and a smaller search radius if smaller massive sulfides are desirable targets. The spacing of these platform holes along strike should be driven by target size and the interpretation of deep conduits. This approach is based on the assumption that the Layden Gabbro-norite mineralization is indicative of a larger sulfide system at depth and/or along strike.

- f) Induce Polarization (“IP”) surveys IP should be tested over the Layden showing and compared to the known sulfide intersections. If a positive correlation with the net-textured/disseminated sulphides is established, this signature should be used and the IP survey can then be expanded along the Layden Intrusive Trend structure to search for more conduits containing sulfide breccia, towards the goal of detecting a large tonnage sulfide breccia drill target. This approach could be considered a fall-back plan if the EM fails to detect massive sulfides, however this deposit model is actually present at Norilsk and is independent of a massive sulfide model.
- g) Drill test the other VTEM targets immediately to the north of the Layden Gabbro-norite, especially where resistivity inversion data define another ductile zone, and the magnetic inversions suggest that the Layden Intrusive Trend continues into this area.

19.3 Budget Estimate

The exploration program recommended above, before final decisions on the scope of potential CSAMT, MMT and IP surveys, has an overall estimated cost of ~\$2.0 million, including contingency, as per Table 19-1 below.

Table 19-1: Budget Estimate

Taylor Brook Project 2023 Fieldwork Components	Units	Estimate
Reprocess/Reinterpret VTEM Survey		\$20,000.00
Accommodation and Meals		\$200,000.00
Complete Soil Sampling Coverage*	5000	\$500,000.00
Geology/Prospecting/Kinematics	60 days	\$120,000.00
CSAMT/MMT/IP Test Surveys over Layden		\$300,000.00
Heli-GT magnetic gradiometer surveys	1050 line km	\$100,000.00
Drilling Program (all inclusive)*	2500m	\$500,000.00
Televiewer/BHEM Surveys		\$100,000.00
Contingency at 10%		\$180,000.00
Total		\$2,020,000.00
* including sample analysis		

Follow-on work should take the form of expanded coverage of the best performing geophysical surveys along the Layden Intrusive Trend, as well as deeper drilling and borehole EM surveys in the Layden Showing area. Follow-up stripping and drilling on other geochemical/ geological/geophysical conductor targets that proved positive for Ni-Cu-Co mineralization along the Layden Intrusive Trend and into the Taylor Brook Gabbro Complex.

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21.0 CERTIFICATES OF QUALIFICATION

Dr. Derek H. C. Wilton, Pgeo., FGC

7 Yellowknife St.
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Tel: 709-730-6624

I, Derek Harold Clement Wilton, do hereby certify the following:

- I am currently a part-time Faculty Researcher at the College of the North Atlantic, St. John's, NL, and am a recently retired (Dec. 31, 2019) Professor – Department of Earth Sciences, Memorial University of Newfoundland (MUN), St. John's, NL, A1B 3X5 where I had been employed as a fulltime employee since September 1983.
- I also operate under the business name of Terra Rosetta Inc., a geological consulting business (active since November 2007) independent of Churchill Resources Inc .
- I graduated with the degree of BSc. (Geology) from Memorial University of Newfoundland in 1976, MSc. (Geological Sciences) from the University of British Columbia in 1978, and a PhD. from Memorial University of Newfoundland in 1984 and have worked continuously in the industry since that time.
- I am duly registered with, and a member in good standing of, the Professional Engineers and Geoscientists of Newfoundland and Labrador (PEG-NL Reg. No. 02840).
- I am a Fellow of Geosciences Canada, Fellow of the Geological Association of Canada, and Fellow of the Royal Canadian Geographical Society.
- I have worked as a geologist for a total of 47 years since my BSc. graduation. My relevant experience for the purpose of the Technical Report is that I have conducted geological research in Newfoundland and Labrador since 1976. I have completed extensive work on Newfoundland and Labrador nickel sulphide deposits, particularly the Voisey's Bay deposit in northern Labrador, and I have undertaken collaborative work with government geologists and consulting work on nickel sulphide mineralization throughout Newfoundland and Labrador.
- I visited the exact site of the licences first on February 09, 2021, and then in November 2021, July, August, November 2022. I had previously visited the general area of the licences in 2002 with Roland Butler of Altius Resources and in 2005 with MSc. Student, Patrick Collins.
- I have read the definition of "qualified person" set out in National Instrument 43- 101 ("NI43-101") and certify that by reason of my education, affiliation with professional associations (as deemed in NI43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101. I am responsible for the preparation of all sections of this technical document titled "NI 43-101 Technical Report on Taylors Brook Property, West-Central Newfoundland, Newfoundland and Labrador, Canada" (the "report"), with an effective date of June 30, 2023.

- I prepared and I am responsible for the contents of all sections of this technical report (the “Report”) entitled “NI 43-101 Technical report on the Taylor Brook Project, western White Bay area, west-central Newfoundland, Newfoundland and Labrador
- As of June 30, 2023 and to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
- I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which make the Technical Report misleading.
- I am independent of the issuer applying all the tests in Section 1.5 of National Instrument 43-101 and I do not hold, nor expect to hold, securities of Churchill Diamonds Corp. or 9 Capital Corp.
- I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
- The business address of Terra Rosetta Inc. is:

Terra Rosetta Inc.
7 Yellowknife St.
St. John’s NL
A1A 2Z7

August 1, 2023

Jeremy S. Brett, M.Sc., PGeo.

