FRENCHVALE GRAPHITE PROPERTY

Nova Scotia, Canada

NI 43-101 TECHNICAL REPORT

Prepared for:

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1 SUMMARY

This report titled *Frenchvale Graphite Property, Nova Scotia, Canada NI 43-101 Technical Report* (the “Report”) reviews past mineral exploration efforts and makes recommendations for advancing the Frenchvale Graphite Property (the “Property”), prospective for a flake graphite deposit. As of the date of this Report – December 11, 2023 (the “Effective Date”) Mt. Cameron Minerals Incorporated (“Mt. Cameron”) has 100% ownership in the Property, and has entered into an option agreement with Argyle Resources Corp. (“Argyle”) dated June 5, 2023 (the “Option Agreement”) whereby Argyle can acquire a 100% interest in the Property, free and clear of all encumbrances and claims, other than certain permitted encumbrances set out in the Option Agreement.

This Report was prepared and authored by Halle Geological Services Ltd. (“HGS”) Senior Geoscientist Jesse R. Halle, P.Geo. (the “Author”), an independent and qualified person (“QP”) as defined by Canadian Securities Administrators *National Instrument 43-101 – Standards of Disclosure for Mineral Projects* (“NI 43-101”). This Report was prepared in accordance with Form 43-101F1.

The Property is located in northeastern Nova Scotia on the island of Cape Breton and is 19 kilometres west-southwest of Sydney. The Property covers parts of national topographic system (“NTS”) map sheets 11K/01 and is centred at UTM 697850mE, 5104625mN. The property most easily accessed from the former city and urban community of Sydney via the Frenchvale Road passing through the communities of Frenchvale and Rear Boisdale.

The Property was acquired by Mt. Cameron in 1999, and now consists of five contiguous exploration licences (55701, 55707, 55708, 55855, and 55857) covering an area of approximately 1975 hectares, as issued by the Nova Scotia Department of Natural Resources and Renewables (“NSDNRR”). The exploration licences are all held in the name of Mt. Cameron and are in good standing as of the Effective Date.

Early exploration history within the current Property (between 1890 and 1970) centres on an iron deposit and base metal showings, mainly south of Bourniot Road within the Bras d’Or Terrane. Graphite occurrences, found in the George River carbonates, are mentioned in the earliest of reports (e.g., Fletcher, 1877; Hoffman, 1879), and in later reports (e.g., Hill, 1987; Hill, 1989) covering the current Property, but were not explored in earnest prior to involvement of Mt. Cameron. Since 1999, Mt. Cameron has completed 2,779 metres of drilling, 528 line-kilometers of airborne and 17.5 line-km of ground geophysics, 168 metres of trenching, along with mapping and prospecting.

The Author has reviewed, evaluated and compiled all Property data supplied by Mt. Cameron Minerals. Additional data was obtained by the Author through publicly available documents obtained from the NSDNRR and in-person inspections of the Property and drill core.

Based on the evaluation of data available for the Property as of the Effective Date, the Author concludes the following:

- Mt. Cameron has 100% ownership in the Property, located near the community of Frenchvale, Nova Scotia
- Argyle has entered into an option agreement whereby it can acquire 100% interest in and to the Property, free and clear of all encumbrances and claims, other than certain permitted encumbrances set out in the Option Agreement
- The Property contains several varieties of metallic skarns in multiple locations, some of which have undergone moderate development, as well as numerous graphite occurrences at various stages of exploration
- The main graphite occurrence (the "Main Zone"), approximately 800 metres west of Campbell Lake, was drill-tested by Mt. Cameron in 2023 with assays returning graphite grades as high as 6.0% over 0.17 metres, and a separate composited grade of 4.3% over 3.3 metres
- Drill hole FV-10-01 from 2010 exhibits a 36.4 weight percent of medium and coarse graphite flakes within a 1.06 metre interval which assayed 4.76% graphite
- Approximately 20% of graphite from submitted samples can be considered fully liberated (free) upon grinding, with calcite accounting for the largest proportion of minerals externally-associated to graphite
- Approximately 37% of graphite assays prior to 2023 are considered not reliable resulting from lack of or failing QA/QC
- The Property is at early stages of exploration and holds potential for additional discovery

Additional work is warranted to further evaluate flake graphite potential at the Frenchvale Graphite Property. An exploration program (the "Program") is recommended to continue building Property data and target additional and higher-grade flake graphite mineralization. The Program consists of the collection of IP and resistivity data concurrent with infill and check assaying on historical core, followed by the validation of encouraging results through exploration and infill drilling of priority targets, as ordered below.

1. Acquisition of an induced polarization and resistivity survey over the Main Zone, to the immediate southwest and northeast of that acquired in 2008, as IP results are parallel to

and coincident with interpreted geology and graphitic horizons. Other targets should also be considered for collection of IP and resistivity data, including near historic drill hole 453-5 and conductive Zones 3 and 4 identified in the 2017 airborne survey.

2. Infill and/or re-sampling of historical drill core where warranted, most notably that drilled in 2010, to obtain additional and reliable graphite grades. Re-evaluating the 453-series drill core from 1963 is also warranted. Representative samples of identified lithologies from this effort should be submitted for physical property testing, including graphite liberation and flake size analysis.
3. Infill diamond drilling between drilled sections at the Main Zone as well as exploration drilling along strike from mineralized horizons of the Main Zone, and/or where targeted by IP and resistivity. Drill core samples from should undergo a rigorous QA/QC program to ensure confidence in resulting data. Additionally, commencing a data set of drill core conductivity and magnetism could aid geophysical interpretation. A representative number of samples should be submitted for physical property testing including graphite liberation and flake size analysis.

The recommended Program comes with a total estimated cost of $250,000 and is projected to require 6 to 8 months to complete.

2 INTRODUCTION

This Report on the Property was prepared for Argyle Resources Corp., a privately-held company incorporated in British Columbia. The Report has been prepared in compliance with *NI 43-101*, *Form 43-101F1 Technical Report,* and *Companion Policy 43-101CP* to partially satisfy the requirements for Argyle to become a reporting issuer in certain jurisdictions in Canada so that it may engage in an initial public offering, and subsequently apply to have its common shares listed as trading on a Canadian stock exchange.

Argyle has entered into an Option Agreement with Mt. Cameron whereby it can acquire a 100% interest in and to the Property, free and clear of all encumbrances and claims, other than certain permitted encumbrances set out in the Option Agreement. Mt. Cameron is a privately-held company, incorporated in Nova Scotia, Canada, and holds a 100% ownership of the Property, on which the multiple base metal, precious metal, and graphite occurrences are located.

Argyle commissioned HGS of Halifax, Nova Scotia to prepare and author this Report. The Author, Jesse R. Halle is a QP within the meaning of *NI 43-101*. The Author is independent as described in section 1.5 of *NI 43-101*, and is independent of both Argyle and Mt. Cameron.

The Property is located near the community of Frenchvale, approximately 19 kilometres west-southwest of Sydney, Nova Scotia on Cape Breton Island. The Property is host to numerous base and precious metal occurrences along with graphite occurrences and was acquired by Mt. Cameron in 1999. In this Report, the Author reviews the various historic mineral exploration projects of the Property and provides recommendations for advancing the Property.

The Author visited exploration licences 55701, 55855, and 55857 of the Property on November 2, 2023 to fulfill due diligence site visit requirements for this Report. Graphite mineralization was noted in a trench (Figure 2.1a) and in outcrop, and positioning of access roads, drill collars, and geological features in relation to claim boundaries were verified using a handheld GPS. The timber on the Property had been recently harvested on a portion of the Main Zone, but 2023 collars were preserved (See Figure 2.1b).

The Author also visited the NSDNRR core library in Stellarton, Nova Scotia in order to review drill core and sampling procedures on three occasions (July 18, August 23, and September 20, 2023).

Figure 2.1: QP site visit (a) L10 trench, and (b) drill hole collar FV-23-01

2.1 SOURCES OF INFORMATION

The findings, conclusions and recommendations contained herein are based on information presented in reports on exploration activities from 1876 to 1999, assessment reports on exploration activities from Mt. Cameron during the period 1999 to 2021, provincial and federal governmental reports, and third-party reports. The Author acquired, reviewed, and compiled relevant Property information, data, and reports, supplied by Mt. Cameron, as well as through independent research. Data was compiled and presented with the aid of Esri ArcMap and Seequent Geosoft Target software. The Author believes the data review to be accurate and complete in all material aspects.

The co-ordinate system used in this report is Universal Transverse Mercator ("UTM") Zone 20N, and the datum used is North American Datum 1983. Unless otherwise stated, all units used in this report use metric units. Graphite concentrations are reported in percent (%). The Author has relied on publicly-available topographic maps from the Government of Canada and geological maps produced by the Geological Survey of Canada and the Geological Survey of Nova Scotia, in addition to imagery obtained from Google Earth.

A list of abbreviations and acronyms used in this report are shown in Table 2.1.

Table 2.1: Abbreviations and Acronyms

Description	Abbreviation or Acronym
percent	%
three dimensional	3D
degrees	°
Activation Laboratories Ltd.	Actlabs
silver	Ag
arsenic	As
gold	Au
circa	c.
centigrade, carbon	C
calcium	Ca
Canadian dollar	CAD
chlorine	Cl
centimetre	cm
certified reference material	CRM
copper	Cu
diamond drill hole	DDH
digital elevation model	DEM
NS Department of Natural Resources and Renewables	NSDNRR
east	E
for example	e.g.
iron	Fe
feet	ft
Frenchvale road metamorphic suite	FRMS
gram	g
billion years	Ga
global positioning system	GPS
Halle Geological Services Ltd	HGS
hydrogen	H
hectare	ha
mercury	Hg
inductively coupled plasma	ICP
International Organization for Standardization	ISO
kilogram	kg
kilometre	km
litre	L
Laboratory Equipment Company	LECO®
loss on ignition	LOI
length x width x height	L x W x H
light detection and ranging	LiDAR
pound	lb
metre	m
micrometer	µm

Description	Abbreviation or Acronym
million years	Ma
Minerals Engineering Centre	MEC
magnesium	Mg
millimetre	mm
manganese	Mn
Mineral Liberation Analyzer	MLA
mineral resource estimate	MRE
north	N
North American Datum	NAD
nickel	Ni
National Instrument 43-101	NI 43-101
Nova Scotia	NS
National Topographic System	NTS
oxygen	O
Ontario	ON
ounce	oz
Professional Geoscientist	P.Geo.
lead	Pb
platinum group element	PGE
quality assurance/quality control	QA/QC
qualified person	QP
quantitative evaluation of materials by scanning electron microscope	QEMSCAN
south	S
antimony	Sb
specific gravity	SG
SGS Minerals Services	SGS
square kilometre	sq. km
ton (imperial)	ton
tonne (metric)	t
time-domain electro-magnetic	TDEM
total graphitic carbon	TGC
total inorganic carbon	TIC
true north	TN
total organic carbon	TOC
universal transverse mercator	UTM
very low frequency electro-magnetic	VLF-EM
tungsten	W
X-Ray Assay Laboratories	XRAL
x-ray fluorescence	XRF
zinc	Zn

3 RELIANCE ON OTHER EXPERTS

The Author acquired information on the Property mineral exploration licences and constituent claims from the Nova Scotia Registry of Mineral and Petroleum Titles online claims system ("NovaROC"). As of the Effective Date, the Author has verified that the Property mineral claims are in good standing on NovaROC, but does not offer an opinion to the legal status, surface, or access rights to such claims other than those noted in Section 4.

The Author is relying upon information provided by Argyle and Mt. Cameron concerning any legal, option, and joint venture matters relating to the Property.

4 PROPERTY DESCRIPTION AND LOCATION

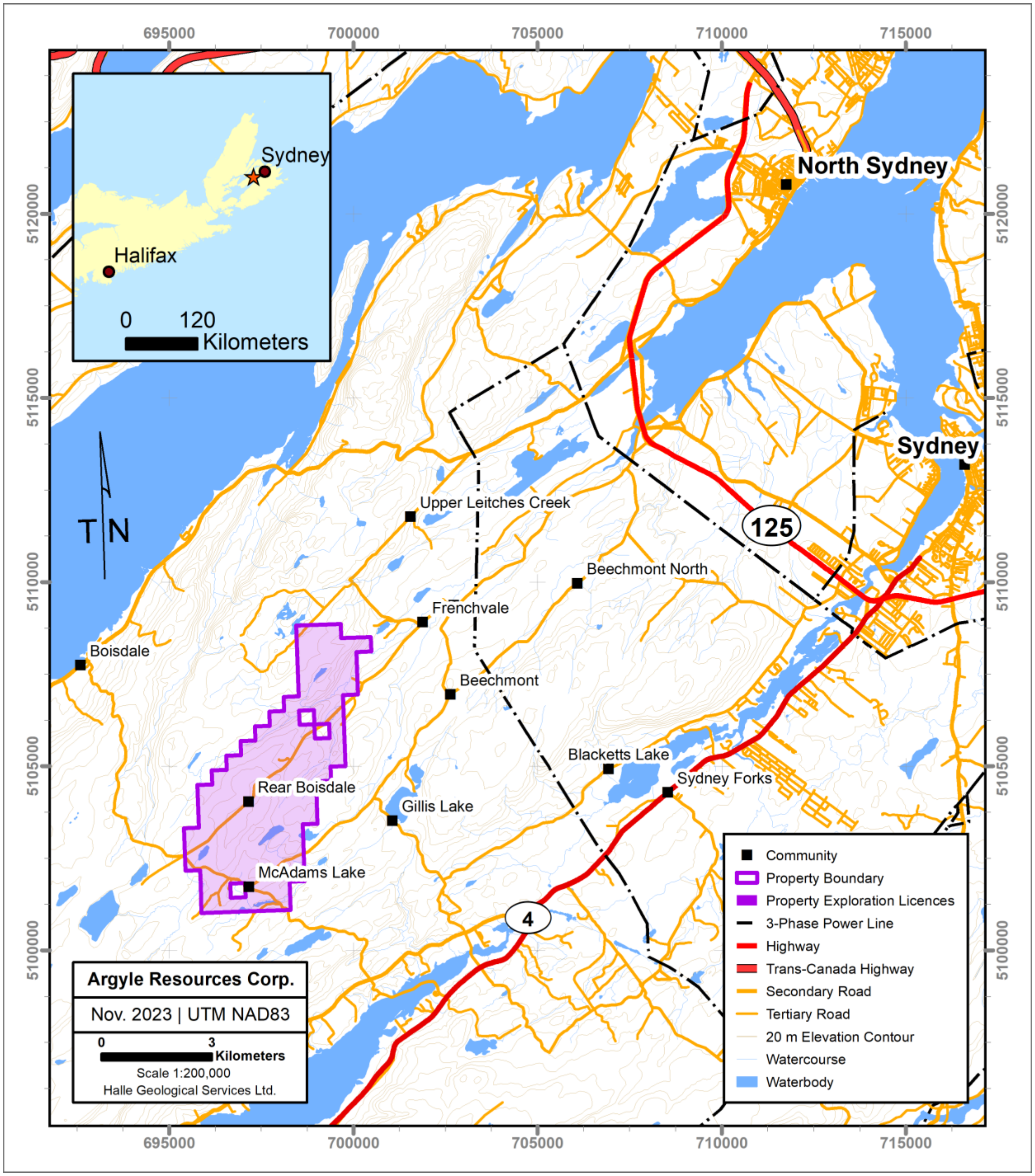
4.1 LOCATION

The Property is located on the island of Cape Breton in northeastern Nova Scotia, approximately 19 kilometres west-southwest of the former city and urban community of Sydney (Figure 4.1).

The Property covers parts of NTS map sheets 11K/01 and is centred at UTM 697850mE, 5104625mN (46°4.0'N latitude and 60°26.5'W longitude). Several roads connect the Property area to Sydney and to the rest of Canada. From Sydney, the Property is most easily accessed via the Frenchvale Road, passing through the communities of Frenchvale and Rear Boisdale. Two right-of-ways extending southeast from Frenchvale Road provide additional access to the Property.

As of the Effective Date, the Property is comprised of five contiguous exploration licences covering approximately 1975 hectares, all of which are held in the name of Mt. Cameron, and are in good standing with the NSDNRR until the dates listed in Table 4.2.1.

Figure 4.1: Property Location Map



4.2 MINERAL TENURE

The Property consists of five contiguous exploration licences, totaling 122 claims and covering approximately 1975 hectares, as issued by the NSDNRR. Mining leases are not present adjoining the area of the Property claims.

Specifics of the Property licences and claims are presented in Table 4.2.1.

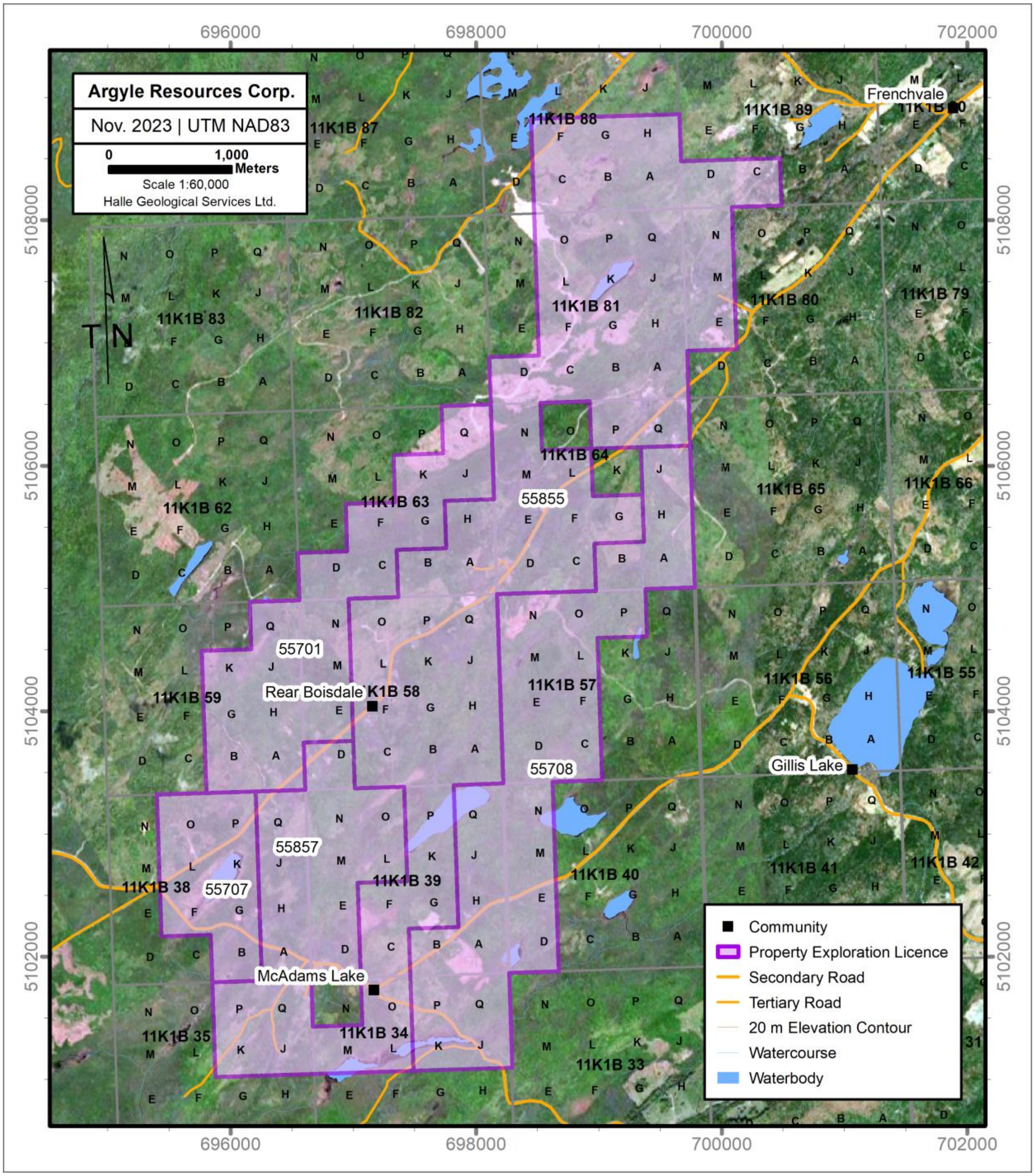
Table 4.2.1: Exploration Licences of the Property

Exploration License No.	NTS Map Sheet	Tract	Claims	No. of Claims	Area (Ha)	Term	Issued	Expiry
55701	11K/01B	58	E, M, N	17	275.23	1	2023-04-20	2025-04-20
	11K/01B	59	A, B, G, H, J, K, Q					
	11K/01B	63	C, D, F, G, J, K, Q					
55707	11K/01B	38	B, F, G, K, L, O, P	7	113.33	1	2023-11-30	2025-11-30
55708	11K/01B	34	J, K, P, Q	26	420.94	1	2023-04-20	2025-04-20
	11K/01B	39	A, B, H, J, Q					
	11K/01B	40	D, E, M, N					
	11K/01B	57	C, D, E, F, L, M, N, O, P					
	11K/01B	64	A, B, H, J					
55855	11K/01B	34	L, M, O	61	987.59	4	2015-06-02	2024-06-02
	11K/01B	35	J, K, P, Q					
	11K/01B	39	C, F, G, K, P					
	11K/01B	58	A, B, C, F, G, H, J, K, L, O, P, Q					
	11K/01B	63	A, B, H					
	11K/01B	64	C, D, E, F, G, L, M, N, P Q					
	11K/01B	80	E, M, N					
	11K/01B	81	A, B, C, D, F, G, H, J, K, L, O, P, Q					
	11K/01B	88	A, B, C, F, G, H					
	11K/01B	89	C, D					
55857	11K/01B	38	A, H, J, Q	11	178.09	13	1998-01-14	2024-01-14
	11K/01B	39	D, E, L, M, N, O					
	11K/01B	58	D					

Claim locations are electronically registered in the Province of Nova Scotia, whereby each NTS map sheet is divided into quadrants (labelled A through D). Each quadrant is divided into 108 smaller units (called tracts), each consisting of 16 claims (labelled A to H, and J to Q). An individual claim is approximately 400 metres by 400 metres. As a result of this system, claim boundaries are well-defined and easily locatable with hand-held GPS devices. The Property claims have not been legally surveyed and there is no requirement to do so at this time.

The locations of the Property licences and claims are depicted in Figure 4.2.1.

Figure 4.2.1: Property Exploration Licences and Claims Map



The annual fees and work commitments due on all claims comprising the Property are in compliance, and all of the claims are in good standing. Mt. Cameron Minerals holds a 100% interest in the Property and exploration rights. At the Effective Date, exploration licences were in good standing. Mt. Cameron has informed the Author of no existing royalty agreements on the Property other than the royalty held by the province of Nova Scotia as defined in the Nova Scotia Mineral Resources Act.

Table 4.2.2: Required Expenditures per Licence Term

Exploration Licence		Expenditure Required per claim		
TERM	AGE	Assessment Work Required	Licence Renewal Fee	Total/Term
1	1	$ -	$ -	$ -
	2	$ 400	$ 10	$ 410
2	3	$ -	$ -	$ -
	4	$ 400	$ 20	$ 420
3	5	$ -	$ -	$ -
	6	$ 600	$ 20	$ 620
4	7	$ -	$ -	$ -
	8	$ 600	$ 20	$ 620
5	9	$ -	$ -	$ -
	10	$ 600	$ 20	$ 620
6	11	$ -	$ -	$ -
	12	$ 800	$ 40	$ 840
7	13	$ -	$ -	$ -
	14	$ 800	$ 40	$ 840
8	15	$ -	$ -	$ -
	16	$ 800	$ 40	$ 840
9+	17	$ -	$ -	$ -
	18	$ 1,600	$ 160	$ 1,760

4.3 Option Agreement

Mt. Cameron holds a 100% interest in the mineral rights of the Property. On June 5, 2023, Mt. Cameron entered into an Option Agreement with Argyle whereby Argyle can acquire a 100% interest in the Property free and clear of all encumbrances and claims, other than certain permitted encumbrances set out in the Option Agreement. The Author is relying upon information provided by Argyle and Mt. Cameron concerning any legal, option, and joint venture matters relating to the Property.

Subject to the terms and conditions of the Option Agreement, Argyle may exercise its option to acquire the Property by funding or incurring expenditures for four work programs on the Property as summarized in Table 4.3.

Table 4.3: Option Agreement Program Expenditures

Work Program	Date	Funding Amount
Work Program No. 1	On the date the first Work Program is approved	$150,000
Work Program No. 2	On or before the date that is twelve (12) months after the date in which Argyle's common shares are listed for trading on a Canadian stock exchange ("Listing Date")	$250,000
Work Program No. 3	On or before the date that is twenty-four (24) months after the Listing Date	$1,000,000
Work Program No. 4	On or before the date that is thirty-six (36) months after the Listing Date	$3,000,000

The respective amounts indicated are the respective amounts required to be expended by Argyle in order to exercise the option, notwithstanding that the budget for a particular work program may be in excess of such amount. Argyle may, in its sole discretion, make up any shortfall in any period by making a cash payment to Mt. Cameron before the end of the applicable period. The expenditures required in connection with the first work program include the preparation of the Report.

Upon Argyle earning a one hundred percent (100%) legal and beneficial interest in and to the Property, Argyle must also issue to Mt. Cameron or, if Mt. Cameron so elects, to the shareholders of Mt. Cameron, such number of common shares such that Mt. Cameron, or its shareholders, as the case may be, will own forty percent (40%) of the then issued and outstanding common shares of Argyle.

4.4 Permitting and Surface Rights

Mineral rights and tenures in Nova Scotia are governed by the *Mineral Resources Act* and regulations thereunder. A mineral exploration licence gives the licensee the exclusive right to explore for minerals in, on or under the area of land described in the licence. A mineral exploration licence in Nova Scotia is issued for a two-year term and may be renewed, provided the required assessment work is completed, reported and accepted by the NSDNRR, and renewal fees are paid (Table 4.2.2). Assessment work must be completed on or before the anniversary date of licence issuance.

The licensee must ensure sufficient permissions or rights of access to the surface property are in place prior to conducting field work. In the case of Crown land, written consent is required from the NSDNRR.

Any person who intends to conduct an exploration program must submit prior notice with a detailed description of the planned activity to the NSDNRR. An exploration program that may result in ground disturbance or disruption to wildlife habitat must have an approval from NSDNRR, as well as written consent from the landowner before the activity can commence. The NovaROC online permitting system provides permit applications required for mineral exploration in the Province of Nova Scotia.

Neither Argyle nor Mt. Cameron possess surface rights in the Property area. Surface rights to lands overlying the Property are held by various private landowners. Since 1999, Mt. Cameron has successfully obtained multiple approvals and exploration permits for the Property. At the Effective Date, three land access agreements are valid for five parcels of land that cover most of the Main Zone, and large concessions to the east, south and west of the Main Zone. Many of the areas recommended to receive future exploration outlined in this Report are within the parcels covered by these land access agreements. Future drill programs require ten-day advance notification to the NSDNRR.

Through there are no registered First Nation special claim sites in the Property as of 2009 (Oram and Hoeg, 2009), establishing contact and consultation with local First Nation groups prior to commencing work in the area is standard best practice.

4.5 Environmental Regulations and Risks

The Author is not aware of any environmental liabilities or other significant factors or risks that may affect access, title, or right or ability for Mt. Cameron or Argyle to perform exploration work associated with the Property and no environmental issues were identified during the Author’s site visit on November 2, 2023.

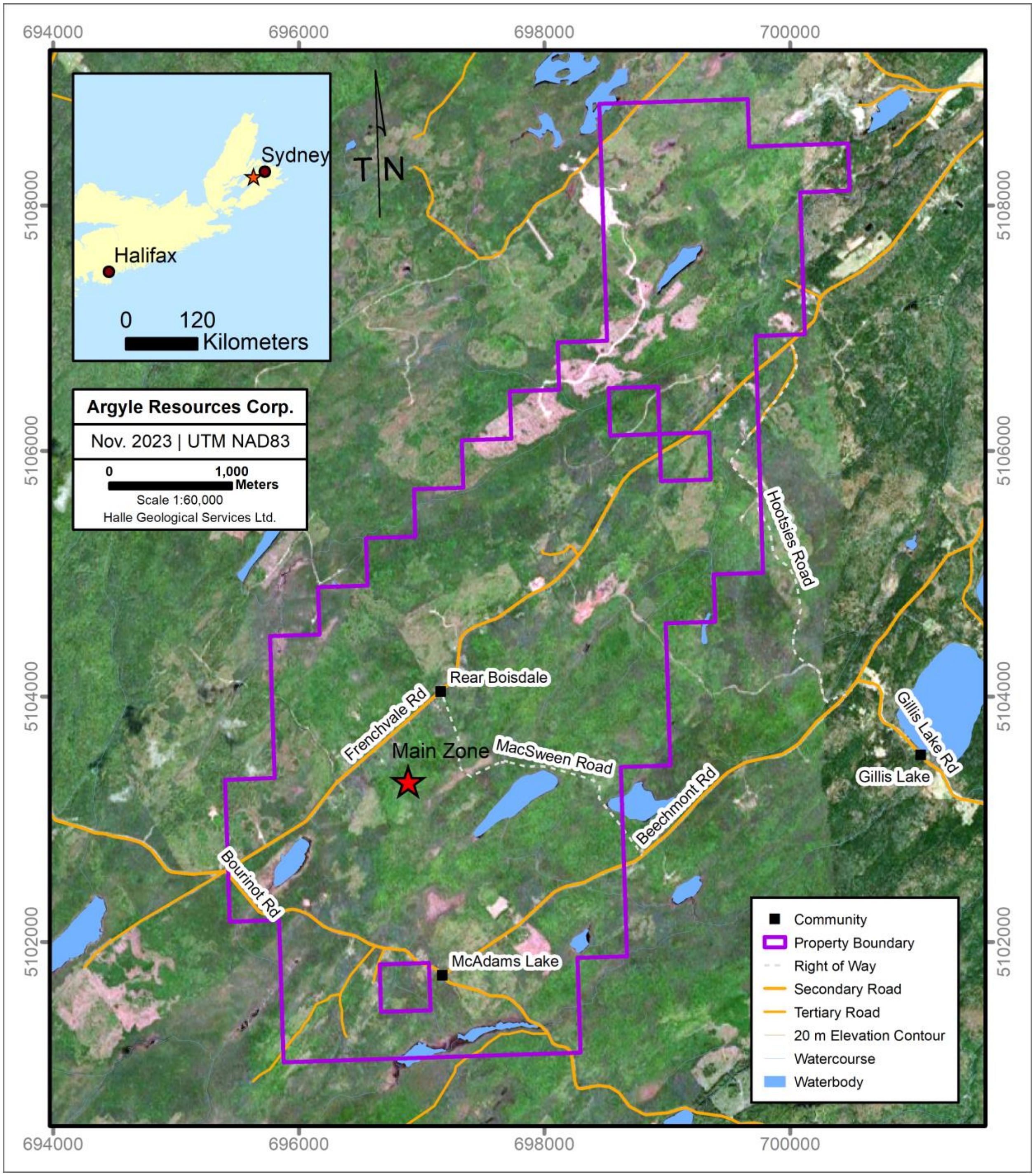
5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 ACCESSIBILITY

The Property is located approximately 19 kilometres west-southwest of Sydney, Nova Scotia and approximately 2.5 kilometres southwest of the community of Frenchvale (Figure 5.1). Several roads connect the Property area to Sydney and to the rest of Canada, but the Property is most easily accessed via Frenchvale Road, which intersects Highway 125 at exit 4. The Frenchvale Road is an all-season, paved road maintained by Nova Scotia Transportation and Infrastructure Renewal. Alternate access includes the mixed paved and gravel-surfaced Bourinot Road and the paved Beechmont Road also maintained by the Nova Scotia Transportation and Infrastructure Renewal.