400 - 550 Queens Quay West, Toronto, Ontario M5V3M8

I, Jeremy S. Brett, do hereby certify the following:

- I am a Senior Geophysical Consultant, with over 26 years of industry experience in mineral exploration, for most commodities, using most geophysical methods.
- I conduct business under "Jeremy S. Brett International Consulting Ltd.", an incorporated Geoscience consulting business (active since July, 2020), which is independent of Churchill Diamonds Corp. Corp.
- I am a graduate in Physics (Geophysics), B.Sc., 1992, and Geology (Geophysics), M.Sc., 1995, from the University of Toronto. I have been active as a professional consultant in the mining industry since 1994.
- I am a member in good standing of the *Professional Geoscientist Ontario* (APGO #0923).
- I have relevant work experience for the purpose of the Technical Report. I have conducted Consulting work on Geophysical data for numerous Nickel-copper sulfide and PGE projects in Ontario and Quebec, and have interpreted multiple geophysical data types towards exploration goals on these projects, in the context of appropriate Ni-Cu PGE ore deposit models, including the use of Geotech VTEM data, as described in this report.
- I have been involved with the planning, supervision, and quality control evaluation of the 2021-2022 VTEM, TDEM, BHEM and Heli-GT geophysical surveys over Taylor Brook property. I have not visited the Taylor Brook property.
- I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI43-101") and certify that by reason of my education, affiliation with professional associations (as deemed in NI43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101. I am responsible for the preparation of parts of Sections 2.2, 3.0, 9.0, 9.1, 9.2, 12.3, 18.0, 19.1, 19.2, 19.3, and 20.0 of this technical document titled "NI 43-101 Technical Report on Taylor Brook Project, West-Central Newfoundland, Newfoundland and Labrador, Canada" (the "report"), with an effective date of June 30, 2023.
- As of March 31, 2021 and to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

- I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which make the Technical Report misleading.
- I am independent of the issuer applying all the tests in Section 1.5 of National Instrument 43-101 and I do not hold, nor expect to hold, securities of Churchill Diamonds Corp. or 9 Capital Corp.
- I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

Jeremy S. Brett International Consulting Ltd.

[Signed] [Sealed]

**Jeremy S. Brett, M.Sc., P.Geo.
Senior Geophysical Consultant**

August 1, 2023

Paul Sobie, CEO, P.Geo.

179 Guelph Street, Rockwood, Ontario N0B 2K0

I, Paul Sobie, do hereby certify the following:

- I am a Senior Economic Geologist, with over 35 years of industry experience in mineral exploration, for most commodities, using most modern geological, geophysical and geochemical methods.
- I conduct business under "MPH Consulting Limited.", an incorporated geological consulting business (active since 1967), which is independent of Churchill Resources Inc.
- I am a graduate in Geology, with a B.Sc., 1987, from the Laurentian University, Sudbury. I have been active as a professional consultant in the mining industry since 1987.
- I am a member in good standing of the *Professional Geoscientist of Ontario* (APGO #0374).
- I am a member in good standing of the *Professional Engineers and Geoscientists of Newfoundland and Labrador* (PEGNL #11244).
- I have relevant work experience for the purpose of the Technical Report. I have conducted consulting work on numerous nickel-copper sulfide and PGE projects in Ontario, Manitoba and Quebec, plus international projects in Botswana and South Africa, and have interpreted data and made conclusions and recommendations, in the context of appropriate Ni-Cu PGE ore deposit models, as described in this report.
- I have been involved with the acquisition, expansion, planning, supervision, and quality control of the 2021-2022 exploration programs on Taylor Brook Project.
- I have visited the Taylor Brook project numerous times since July 2021, generally spending several days per month on site when exploration is active.
- I have read the definition of "qualified person" set out in national instrument 43-101 ("NI43-101") and certify that by reason of my education, affiliation with professional associations (as deemed in NI43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101. I am responsible for assisting with the preparation of all sections of this technical document titled "NI 43-101 technical report on the Taylor Brook Project, Western White Bay Area, West-central Newfoundland, Newfoundland and Labrador for Churchill Resources Inc." (the "report"), with an effective date of June 30, 2023.

- As of June 30, 2023 and to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
- I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which make the Technical Report misleading.
- I am an officer and director of Churchill Resources Inc., and therefore I am not independent of the issuer.
- I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

Paul Sobie, CEO, P.Geol.

[Signed] [Sealed]

**Paul Sobie
August 1, 2023**

British Columbia Securities Commission
Alberta Securities Commission
Ontario Securities Commission

Dear Sirs/Mesdames:

I, [Paul Sobie, P.Geo.](#), am responsible for preparing or supervising the preparation the technical report titled "NI 43-101 technical report on the Taylor Brook Project, Western White Bay Area, West-central Newfoundland, Newfoundland and Labrador for Churchill Resources Inc." dated July 26, 2023 with an effective date of [June 30](#), 2023 (the "**Technical Report**") prepared for Churchill Resources Inc. (the "**Company**").

Furthermore, I consent to the public filing of the Technical Report by the Company.

Dated this 26th day of July, 2023

["Paul Sobie"](#)

[Paul Sobie, P.Geo](#)