Two right-of-ways extending southeast from Frenchvale Road provide right-of-way access to portions of the Property. In addition to these, there are several other roads that provide access to the Property area on the conditions that permissions are obtained.

Figure 5.1: Frenchvale Graphite Property Access



5.2 CLIMATE

Cape Breton Island has a northern temperate climate, with seasonal temperature extremes moderated by the Atlantic Ocean, allowing for year-round access and exploration. Moderate snowfall and freezing temperatures are expected from December to mid-March with average temperatures of 0 to -15°C and summer temperatures ranging from 20 to 25°C (June to September). Both spring and fall exhibiting cool weather with intermittent rain.

Canadian climate normals and averages recorded from the climate station in Sydney, Nova Scotia between 1991 and 2020 indicate an annual daily mean temperature of 6.2°C. In summer, the average daily temperature reaches 18.4°C, and the average daily temperature is between -0.9 and -5.5°C from December to March. Precipitation averages approximately 1500 millimetres annually, and is lowest in the summer months. Snow averages 60 centimetres annually with most accumulated between November and March. Snow cover from January to March averages approximately 20 centimetres.

5.3 LOCAL RESOURCES AND INFRASTRUCTURE

The Property area is sparsely populated with most inhabitants living in rural communities or land parcels along the Frenchvale, Beechmont, and Bourinot Roads, and serviced by telephone and single-phase electrical power. A three-phase transmission line is located approximately four kilometres to the northeast of the Property. Ongoing activities in the area include farming, logging, and quarrying with local convenience, fueling, and retail services.

The former city of Sydney Nova Scotia is the second largest urban centre in the maritime provinces having a population of approximately 30,000 residents, and is supported by a hospital, university, domestic airport, deep water shipping facilities, and a skilled labour force.

5.4 PHYSIOGRAPHY

The topography of the Property area consists of broad ridges striking northeast along the length of the Property. Upland areas attain 215 metres above sea level, while the lowest point of land on the Property is approximately 35 metres above sea level.

There are several lakes and wetlands on the Property but are rarely more than five hectares in area. These, along with numerous tributaries of the Property, provide several water source options for exploration use. Frenchvale Brook occupies a northeast-striking linear depression north of the Frenchvale Road and flows northeast into Guthro Lake. Much of the area is covered with mixed forest, often secondary growth or recently logged.

Till and soil development is generally thin but evenly dispersed over the Property. Bedrock outcroppings are plentiful in many of the drainages, but can be rare in upland areas with the exception of northeast-trending ridges. The Property is estimated to have less than 10% outcrop exposure.

6 HISTORY

6.1 HISTORICAL EXPLORATION OF THE FRENCHVALE GRAPHITE PROPERTY

The early exploration history within the current Property centres on an iron deposit and base metal showings between 1890 and 1970, mainly south of Bourniot Road. The iron deposit was most often referred to as 'Currie's Mine' (sometimes 'Moseley Property') and is identified as Nova Scotia mineral occurrence K01-10: Currie Mine Pb-Cu-Fe Occurrence. In the 1950s attention shifted to a series of silver and base metal (Cu-Pb-Zn) occurrences in and around the Currie Mine and was collectively known as 'Rear Boisdale' (sometimes 'Steele Crossing' or 'Marsh Property'), identified as mineral occurrence K01-16: Rear Boisdale Ag-As-Au-Cu-Fe-Pb-Zn. The 1990s saw evaluation of the carbonate-rich host rock of the iron and base metal occurrences for industrial use in the Property area (Shaw, 1990a; Shaw 1990b).

Graphite occurrences found in the George River carbonates of the Property have been mentioned in the earliest of reports (Fletcher, 1877; Hoffman, 1879) and in later reports (Hill, 1987; Hill, 1989) covering the current Property, but were not a focus of exploration. The only graphite deposit documented by Nova Scotia on the current Property is mineral occurrence K01-49: Frenchvale/Gouthro Lake Graphite Prospect.

Historical exploration of the current Property was compiled by DeMont (1993) and MacNabb (2011). The history of exploration work conducted on the Property by previous owners, prior to Mt. Cameron Minerals in 1999, is summarized in Table 6.1.

Table 6.1: History of Exploration at the Property

Year(s)	Owner	Work Performed
c.1875	Lauchlin Currie	Discovery and development of hematite deposit on the farm of Currie, now mineral occurrence K01-10 (Fletcher, 1876)
1879	(unknown)	Evenly disseminated graphite south of Gouthro Lk (Mineral Occurrence K01-49) and along Frenchvale Road is described. Analysis of a characteristic sample contains 38.4% graphite (Hoffman, 1879)
c.1892	(unknown American company), Angus Currie	Excavation of several pits and trenches at Currie's Mine, and between 500 and 600 tons (453 to 544 tonnes) of hematite-rich rock are stockpiled. Main trench for the material is 100 ft (30.5 m) long and 15 to 25 ft (4.5 to 7.6 m) deep. Shaft sunk to 20 ft (6.1 m). Similar deposit developed on the Frenchvale Road (Anon, 1902)
c.1902	Edgar Mosley	Currie's Mine iron (red hematite) deposit worked out, and piled around 300 tons (272 tonnes) of 46 to 60% iron, pit filled with water (Anon, 1902)
1903	Dominion Iron and Steel Co	Pumped trenches of water at Currie's Mine, mapped geology, trenched, and sunk four shafts. Few new deposits are discovered. (Marsters, 1903)

Year(s)	Owner	Work Performed
1909	King Edward Exploration Smelting Refining and Milling Co.	Test pitting and 70 ft (21.3 m) shaft with two, 30 ft (9.1 m) drifts installed at Rear Boisdale in search of galena (Messervey, 1929)
1910	King Edward Exploration Smelting Refining and Milling Co.	Continued underground development and surface prospecting at Rear Boisdale.
1913	Nova Scotia Department of Mines	Four holes were drilled in search for iron for C. V. Wetmore near the Currie's Mine (Donkin, 1913; Donkin, 1914)
1917	(unknown)	Analysis of a characteristic sample from the Fe stockpile at Currie's Mine assays 56.8% iron (Lindeman and Bolton, 1917)
1951	Mina-Nova Limited	Six holes were drilled totaling 1351 ft (411.7 m): four at the main shaft at Rear Boisdale, one NE of Campbell Lake, and one 1.5 km NE of Rear Boisdale (Cole, 1951; Keating, 1951; DeMont, 1993). Resistivity is performed of the licenced area, reportedly 4 miles (6.4 km) long and 2000 ft (609.6 m) wide. Mapping and biogeochemistry is also performed (Masterman, 1956; Keating, 1951)
1956	Big Glen Mines Ltd. / Consolidated Northland Mines Ltd.	Completes a single drill hole totaling of 505 ft (153.9 m) on a conductor at Rear Boisdale (Steele Crossing) (Masterman, 1956)
1963	J. Coady Marsh	Ground EM and magnetometer surveying in the search for Pb-Zn-Ag mineralization at Rear Boisdale. Five holes were drilled (Shea, 1963; Milligan 1970), one in the area of the main shaft, and the other four along strike. Small amounts of sphalerite occur as disseminations in the limestone and dolomite (Wright, 1972)
1965	J. Coady Marsh	Lines re-cut and re-picketed, geological surveying, soil sampling the southern part of the property, assayed for heavy metals and copper (Marchant 1965; Anon, 1967)
1970	(unknown)	Detailed mapping of the Property, subdividing limestone units from dolomite units (Milligan, 1970)
1977	(unknown)	Report on tungsten mineralization of carbonate rocks of the George River Group; the highest tungsten sample in the Boisdale Hills from skarn rocks located around 380 m northeast of McLeans Lake (Chatterjee, 1977)
1993	(unknown)	The mineral occurrence K01-16 (Rear Boisdale / McAdams Lake Pb-Zn-Ag-Cu), K01-10 (Curries Mine, Iron Deposit), and K01-49 (Frenchvale / Gouthro Lake Graphite Deposit) was compiled, visited, and sampled by NS Department of Natural Resources staff as part of a regional mineral inventory program (1993, DeMont).

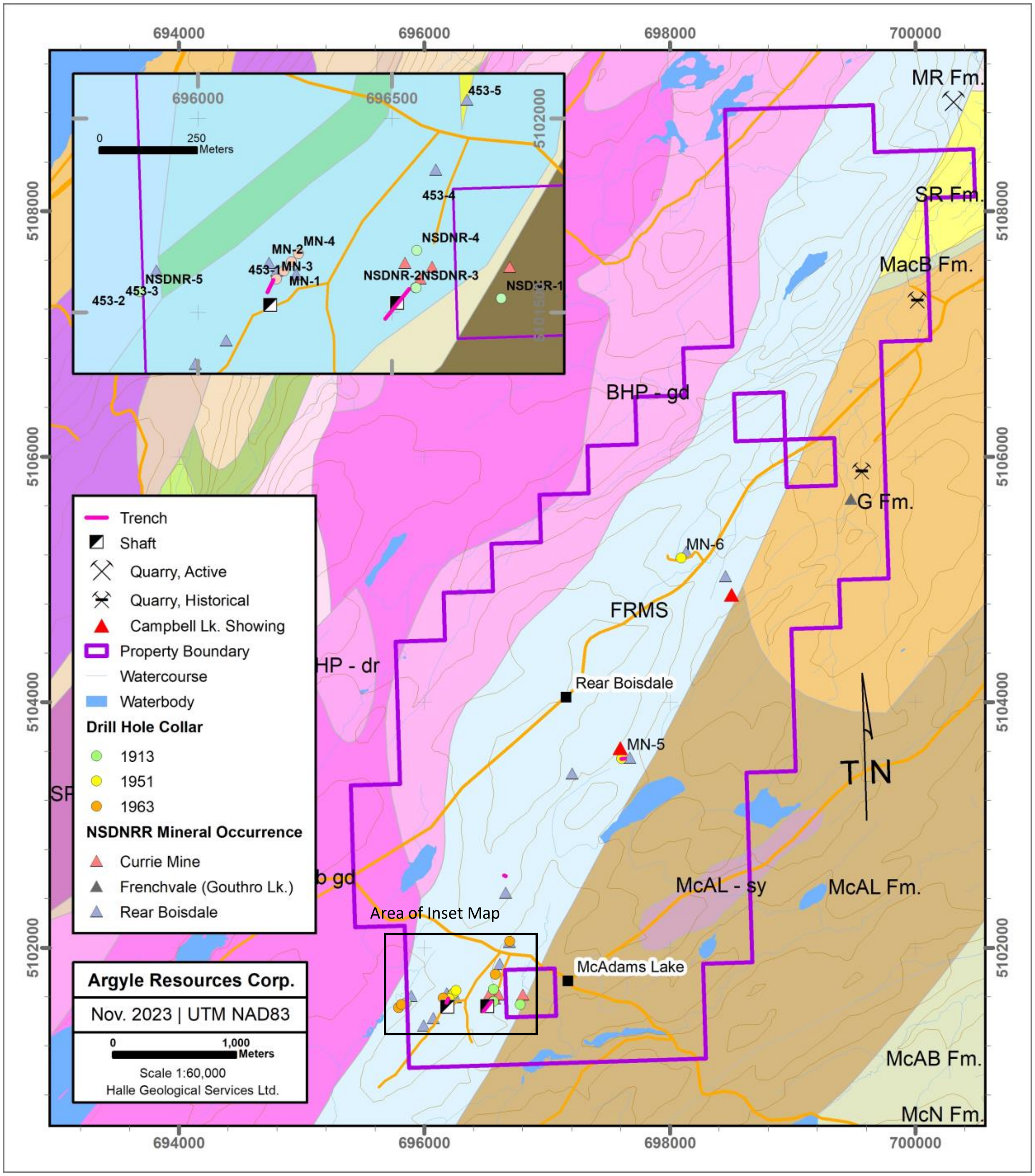
6.2 Historical Drilling

The history of drilling conducted at the Property is summarized in Table 6.2. Historic drill holes and trenches are shown in Figure 6.2, though the locations of several historic test pits are undocumented. The 1956 and 1963 drill logs show drill hole locations relative to the established surface grid, which was re-cut and picketed in 1965. The locations of the drill holes completed in 1913 were given relative to established built structures at the time so drill hole positions for this early drilling shown in Figure 6.2 may have considerable error. The location of the drill hole completed by Big Glen Mines Ltd. is undocumented.

Table 6.2: Historical Drilling at the Property

Year	Operator	Target	Number of Holes	Hole Type	Total Metres
1913	NS Department of Mines	Currie's Mine	5	DDH	412.4
1951	Mina-Nova Ltd.	Rear Boisdale	6	DDH	411.8
1956	Big Glen Mines Ltd.	Rear Boisdale	1	DDH	153.9
1963	J. Coady Marsh	Rear Boisdale	5	DDH	634.9

Figure 6.2: Historical Drilling and Trenching at the Property



7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGY

The following summarizes the regional geological setting sourcing published reports by Raeside (1989) and White and Barr (1998a). The regional geologic units of the area interpreted from White and Barr (1998b) were re-released in their 2017 regional map of Sydney with minor changes; the provisionally named Bras d'Or Gneiss of Raeside (1989) had changed to Bras d'Or Metamorphic Suite in White and Barr (1998a), then to Frenchvale Road Metamorphic Suite ("FRMS") in Barr and Kamo (1999).

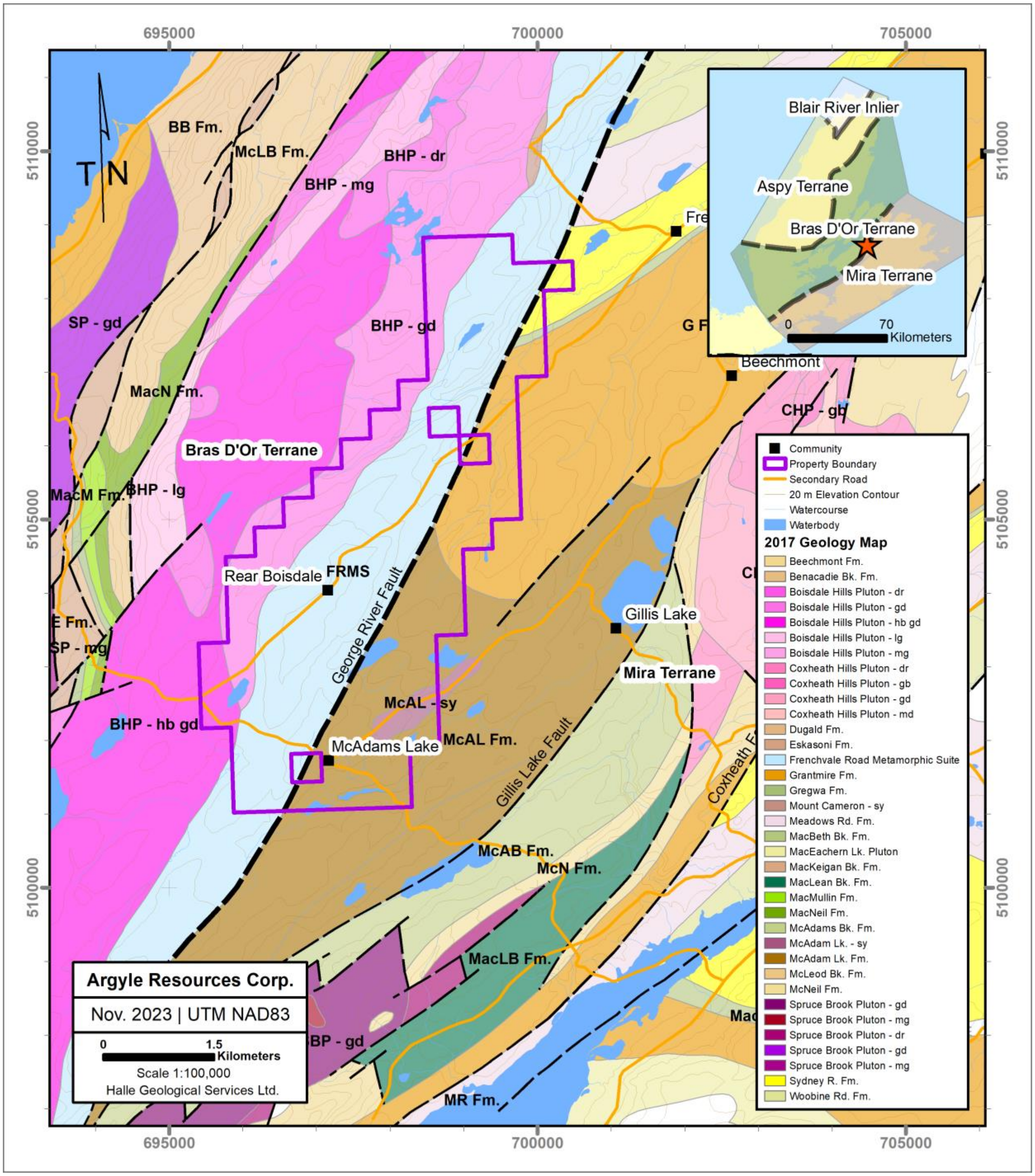
The island of Cape Breton is composed of four geologic terranes including the Aspy and Bras d'Or Terrane of Ganderia and the Mira Terrane of Avalonia (Figure 7.1, inset). The Property straddles the contact of the Bras d'Or and Mira Terranes, which are separated by the Georges River Fault.

The Bras d'Or Terrane includes several blocks of basement rocks that outcrop across central Cape Breton Island and in the southeastern Cape Breton Highlands (Figure 7.1). The terrane is distinguished by the occurrence of a suite of low-pressure gneisses and by rocks of the George River Group. Intruding into the Bras d'Or Terrane are large plutons of late Precambrian to early Cambrian age that appear to have been generated in an island arc setting.

Preliminary investigations indicate that the George River Group is restricted to the Bras d'Or Terrane, where it is typically at low metamorphic grade, except where it has been intruded by post-metamorphic plutons. Outcrops of low-pressure gneiss and schist of higher metamorphic grade have been reported in several parts of the Bras d'Or Terrane.

East of the George River Fault, the McAdam(s) Lake Formation of the Devonian—Carboniferous Sydney Basin, is fresh water arkose and conglomerate. The McAdams Lake Formation is bounded on the southeast by the Gillis Lake Fault, and is bounded on the northeast by an unconformable contact with red conglomerate, sandstone, and shale of the Grantmire Formation. The Gillis Lake Fault separates the McAdams Lake Formation from the Coxheath Hills belt. The Coxheath Hills belt consists of ca. 620 Ma basaltic, andesitic, and rhyolitic flows and tuffs of the Coxheath Hills Group, intruded by co-magmatic dioritic to granitic plutons and unconformably overlain by Cambrian to Ordovician sedimentary rocks.

Figure 7.1: Regional Geology Map of the Property Area



7.2 Local and Property Geology and Alteration

7.2.1 Geology

In 1989, the George River Group was divided into two distinct assemblages divided by the Boisdale Hills Pluton. Formations to the west, including the MacMullin, MacNeil and McLeod Brook formations, would be continued to be called the George River Group while those to the east were provisionally called the Bras d'Or gneiss (or Bras d'Or Metamorphic Suite), now the FRMS. The dominant rock types of the FRMS are marble, impure marble and calc-silicate rocks. Pelitic, semipelitic and psammitic rocks occur, but make up less than 20% of the suite, in contrast to the formations to the west.

Pure marble is common in the FRMS and is typically a coarse-grained white rock. Impure marbles typically contain some combination of diopside, forsterite or tremolite, with the forsterite commonly retrograded to serpentine.

Boisdale Hills Pluton, to the west, consists of a multitude of comagmatic intrusive plutonic phases ranging from diorite to leucogranite, though predominantly hornblende granodiorite. This Cambrian-aged pluton intruded the George River Group and FRMS (Barr and Setter, 1984).

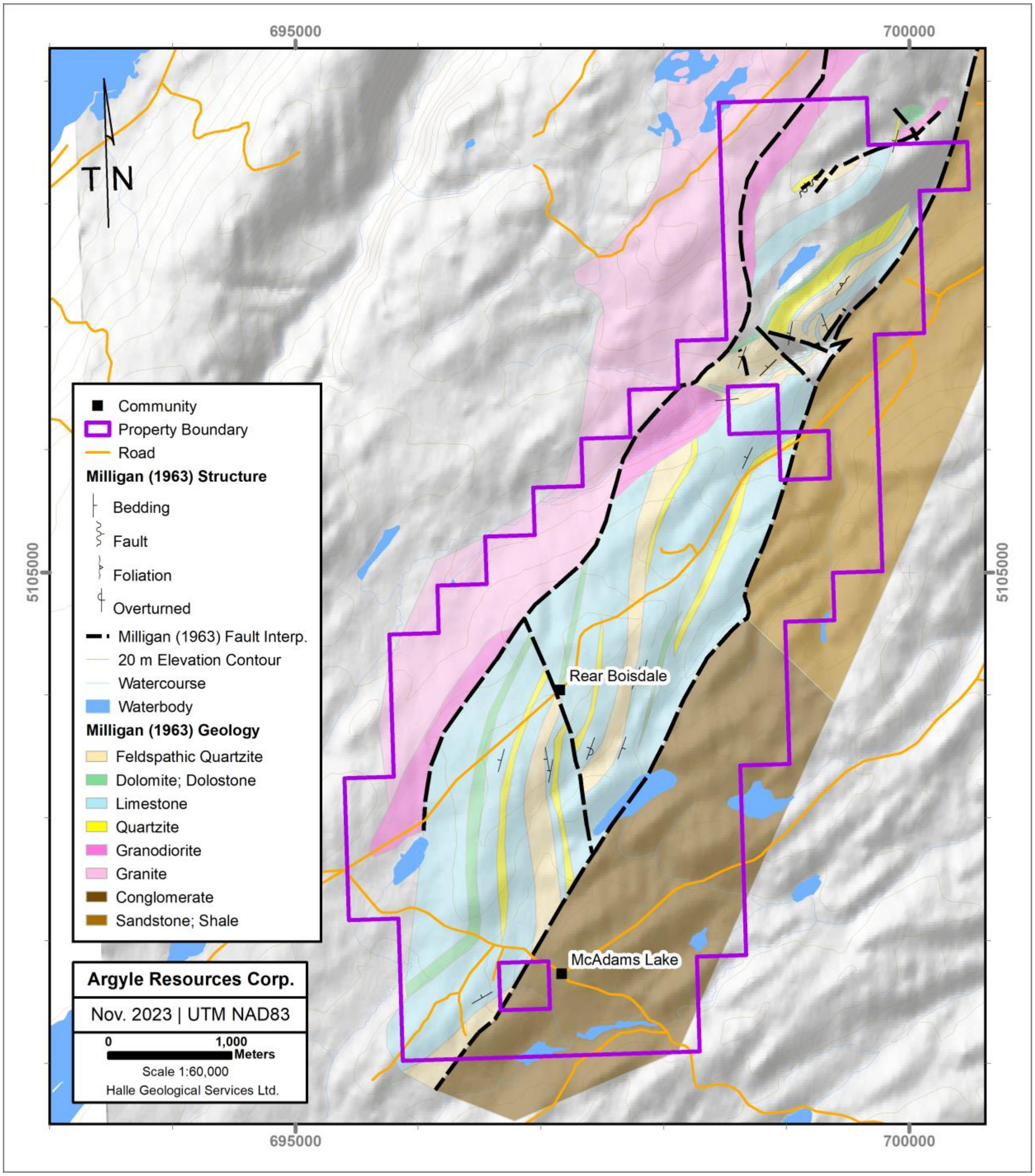
The McAdams Lake Formation consists of a lower member composed of green-grey to black sandstone, siltstone, shale, and minor conglomerate, and an upper member composed predominantly of grey conglomerate and sandstone, with minor black shale (White and Barr 1998a). The upper member of the McAdams Lake Formation is found along the length of the southeastern boundary of the Property, near Campbell Lake.

In unconformable contact with the McAdams Lake Formation, are the red conglomerates, sandstones, and shales of the Grantmire Formation, and underlie the northeast boundary of the Property, east of Frenchvale Brook.

In the southwest corner of the Property, a small stock of fine-grained quartz syenite occurs along the Beechmont Road (Figure 7.1) and is called the McAdam Lake Syenite. This intrusive rock is of Devonian age, somewhat coeval with the surrounding McAdam Lake Formation.

Milligan recognized the stratigraphy of the FRMS in 1963 and published his findings by 1970. His map is the inaugural interpretation of the geologic subunits throughout the Property area, and is reprinted in Figure 7.2.1, though Milligan admits "…it has been impossible, so far, to follow individual rock units for any distance" and that "…correlation was possible only over very restricted areas, and then with only very limited confidence."

Figure 7.2.1: Geological Map of the Property (after Milligan, 1963)



A report on geology, geochemistry, and mineral occurrences of metacarbonates of Cape Breton by Hill in 1989 included, in part, an interpretation of the geology of the Property area. Using geochemical results of at least 15 samples from the Property, Hill further subdivides metacarbonates of the Property as well as describes rare quartzite beds and pegmatite dikes found therein (Table 7.2.1).

Table 7.2.1: Lithologies of the Property (from Hill, 1989)

Unit	Name	Description
1,2ai	Dolomite to dolomitic marble	Medium- to coarse-grained, relatively pure carbonate rock, light grey to white; predominantly calcitic in composition with irregular, non-conformable dolomitic zones throughout; composed of 85% carbonate minerals and 15% silicate minerals including phlogopite, diopside, tremolite, olivine and serpentine, with accessory rutile, apatite and pyrite; calc-silicate minerals are present as porphyroblasts whereas micaceous minerals are distinctly foliated in the carbonate matrix
1,2af	Calcite marble	Fine- to medium-grained, dark grey and very faintly banded. The marble is predominantly calcitic in composition with irregular, non-conformable dolomitic zones; distinguished from Unit 1,2ai by colour and silicate mineral content (less highly siliceous; restricted in distribution to the southern quarter of the area).
1,2cd	Siliceous calcite to dolomite marble	Fine- to medium-grained, dark grey in colour, may be banded but usually massive in structure; calcitic and highly siliceous in composition but dolomitic zones are common; rare, clastic interbeds also present; composed of 40-70% carbonate minerals and 30-60% silicates including diopside, tremolite, phlogopite, pargasite, serpentine and olivine, with accessory pyrite, sphene, apatite and rutile; Ca-Mg silicate minerals are present as porphyroblasts commonly up to 1 centimetre in size whereas micaceous minerals are distinctly foliated in the carbonate matrix
6c,g	Clastic sedimentary rocks	An intimately interbedded sequence of greywacke and semipelite which underlies the carbonate rocks along the eastern edge of the area; narrow, discontinuous, impure quartzite interbeds found within the carbonate sequence as are rare calcareous argillites; composed of varying percentages of biotite, muscovite, quartz and plagioclase; north of Campbell Lake, metasemipelitic outcrops also contain andalusite
8i	Pegmatite	Ten metre wide dykes cross-cutting the metasedimentary rocks and consistently striking 035 degrees across the area for strike lengths of up to 2 kilometres

The geologic map by Hill suggests sedimentary bedding exists subparallel to the FRMS, in contrast to the locally north-trending units of Milligan (1970). Hills interpretation aligns with that of detailed mapping by Black (2005b) who interpreted multiple higher-grade graphitic horizons for several hundreds of meters along those orientations (Figure 7.2.2).

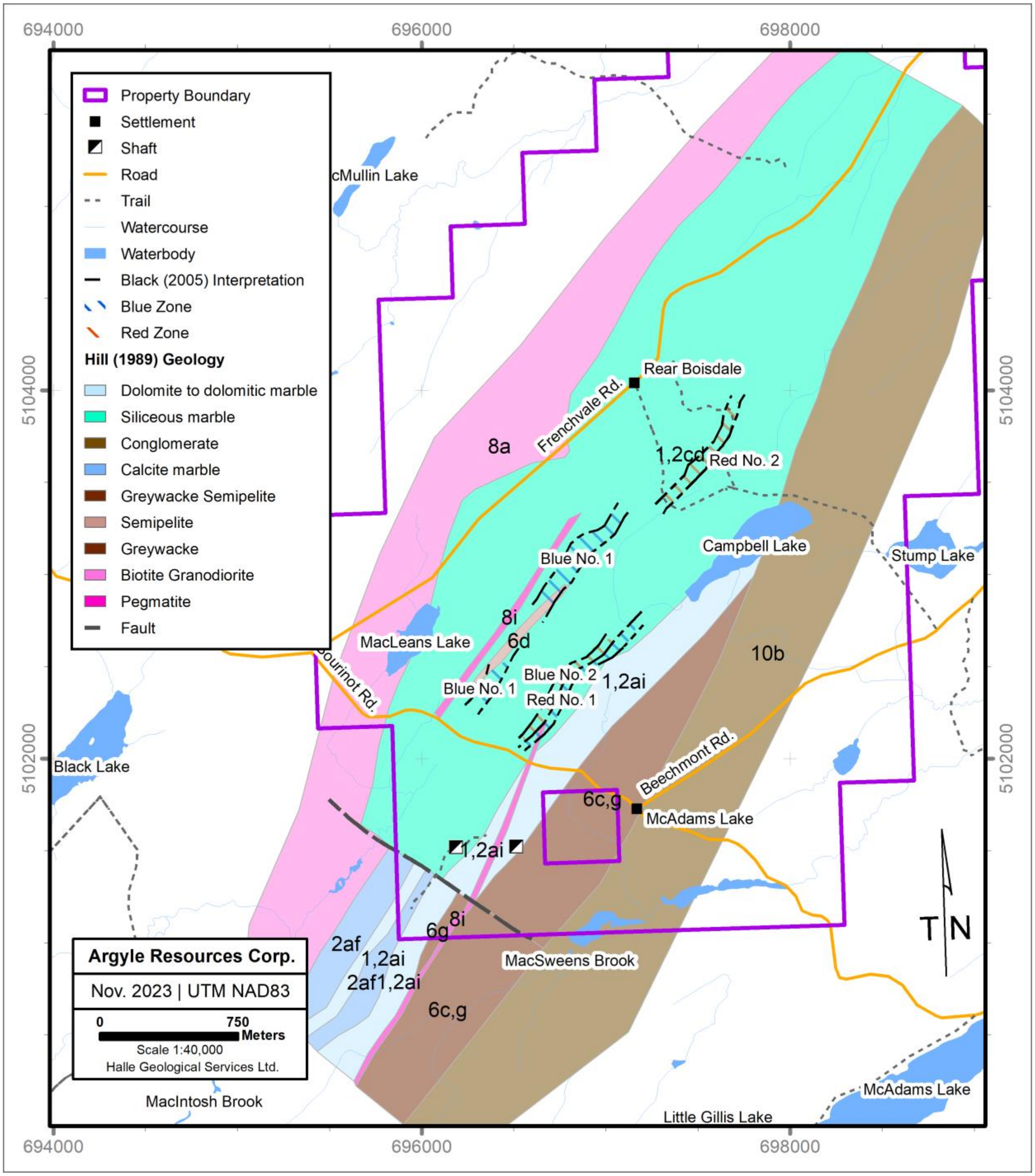
7.2.2 Metamorphism

The maximum prograde metamorphic assemblage in pelitic rocks of the FRMS is biotite, cordierite, sillimanite, plagioclase, orthoclase, quartz, ilmenite, magnetite and migmatites. In the dominantly calcareous rocks of the FRMS, low pressure, upper amphibolite facies assemblages occur, along with a scarcity of garnet-bearing rocks. Typically, they are diopside- or forsterite-bearing rocks, indicative of amphibolite facies metamorphism.

Retrograde metamorphism has been prevalent in much of the gneiss, resulting in development of secondary muscovite, sericite, pinite and chlorite.

The recognition of several outcrop areas of high-grade, low-pressure gneiss in the Bras d'Or Terrane indicates that a regional high heat flow event was responsible for the metamorphism, as suggested by Northcote et al. (1989).

Figure 7.2.2: Geologic Map of the Property (after Hill, 1989)



7.2.3 Structure

In addition to possibilities to explain the regional structure of the George River carbonates, Milligan (1970) describes the entire belt of rocks as a single fold limb, turned up on edge. Milligan describes minor folded structures near Sandy McCloud Lake, a location of structural complexity including antiforms and synforms parallel to the belt, along with a west-plunging fold axis. Hill (1989) has a similar assessment of a homoclinal sequence of moderately westward-dipping units. The complexity in stratigraphy, he writes, is more likely due to compositional variations reflecting the original sedimentary environment than post-depositional tectonism.

Carboniferous faulting includes parallel faults now controlling drainages such as Frenchvale Brook and Gouthro Brook (west of Gouthro Lake), as well as northwest-trending faults, examples being those south of Sandy McCloud Lake, west of Campbell Lake, and another that juxtaposes siliceous from non-siliceous marbles at the southwest end of the Property (Figures 7.2.1 and 7.2.2).

7.3 METALLIC MINERALIZATION

The Nova Scotia database of mineral occurrences lists three groups of mineral occurrences within the current boundaries of the Property. They are: occurrence K01-10 (Currie Mine), K01-16 (Rear Boisdale), and K01-49 (Gouthro Lake Graphite). The metallic mineral occurrences of the Property exhibit characteristics of skarn deposits (Hill, 1987).

7.3.1 Fe-Cu-(Pb) Skarn

Lindemon and Bolton (1917), give a good account of the iron deposit of the Currie Mine, and is excerpted here:

> The orebody lies in crystalline limestone of Precambrian age, the general strike of which is N. 70°E., dipping vertically, or at a high angle, towards the south. In several places near the ore-body a pegmatitic granite is seen to intrude into the limestone, while farther to the south, Carboniferous conglomerates overlie the older rocks.
>
> The principal workings consist of an open-pit, 110 by 14 ft [33.5 by 4.2 m], from which several hundred tons of good ore have been taken and piled up nearby. The ore-body is reported to have had a width at the surface of from 5 to 9 ft [1.5 to 2.7 m], but it pinched out at a depth of 12 ft [3.7 m]. Later attempts to find the ore at greater depth by diamond drilling have also failed. About 75 ft [22.9 m] northeast of the main working a small pit and a trench expose limestone but no ore, and all that can be seen of the ore in place are a few narrow veins of

> hematite in limestone at the west end of the main pit, ranging in width from 2 to 8 inches [5 to 20 cm].
>
> The ore is a massive hematite of good quality, as shown by the following analysis, representing an average sample of the stock pile: 56.79% iron, 12.75% insoluble, 0.008% phosphorus, sulphur 0.022%.

7.3.2 Pb-Zn-Ag-Cu-W-(Au) Skarn

Goranson's Ph.D. thesis completed in 1933 gives a detailed description of the Rear Boisdale occurrence near the main shaft:

> The country rock in which the mineralization occurs is a medium-grained, crystalline dolomite of the George River Series; the rocks strike northeast and dip steeply either to the northwest or southeast. Outcrops on either side of the shaft dip towards the latter and indicate that the structure at or near the ore body is a syncline. A small ore dump occurs near the shaft and from examination of the ore the mineralization is seen to consist of pyrite, dark sphalerite, and a small amount of chalcopyrite, and galena. The ore is either rudely banded or occurs in irregular masses. The accompanying gangue mineral is fine-grained quartz in small amount. The galena looks sheared and distorted, as if it has been subjected to some movement subsequent to its deposition. Small values in silver are reported to accompany the ore. Intrusive rocks occur about 1500 ft [457.2 m] north of the shaft and pegmatites are found close to the shaft cutting the dolomite.

Hill (1987) gives an account of his visit to the main shaft of the Rear Boisdale occurrence. His sample from the ore pile near the shaft returns anomalous in gold, assaying 0.029 oz/ton (0.99 g/t) Au, 1.78 oz./ton (61.02 g/t) Ag, 50 ppm Sb, 48 ppb Hg with 11% Zn and 4.7% Pb.

In 1989, Hill describes an Pb-Zn occurrence called Campbell Lake. His description is similar to the Rear Boisdale-type mineralization where Cu-Pb-Zn occurs "in scattered siliceous calcite marble and dolomitic metapsammite outcrops…[and]...contain a metamorphic mineral assemblage composed of tremolite, phlogopite, pargasite, diopside with accessory chlorite, apatite, spinel and rutile." Psammitic units associated with the carbonate rocks are characterized by an andalusite-bearing mineral assemblage. His map records the location of the occurrence at the large pit 1.6 kilometres northeast of the village of Rear Boisdale (Figure 7.4). This location is in contrast to the location of the showing of the same name given in his 1987 report, that places it 625 metres southeast of the village of Rear Boisdale. All of these occurrences are collectively known by the NSDNRR as the Rear Boisdale occurrence, with some 14 dispersed locations for this occurrence, with most being in close proximity to the Currie

Mine occurrence (Figure 7.4, inset).

7.4 GRAPHITE MINERALIZATION

Few reports have documented graphite mineralization within the FRMS. Other than the early reports, still-unlocated graphite showing of Fletcher and Hoffman and mentions of disseminated graphite in host rocks reported by Hill (1987; 1989), the only descriptions of graphite mineralization on the Property arises from the work of Mt. Cameron Minerals Ltd.

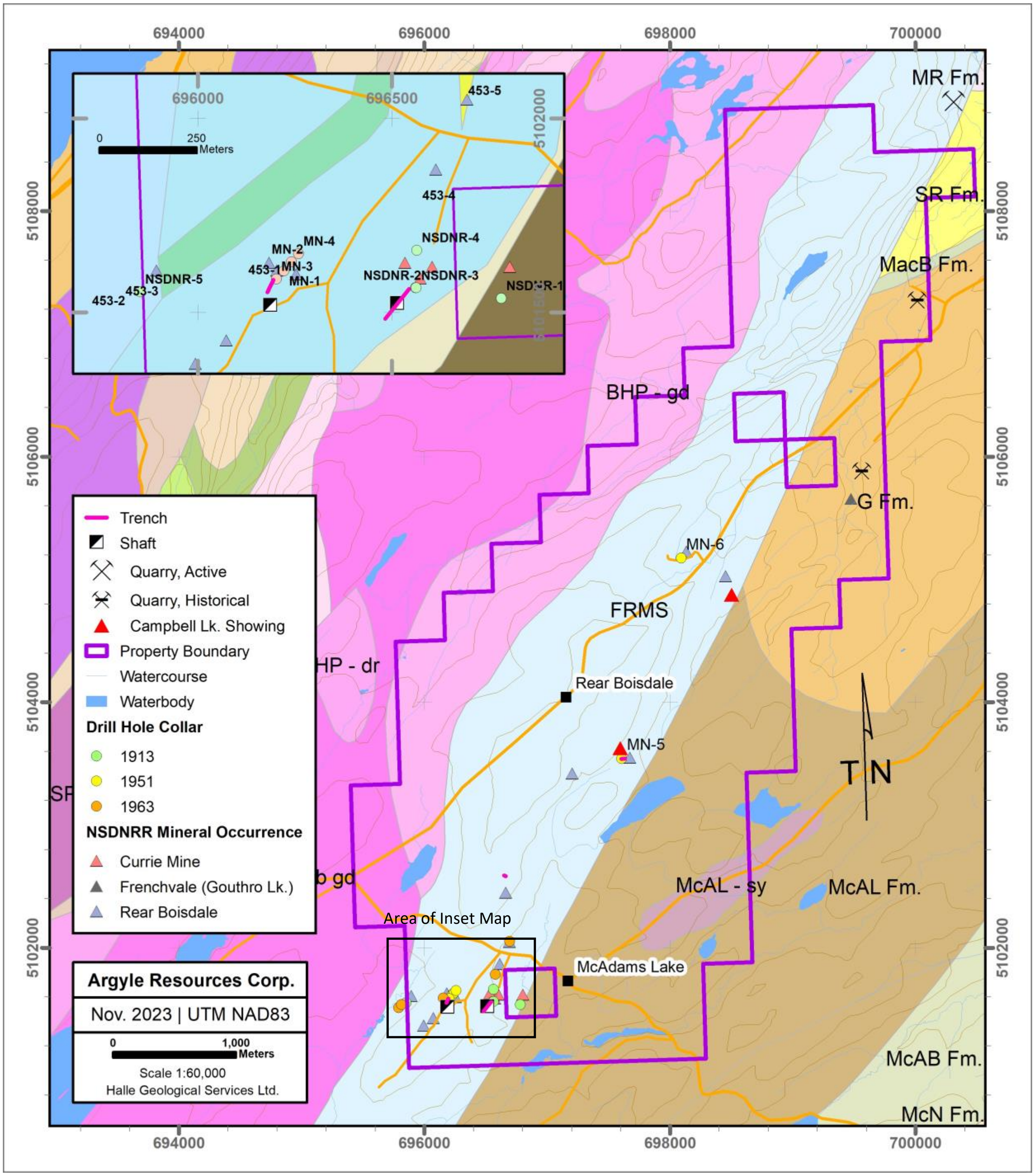
The Gouthro Lake graphite occurrence is documented by descriptions by Fletcher (1877) and Hoffman (1879) who describe stratiform horizons of disseminated graphite within calcareous shale near the northern area of the Property. An unknown amount of development of the prospect was reported. DeMont's (1995a) mineral occurrence report places a location of the occurrence (Figure 7.4) but concedes the actual location is unknown.

In 2005, Black wrote of two graphite occurrences on the Property. The first outcrops on the bank of Frenchvale Brook approximately 250 metres southwest of the contact with Grantmire Formation rocks. At this location, Black describes a 75 foot (22.9 metre)-wide zone of amorphous and flake graphite in a north-northwest-trending fault zone cutting marble and mica schist. This site was explored with undocumented pits, and later with trenches (Wightman, 2017).

The second occurrence described by Black (2005b) is in the area between Rear Boisdale and Campbell Lake and south to the Bourniot Road. He describes disseminated, coarse-grained graphite in white and grey marbles interbedded with mica schist, and cross-cut by swarms of northwest-trending pegmatitic dikes. His mapping efforts from the same time interpreted four prospective graphite-bearing horizons with relatively low sulphide abundance. All four horizons were described as medium- to coarse-grained white marbles with grey banding. One horizon termed "Red No.1" shows conspicuous serpentine and pyrrhotite. Black (2005b) observed the grey banding resulted from a higher percentage of graphite when compared to white banding.

Prospecting by Black in 2008, subdivided the FRMS of the Property into two types of marble, dominated by a micaceous, tremolitic marble (that may or may not have appreciable graphite) and a subordinate marble that does not contain appreciable graphite. The results from a trench installed across the schistosity in 2008 approximately 500 metres south of Rear Boisdale spurred diamond drilling at that location. Encouraging graphite assay results from these drill holes was followed by the drilling of 10 drill holes in 2010, and two drill holes in 2023.

Figure 7.4: Mineral Occurrences, Historical Drilling and Quarries at the Property



8 DEPOSIT TYPES

8.1 GRAPHITE DEPOSITS

The Property has the potential to host a significant flake graphite deposit. North American graphite deposits have been classed into five types by Cameron and Weis (1960):

1. Disseminated flake graphite in silica-rich metasediments
2. Disseminated flake graphite in marble
3. Metamorphosed coal and carbonaceous sediments, yielding amorphous graphite
4. Veins
5. Contact metasomatic or hydrothermal deposits in metamorphosed calcareous sediments or marble

Most of the flake graphite deposits of the United States have been classed as type 2 or type 5 (Cameron and Weis, 1960). MacKinnon and LeBaron (1992) give excellent descriptions of type 2 and type 5 graphite deposits, transcribed below:

> Flake graphite occurs in metasediments as the result of conversion of organic matter in the original sediment to graphite by regional or contact metamorphism. Carbonaceous material in the sediment changes to amorphous graphite under zeolite facies metamorphism and to crystalline graphite in the amphibolite facies. The distribution and amount of graphite in the rock generally reflects the amount of original carbon in the rock. However, there is clear evidence of epigenetic deposition in the form, of crosscutting veins, replacement deposits and metamorphic segregations, which presents problems involving the [exact] mechanisms of mobilization, transportation and redeposition of the graphite.
>
> Graphite is a common accessory mineral in marbles, generally comprising less than 1 weight percent of the rock. Many blue- or grey-tinted marbles derive their colour from very minor amounts of disseminated, microcrystalline graphite. Less commonly, graphite occurs as flakes disseminated throughout a marble unit in concentrations ranging from 2 to greater than 20%, usually defining a foliation and ranging in grain size from less than 1 mm to greater than 1 cm. These deposits are similar to disseminated flake graphite deposits in silica-rich metasediments (type 1), but are generally more variable in grade, structure and mineralogy because of the greater ductility of the marble host rocks. They are, therefore, generally smaller deposits and, with respect to current world production, are of considerably less economic importance than are the type 1 deposits.
>
> [Contact metasomatic or hydrothermal] deposits occur in skarn or altered marbles and exhibit characteristics grading from the disseminated flake type to the vein type of graphite. They are generally higher in grade but of lower tonnage than the disseminated flake type, commonly

consisting of massive, graphite-rich pods and lenses in the marble host rock.

The marble-hosted graphite at the Property is consistent with the descriptions of both type 2 and type 5 deposits. Detrital layers common to type 1, occur at the Property but are uncommon. Type 3 graphite deposits most often yield amorphous graphite, and Type 4 exhibit graphite which fill voids and cracks.

Graphite occurrence is typically described in three physical sizes:

1. Amorphous (powdered) graphite: a microcrystalline graphite formed by crystallization of the carbon from organic sediments such as coal. The graphite occurs as distorted seams of minute microcrystalline particles intermixed with ungraphitized carbon.
2. Vein (lump) graphite: occurs in the form of massive vein or acicular accumulation probably formed from hydrothermal origin. The graphite occurs along the contacts of intrusive rocks with limestone. Such occurrences appear in foliated or columnar forms.
3. Flake graphite is found disseminated in metamorphosed siliceous or calcareous sedimentary rocks such as marble, gneiss and schist.

Two other graphite prospects are documented by the NSDNRR as mineral occurrences in Cape Breton: Rear Christmas Island (being mined for shaley graphite during a brief period in the late 1800s), and McColls Brook/River Denys Road (an amorphous graphite showing hosted in a sliver of the George River Group rocks).

Though the mineral occurrence near Glendale, Nova Scotia is noted by the NSDNRR as a limestone and dolomite deposit, it was also mined for its amorphous graphite in the late 1800s. Historic work outlined an over 3000-foot strike length of graphite mineralization, and is described briefly by Hill (1989) as “at least two highly-deformed, carbonaceous to graphitic and pyritic schist zones, 100 metres wide, in black, cryptocrystalline limestone and siliceous dolostone.”

Commercially, natural graphite is classified as crystalline flake or amorphous graphite depending on particle size. Crystalline flake is defined as thin flakes which could be classified from coarse to fine and which are graded according to their graphitic carbon content. Amorphous grade is applied to microcrystalline graphite sold for low value uses such as foundry facings. It is graded on graphitic carbon content which may vary from 50-90%.

Flake graphite deposits in marble hosts are found in southeastern Ontario in the Grenville geologic province. Typical of these graphite deposits are proximity to a major fault, association with paragneiss units interlayered with the host marble and the presence of pegmatite bodies. Most occurrences show strong deformation and are highly variable in dimensions and attitude.

These occurrences exhibit features which suggest that the graphite has formed from organic matter in the original sediment (as disseminated flakes) and that some remobilization and local concentration (graphite-rich pods and lenses) has occurred, possibly the result of contact metasomatism and/or ductile deformation (MacKinnon and LeBaron, 1992).

8.2 SKARN DEPOSITS

Metallic mineralization was the focus of mineral exploration in the Property area prior to 2005. The presence of skarn mineralization is widespread on the Property and is considered relevant for planning future graphite exploration.

Marble-hosted metallic mineralization can be classified according to metal association, paragenetic criteria, form and distribution of mineralization, and lithological association. Two major categories were defined by Hill (1989):

1. Polymetallic Skarn: Mineralization appears to be related to a discrete contact metamorphic and metasomatic event and may be both carbonate-hosted and intrusive-hosted. Calc-silicate lithologies indicative of local metamorphic grades higher than the regional grade are intimately associated with mineralization. Occurrences of this type are further subdivided according to metal association into:
   a) Fe + Zn, Cu skarn
   b) Fe + Cu ± W, Mo, Sn skarn
   c) Pb + Zn + Ag + Au, Cu skarn
2. Stratabound: Mineralization is generally restricted to a discrete carbonate unit. It is neither related to a definable contact metamorphic event nor is it associated with calc-silicate-bearing marble lithologies of higher metamorphic grade than the regional grade. Occurrences of this type can be further subdivided according to morphology and metal association into:
   a) stratiform Zn or Fe
   b) irregular disseminated Cu-Pb-Zn

In this classification system, skarn deposits are defined as metallic mineral concentrations associated with (Ca, Mg, Fe, Al, Mn)-bearing calc-silicate minerals formed during the metasomatic replacement of carbonate-rich rocks by magmatic hydrothermal fluids. Although a majority of the metacarbonate-hosted metallic mineral occurrences examined during the study are associated with calc-silicate-bearing marble lithologies, a genetic distinction is made in the classification system which distinguishes between skarn-hosted mineralization that appears to have been derived from magmatic hydrothermal processes related to a contact metasomatic event (polymetallic skarn deposits) and mineralization which shows no apparent relationship to contact metamorphism + metasomatism (stratabound deposits).

In Hills classification scheme above, the skarn occurrences of Rear Boisdale are classed as 1c, while those of the Currie Mine are classed as 2a.

9 EXPLORATION

The history of exploration of the Property includes geological mapping, geochemical sampling, and diamond drilling as described in Section 6 (History). Exploration work conducted by Mt. Cameron on the Property is summarized below.

Table 9.1: History of Exploration by Mt. Cameron at the Property

Year	Work Performed
1999	Reconnaissance and detailed prospecting for Au, Cu, Ni and PGEs; graphite showing re-discovered at Frenchvale Brook (Black, 1999)
2000	Prospecting and sampling around Rear Boisdale and the Currie Mine for Au and base metals (Black, 2000)
2005	Mapping and prospecting an area west of Campbell Lake for graphite; 13 samples of historic drill core from 1963 (453-1, -4, and -5) submitted for graphite content; preliminary metallurgical testing on composited sample (Black, 2005b)
2008	Conestoga-Rovers & Associates complete a mine permitting scoping study for a flake graphite mine on the Property, concluding favorable potential for permitting within a 24-month period (Oram and Hoeg, 2009)
2008	A total of 9.5-line km of IP/Resistivity (lines spaced at 100 metres) completed by Matrix GeoTechnologies northwest of Campbell Lake; mapping and sampling; a 25-metre-long trench installed on L10, and a 50 tonne sample taken and crushed, from which a 4 tonne sample was shipped to MEC for analysis; four diamond drill holes totaling 407 metres completed and 139 drill core samples submitted; 17.5 line kilometres of VLF-EM geophysics (Black, 2010)
2010	Technical report prepared on the Property concluding potential to host a significant graphite deposit (MacNabb, 2011)
2010	LiDAR-derived elevation data acquired by Leading Edge Geomatics over the Property (Wightman, 2011a)
2010	Ten diamond drill holes totaling 1,232 metres completed west of Campbell Lake and along-strike southwestward of 2008 drilling and 203 drill core samples submitted (Wightman, 2011b)
2017	Dynamic Discovery Geoscience conducts a heli-borne magnetic and TD-EM survey at 50 metre spacing over the Property totaling 17.5 line-km (Dubé, 2017); 25 drill core intervals from 2010 drill core are resampled
2017	3 trenches totaling 143 metres over graphitic fault zone rediscovered by Black (1999) (Wightman, 2017)
2021	A single diamond drill hole totaling 338 metres north of Sandy McLeod Lake, 5 km from Main Zone (Wightman, 2023)
2023	Two diamond drill holes totaling 802 metres at the Main Zone, ten samples submitted for physical property analysis
2023	Hyperspectral scanning memo on select drill holes from Property (Verge and Aali, 2023)

Early on, Mt. Cameron shifted from the exploration of gold, nickel, platinum group elements, and base metals to graphite. Historic drill core from conductors of the southern portion of the Property was tested for graphite content, historic graphite showings were prospected, and new graphite discoveries were made. In 2008, a new graphite discovery in a boulder spawned a single trench, ground magnetics and IP, and inaugural drilling of four drill holes over what is now called the Main Zone. Preliminary graphite liberation tests were performed on bulk excavations from the trench at MEC, and mine scoping studies were completed by an engineering firm in 2009. In 2010, drilling of ten drill holes along the strike extension of the recognized graphitic horizon was accompanied by LiDAR elevation data acquisition. Ongoing encouraging results prompted airborne TDEM surveying over the entire Property and several additional targets were drill-tested in 2021 and 2023.

Sampling methods and sample quality are considered industry standard for the level of Property exploration at the time. The bulk sample from a single location submitted for metallurgy may not be representative of mineralization at the Main Zone. Drill core sample intervals were sporadic and chosen based on visual estimation of graphite, sometimes missing relatively higher-grade graphite intervals. Qualitative aspects of graphite, such as purity, are impossible to ascertain macroscopically, contributing to sample bias.

Composited intervals from drill core assays with accepted QA/QC are given in Table 10.3. Sampled intervals may not be representative of true widths.

10 DRILLING

Drilling conducted by Mt. Cameron on the Property is summarized in Table 10.1.

Table 10.1: Summary of Drilling at the Property

Year	Location	Number of Holes	Hole Type	Total Metres
2008	Northwest of Campbell Lake	4	DDH	407
2010	West of Campbell Lake	10	DDH	1,232
2021	North of Sandy McLeod Lake	1	DDH	338
2023	West of Campbell Lake	2	DDH	802
			TOTAL	**2,779**

Maritime Diamond Drilling of Hilden, Nova Scotia performed all 2,779 metres of drilling at the Property, producing HQ-sized drill core in 2008 and producing NQ-sized drill core in 2010, 2021, and in 2023. All drill core is stored at the NSDNRR drill core library and storage facility in Stellarton, Nova Scotia.

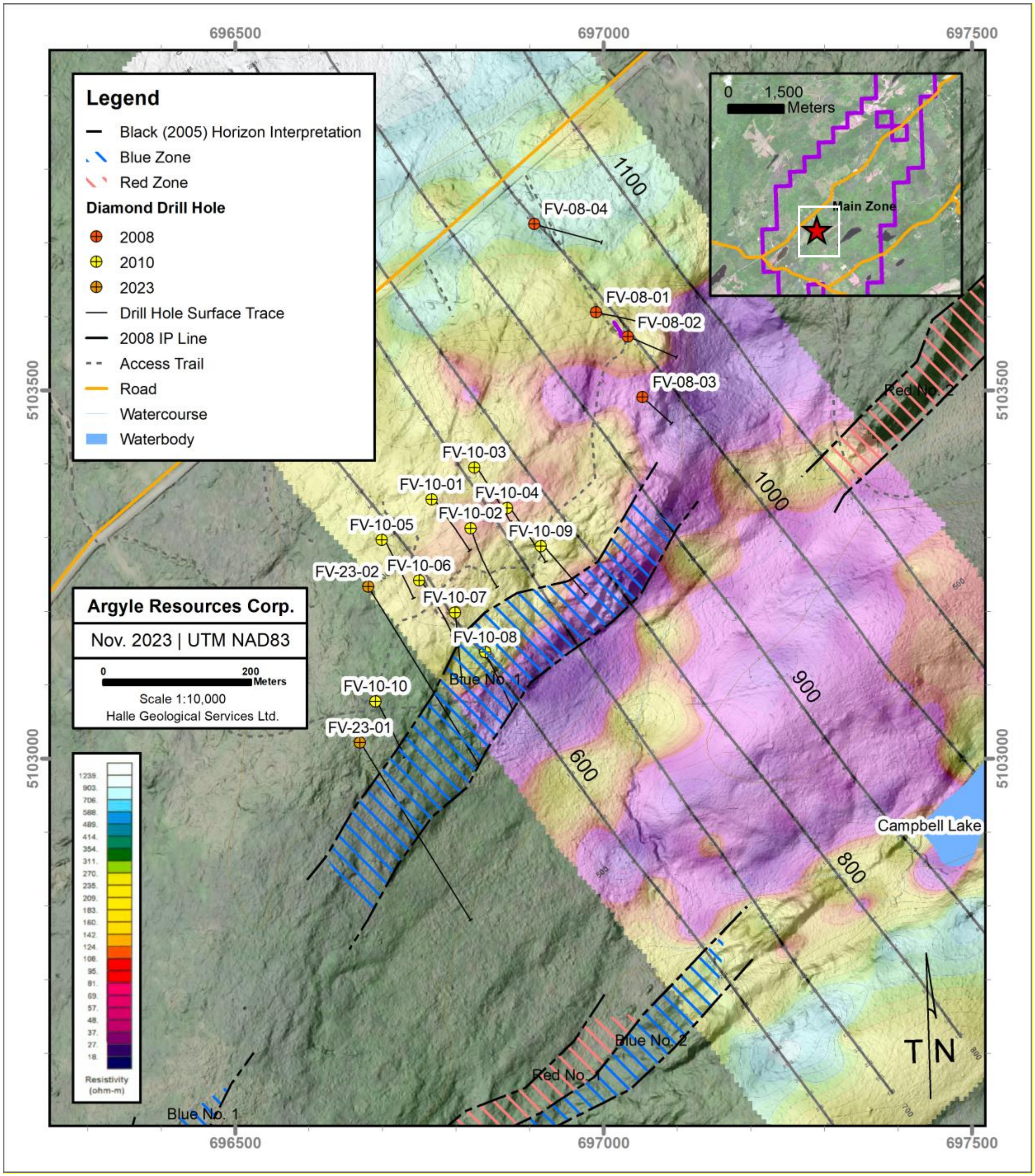
Of the drilling performed in 2010, MacNabb (2011) stated "samples are collected on the Property and remain in the possession of personnel of Mt. Cameron Minerals until delivery to the laboratory."

Figure 10.1 shows the drill hole locations at the Main Zone completed to date, and Table 10.2 summarizes drill hole parameters completed by Mt. Cameron on the Property.

Table 10.2: Drill Hole Details at the Property

Drill Hole Name	Easting, m	Northing, m	Azimuth, TN	Plunge, degrees	Total Depth, m
FV-08-01	696990	5103606	110	-46	98
FV-08-02	697033	5103573	110	-44	100
FV-08-03	697053	5103491	135	-45	75
FV-08-04	696906	5103726	110	-45	134
FV-10-01	696768	5103355	145	-45	125
FV-10-02	696820	5103313	145	-45	125
FV-10-03	696826	5103398	145	-45	125
FV-10-04	696872	5103342	145	-45	125
FV-10-05	696702	5103298	145	-45	125
FV-10-06	696750	5103244	145	-45	125
FV-10-07	696798	5103199	145	-45	125
FV-10-08	696838	5103145	145	-45	107
FV-10-09	696918	5103290	145	-45	125
FV-10-10	696691	5103080	145	-45	125
MC-21-01	699187	5107985	140	-45	338
FV-23-01	696670	5103022	150	-45	401
FV-23-02	696680	5103234	150	-45	401

Figure 10.1: Main Zone Drilling at the Property with 2008 Resistivity



Drill logs from drill campaigns in 2008, 2010, and 2017 record neither drill core recovered nor rock quality designation ("RQD"). Drill logs from the drill campaign in 2023 record partial RQD exhibiting significant broken sections related to fault zones. Graphite is a very soft mineral and significant grinding and associated drill core loss, especially within graphitic fault zones, should be expected and assessed. The lack of drill core recovery and RQD data could potentially impact the accuracy and reliability of results.

Composited intervals of graphite assays from drill campaigns with accepted QA/QC (refer to Section 11.2 and 12.2) are given in Table 10.3. Sampled intervals may not be representative of true widths as the orientation of the mineralization is unknown.

Table 10.3: Composited results from Drill Hole Assays of the Property

Drill Hole Name	Graphite, %		Interval, m	From, m	To, m
FV-08-01	4.86	over	18.55	17.50	37.55
including	5.51	over	6.00	19.00	25.00
FV-08-01	5.75	over	3.35	32.70	36.05
FV-08-01	1.46	over	4.00	76.00	80.00
FV-08-01	2.18	over	14.50	81.70	96.20
FV-08-04	1.52	over	10.50	15.50	26.00
FV-08-04	1.17	over	16.50	44.00	60.50
FV-23-01	2.65	over	2.95	365.25	367.10
FV-23-01	5.99	over	0.17	379.83	380.00
FV-23-01	2.04	over	3.53	384.17	387.70
FV-23-01	4.33	over	3.30	397.70	401.00
FV-23-02	1.77	over	5.26	97.20	102.46

11 SAMPLE PREPARATION, ANALYSES AND SECURTY

Sample preparation and security for all prospecting and drilling programs on the Property is viewed by the Author to be in accordance with industry standards at each respective stage of Property exploration.

Sample assay results from the base metal prospecting program of 1999 and 2000, and the drilling programs of 2008 and 2023 passed their respective laboratory QA/QC programs so results are considered reliable for exploration. Results from homogenized drill core samples from drilling in 2021 analyzed with a portable XRF instrument are also considered reliable for purposes of exploration in a narrow range of metals including Fe, Cu, Zn, Mo, Pb, and W, but does accurately quantify carbon.

Sample results from drill core submitted from the drill core resampling program of 2005 do not disclose QA/QC results and should be verified prior to use. Assay results from drill core samples of the drill program of 2010 cannot be relied upon resulting from a failing QA/QC program. Assay results from the drill core resampling program of 2016 lack reporting of certified reference standards so estimates from this program should be verified prior to use.

The following subsections elaborate on sample preparation and security for each program, followed by a description of analysis methods and QA/QC results of each program.

11.1 SAMPLE PREPARATION AND SECURITY

11.1.1 2005 Resampling Program

Black (2005b) reports that 75 feet (22.9 m) of core was cut and submitted to MEC for graphite analysis. Results show assays were returned from thirteen samples, each 5 feet (1.52 m) long. Selections of drill core from two other drill holes from the same era were cut and submitted for analysis but data was not reported.

11.1.2 2008 and 2010 Drill Program

Reports on diamond drilling from Black (2010) and Wightman (2011b) do not discuss drill core sampling methodologies employed during their respective programs. Drill core logs were prepared by Don Black, a geologist and employee of Mt. Cameron Minerals. No drilling or drill core photographs were made available to the Author.

All drill core from the 2008 and 2010 programs are in storage at the drill core library and storage facility in Stellarton, Nova Scotia, operated by the NSDNRR. During due diligence review at the drill core library and storage facility by the Author, pre-described intervals from drill hole

FV-10-05 and -06 were found to be sampled along the length of the core axis with the use of a manual splitter. Sample tags, written with sample starts and ends, were stapled to the beginning of each sampling interval. The entire length of these drill holes were not sampled for assay, and not all sampled intervals were assayed.

The Author has no reason to suspect that sample preparation and security for drilling in 2008 and 2010 were not in accordance with industry standards for the time and at the current stage of Property exploration.

11.1.3 2021 Drill Program

The location of the lone drill hole was recorded with a GPS in UTM format. Some 27 sampled locations were cut, bagged, sealed, and transported to Activation Laboratories Limited's ("Actlabs") preparation laboratory in Fredericton New Brunswick, where samples were homogenized. Pulp samples were returned to the Mt. Cameron Minerals in Bridgetown Nova Scotia for analysis by portable x-ray fluorescence ("XRF") analyzer (Wightman, 2023).

The author has no reason to suspect that sample preparation and security for drilling in 2021 was not in accordance with industry standards for the time and at the current stage of Property exploration.

11.1.4 2023 Drill program

The Author visited the drill core storage facility during a period of active logging and sampling of 2023 drill core. Sample tags, written with sample starts and ends, were placed at the beginning of each sampling interval by the logging geologist, Dr. Clifford Stanley, Professor of the Department of Earth and Environmental Science at Acadia University in Wolfville Nova Scotia, with assistance from Don Black. Drill core intervals identified for sampling were cut at the storage facility with a drill core saw and placed in a poly bag labelled with the unique sample number. The duplicate portion of the sample tag was placed in the bag then sealed with a zip tie. Samples were sent by accredited courier to Actlabs in Fredericton New Brunswick to be prepared for analysis then shipped to Actlabs in Ancaster Ontario for estimation of graphite content and multi-element analysis. Samples were forwarded directly to Ancaster when physical property testing (MLA/QEMSCAN) was requested.

The Author has no reason to believe that sample preparation and security for drilling in 2023 was not in accordance with industry standards and at the current stage of exploration.

11.2 Sample Analyses

Carbon can be present in rocks in various forms. The total amount of carbon in a rock is the sum of inorganic carbon and organic carbon. Inorganic carbon is the amount of carbon held within carbon compounds, notably carbonates and carbon dioxide. Organic carbon is the amount of carbon held in simple bonds, notably carbon-hydrogen bonds (e.g., methane CH_4) or carbon-carbon bonds (e.g., ethane C_2H_6, or graphite). Graphitic carbon is a subset of organic carbon in the form of the mineral graphite where rings of carbon atoms are bonded together in stacked sheets.

Total carbon of a rock sample is typically determined through high-temperature combustion and infrared ("IR") spectroscopic analysis of the evolved carbon dioxide gas in an instrument called a carbon analyzer. Various methods exist to estimate the inorganic or organic carbon abundances of a sample including:

1. treating a sample with acid to convert the inorganic carbon component (i.e., carbonates) to carbon dioxide and direct detection of the evolved carbon dioxide to estimate the total inorganic carbon component
2. pretreating a sample with acid to remove the inorganic carbon component followed by high-temperature combustion of the residue and measurement of evolved carbon dioxide to estimate the organic carbon component
3. thermal decomposition of all non-graphitic carbon of a sample in a non-oxidizing atmosphere at high temperatures to derive the graphitic carbon component of a sample

The last of these methods is based on the principle that organic matter begins to ignite (oxidize) at 200°C and is completely depleted at 550°C, and that carbonate minerals (calcite and dolomite) are destroyed at temperatures between 700 and 850°C. In a non-oxidizing atmosphere, graphite is stable past 3,000°C. Nitrogen gas is often used to create a non-oxidizing atmosphere to estimate graphitic carbon using this physical property.

11.2.1 1999 and 2000 XRAL Laboratories

In 1999, 30 silt samples and 32 rock samples from the Property were submitted to X-Ray Assay Laboratories ("XRAL") in Don Mills Ontario for analysis. XRAL was then a division of SGS Canada Inc. XRAL Laboratories is certified by ISO 9002.

Multi-element estimation for these samples used XRAL code ICP-70 where samples were partially digested in a 3-acid bath (aqua regia), then subjected to inductively coupled plasma

("ICP") analysis. Atomic absorption was additionally used to estimate silver. Gold and platinum group estimation using was performed using fire assay techniques according to XRAL code FA15.

XRAL performs their own internal quality control with regular re-testing of submitted samples for an evaluation of precision. Blank samples were also employed by the laboratory to evaluate potential contamination between samples.

Prospecting south of Bourinot Road in 2000 saw the collection of 14 rock samples submitted to XRAL using the same analytical laboratory and methodologies as the previous year.

Geochemical results from these years passed the XRAL QA/QC program and are suitable to be used for exploration.

11.2.2 2005 to 2008 Mineral Engineering Centre, Dalhousie University

In 2005, historical drill core samples from drill hole 453-5 (also known as McAdams Lake No. 5, or ML-5) were submitted to the Minerals Engineering Centre ("MEC") at Dalhousie University for analysis. MEC provides research, analytical and advisory services to industry, universities and government bodies worldwide. MEC emphasizes quality control in all analyses and routinely uses reference materials obtained from CANMET, the U.S. Geological Survey, and the National Research Council of the United States.

Thirteen drill core samples from 453-5 were powdered, weighed, and treated with acid prior to analysis to remove the inorganic carbon (carbonate) from the rock. The sample was then combusted in the presence of excess oxygen, allowing carbon dioxide to form from the organic carbon in the rock which was measured in a LECO® carbon analyzer. The presence of other forms of organic carbon in the rock was assumed to be very low and results were reported as total graphitic carbon ("TGC"). No certified reference materials (standards) or duplicates were reported from this round of samples (Black, 2005b).

In 2008, 139 drill core samples from the 2008 drilling program at Property were taken to the MEC for carbon estimation using the methods described above. Results were reported as total organic carbon ("TOC").

In 2008, three samples were re-analyzed (duplicated) by the laboratory at MEC to evaluate precision and nine certified reference standards ("CRM") of varying grade were analyzed concurrently as an evaluation of accuracy. Results of this work as reported in Black (2010) are shown in Table 11.2.1 below. CRM results were often within 5% of the expected concentration in support of the accuracy and precision of results from this effort. Geochemical results from these years passed the QA/QC program so are suitable to be used for exploration.

Table 11.2.1: 2008 Certified Reference Standard Results

Reference Sample	Origin	Expected TOC, %	Resultant TOC, %
IRM	ASTM	2.0	1.93
IRM	ASTM	5.0	4.37
IRM	ASTM	10.0	9.70
Fer-4	CANMET	1.32	1.30
Fer-4	CANMET	1.32	1.31
Fer-4	CANMET	1.32	1.32
Fer-4	CANMET	1.32	1.32
Fer-4	CANMET	1.32	1.32
Fer-4	CANMET	1.32	1.32

11.2.3 2010 Mineral Engineering Centre, Dalhousie University

A total of 203 drill core samples from the 2010 drilling program at the Property were again taken to MEC at Dalhousie for TOC estimation. TOC was estimated using a dissolution of sample carbonates in hydrochloric acid (“HCl”), followed by drying and determination of the loss-on-ignition of the sample.

A description of the preparation employed by MEC was given in Black (2010) who writes, “after multiple stage crushing (minus 4.0 mm) with jaw crushers, samples are riffle split to 200 grams then pulverized with ring and puck (Spex Industries Inc. Shatterbox) to 100% passing 0.15 mm. Equipment is cleaned with jets of air and silica sand between samples.”

After treatment with HCl acid, samples were weighed to estimate the total inorganic content (“TIC”). Sample residue was oxidized at “850°C for a period of four hours in order to burn off the graphite.”

MEC duplicated the analyses of client-submitted samples to gauge their own precision. Figure 11.2.1 plots the original graphite values against the retested results for 41 samples retested. Some 30 samples (73%) fell outside a 10% error, with the majority of samples retesting well below the original estimation, indicating poor precision of graphite results. Figure 11.2.2 plots the original carbonate values against the retested results for 41 samples retested. Precision was far better with six of 41 samples (15%) falling outside of a 10% margin of error. Results from certified reference materials (standards) were not reported by MEC.

A systematic error occurred at MEC in 2010 when gauging organic carbon content in drill core samples. For the majority of data, retested samples produced significantly lower results than initial results. No explanations of the discrepancy were given. The TOC data from this effort should not be relied upon and are not suitable for use. The TIC estimates from this program should be systematically verified prior to use.

Figure 11.2.1: MEC-Initiated Duplicate Performance, Graphite

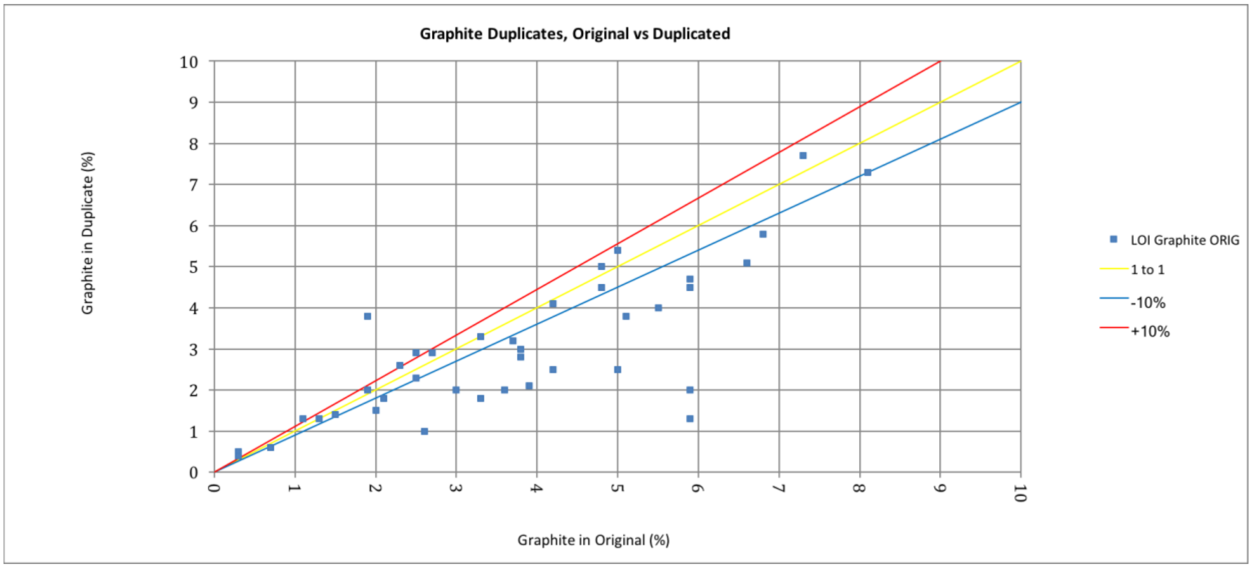
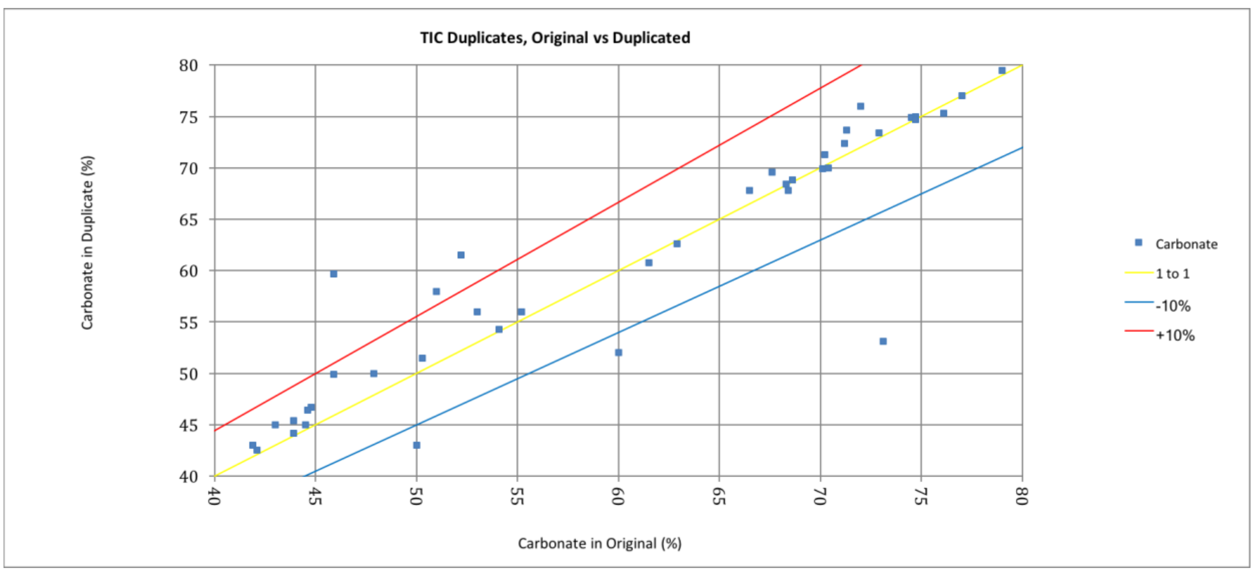


Figure 11.2.2: MEC-Initiated Duplicate Performance, Carbonate



11.2.4 2016 SGS Minerals Services Limited

In 2016, due diligence sampling of select intervals from 2010 drill core was performed by Genius Properties Ltd. Some 25 intervals of drill core corresponding to original sampled intervals were halved and submitted to SGS Minerals Services ("SGS") in Lakefield Ontario. An additional seven samples (series from 089264 to 089270) of unknown provenance were also submitted. SGS is accredited by the Standards Council of Canada and conforms to the requirements of ISO/IEC 17025.

Samples were subjected to the PRP89 preparation procedure involving weighing, drying at 60°C, and crushing such that 75% of the material passes 2 milimetres. A small fraction which is then riffle-split and pulverized such that 85% passes 75 microns.

TGC was estimated through SGS code GE_CSA05V, that sees the removal (dissolution) of carbonate minerals with HCl acid, then the estimation of TGC through high temperature combustion IR detection methodology within a LECO® carbon analyzer.

The laboratory performed duplicate analyses on multiple samples as a gauge on precision. Results of duplicate samples were within 5% error for all retests (Table 11.2.2). CRM were not reported by SGS, so accuracy is not assured. The estimates from this program should be verified prior to use.

Table 11.2.2: 2016 SGS-Initiated Duplicate Performance

Sample	Original TGC, %	Duplicate TGC, %	Original TIC, %	Duplicate TIC, %
FV-10-05 23m-24.53m	2.69	2.64	(n/a)	(n/a)
FV-10-05 34.72m-36.3m	(n/a)	(n/a)	27.2	27.3
089268	0.213	0.211	18.1	18.3

11.2.5 2021 Portable XRF Analyzer

Portable XRF Analyzers are not considered reliable when quantifying elements with atomic numbers below 15, including silica and carbon.

Reasonable sample homogeneity in these samples is expected due to homogenization at an accredited laboratory. The number of readings per sample, detector type, sample measurement time, or duplicate and standard performance were not disclosed in Wightman (2023). The XRF results of elements, including Fe, Cu, Zn, Mo, Pb, and W, are considered reasonable for the purposes of exploration.

11.2.6 2023 Activation Laboratories Limited

Actlabs, with preparation facilities in Fredericton New Brunswick and full analytical laboratory in Ancaster Ontario, was used as the analytical laboratory for all 76 drill core samples of 2023. Actlabs is accredited under ISO 9001:2015 and 9002.

For sample preparation, all samples were dried, crushed to 80% passing 2 mm, riffle split to obtain a 250 g sub-sample, then pulverized to 95% passing 105 µm. This preparation treatment corresponds to Actlabs Code RX1.

Total carbon measurement (analysis code 4F-C) employed by Actlabs uses a 0.5 g sample in an Eltra® CW-800 resistance furnace at 1,000°C in a pure oxygen environment causing the sample to combust releasing the carbon in the form of CO_2 which is detected by an IR spectrometer as carbon dioxide absorbs IR energy at a precise wavelength within the IR spectrum. The 4F – C method of total carbon estimation at ActLabs has a lower detection limit of 0.01%.

TGC measurement (analysis code 4F-C - Graphitic) employed at Actlabs uses a single sample without the use of acids and filtration. An Eltra® Helios resistance furnace combusts the sample at 1,450°C in a nitrogen-rich atmosphere which burns non-graphitic organic carbon and carbonate leaving graphitic carbon behind. This principle relies on the stability of graphite to withstand temperatures above 3,000°C in a non-oxidizing environment. The residue remaining after this process, is combusted in an oxygen-rich environment, oxidizing the graphite to carbon dioxide which is detected with standard IR detection methods.

The 4F - C-Graphitic method of graphite estimation at ActLabs has a lower detection limit of 0.05%. This value represents TGC including both flake and amorphous graphite.

Certified standards for graphite were obtained from CDN Resource Laboratories and inserted by Mt. Cameron Minerals staff at a rate of approximately 1 in 25 throughout the sample series. Standard CDN-GR-1 is certified at 3.12 +/- 0.11 % carbon. Of the three standard samples submitted in 2023, two returned values of 3.1 % carbon, but sample 738211 returned a value of 2.98 % carbon, slightly below the lower limit of the certified range.

Blank samples were also inserted into the sample stream, also at a rate of 1 in 25. White Play Sand (silica), sourced from aggregate-producer Shaw Resources (of the Shaw Group Limited) in Nova Scotia, was used with both submitted samples returning graphite concentrations below detection limit of carbon at 0.05%.

Actlabs inserts their own reference standards into the sample stream to gauge their own accuracy. Figure 11.2.3 plots the expected values of the graphite standards tested by Actlabs against their measured results. Only two of 74 graphite standards tested by Actlabs were outside of 5% of the expected value.

Actlabs also duplicates the analyses of client-submitted samples to gauge their own precision. Figure 11.2.4 plots the original graphite values against the retested results. Of nine samples retested, three were outside a 5% error with one of these being outside 25% error. All retested samples outside of 5% error were of relatively low initial grade (i.e. <0.6%).

The rigorous QA/QC program employed by Actlabs in 2023 results in data that can be relied upon.

Figure 11.2.3: Actlabs-Initiated Standard Performance, Graphite

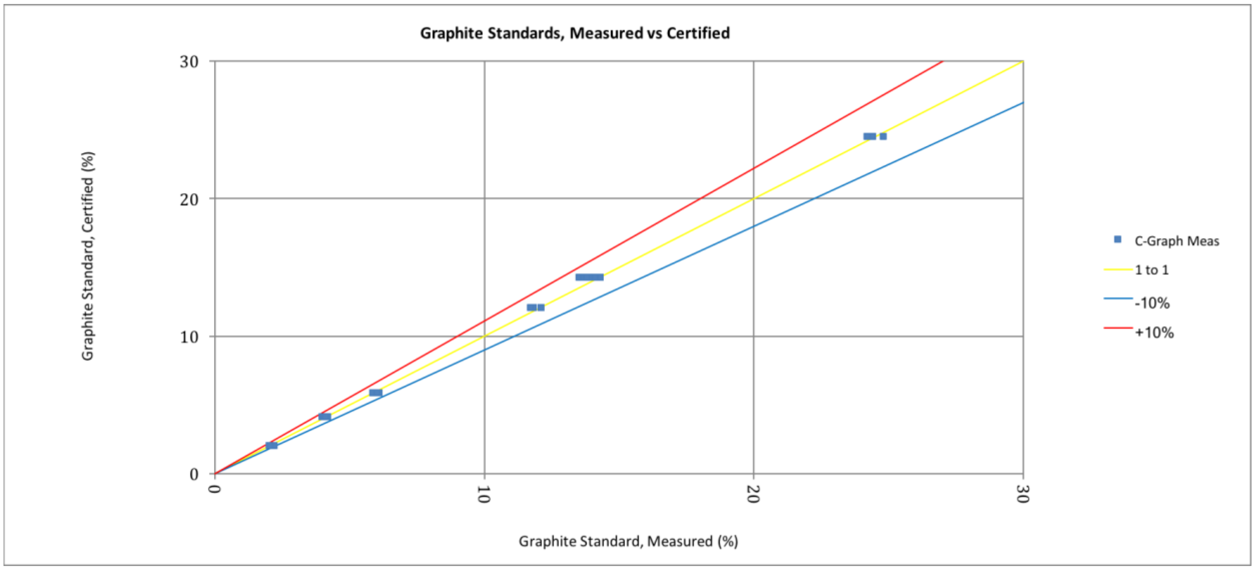
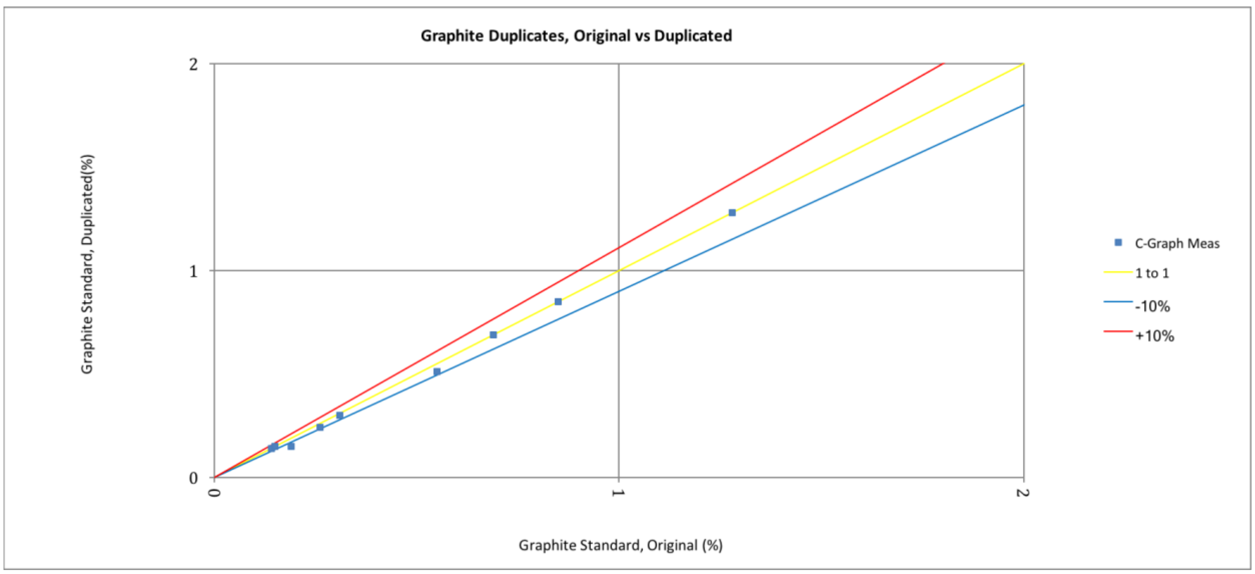


Figure 11.2.4: Actlabs-Initiated Duplicate Performance, Graphite



12 DATA VERIFICATION

Data verification, as defined in NI 43-101, is the process of confirming that data have been generated with appropriate procedures, have been accurately transcribed from the original sources, and are suitable to be used. The Author has completed data verification for the Property to the extent possible based on the age and source of the data.

Data verification procedures carried out by the QP for the Property consisted of review and compilation of any and all public records and internal source documents provided to the Author and relevant to the Property. This included compilation of all diamond drilling data from source data, verification for accurate transcription, and validation of data accuracy and precision partly through internal or laboratory QA/QC results (Sections 10 and 11), as well as three due-diligence visits to the drill core library and storage facility to review Property drill core and sampling procedures. Current data for the Property resides in digital spreadsheets.

This process culminated in the completion of a site visit to the Property on November 2nd, 2023 by the Author, which included verification of Property access routes, trench locations, and former drill sites. No issues were identified during the site visit that negatively impact the findings and conclusions of this Report.

12.1 SURFACE DATA

Prior to Mt. Cameron's involvement in the Property, mineral exploration primarily focused on base metal, gold, and platinum group element mineralization. The largest collection of historic data available to the Author was that of Hill (1987) who documented the base metal skarn occurrences on the Property at the showings collectively known as Rear Boisdale. Approximately 55 grab samples from the Property were analyzed for multi-element geochemistry and major element oxides at XRAL. Results are tabulated in the appendix of Hill (1987) but have yet to be compiled in digital format.

Approximately 76 rock and silt samples from 1999 and 2000 taken by Black while searching for platinum group elements were submitted to XRAL. Results, including gold and multi-element analysis, is included in their respective reports but, to date, have not been compiled in digital format.

12.2 DRILL DATA

Drill logs from 1951 drilling by Mina-Nova have recorded assays of lead and zinc, and those from 1963 for J.C. Marsh have recorded assays of lead, zinc, copper, gold, and silver. This data may not conform to presently-accepted industry standards and has not been compiled digitally.

Drill logs in Black (2010) and Wightman (2011b) record drill hole UTM coordinates, termination depths, drill core diameters, dates of drilling, and drill hole azimuths and plunges both when collared and at multiple depths down hole. Specifics of how this data was collected is undocumented. Attempts were made to intersect graphitic horizons at high angles (Black 2010).

Assays recorded on drill logs from 2008 and 2010 were very close to assay results reported from assaying laboratories with one exception: assay results transcribed to drill logs recorded averages of original and their respective duplicated or repeated assays.

The Author has captured results obtained directly from assaying laboratories to generate the performance statistics of the Property assays presented in Sections 10 and 11. The Author concludes the following:

1. The graphite estimates of 139 drill core samples from 2008 drill holes submitted to MEC (Black, 2010) are shown to have reasonable accuracy and precision and can be relied upon at this stage of exploration.
2. The graphite estimates from 13 drill core samples submitted to MEC in 2005 (Black, 2005b), reportedly prepared and analyzed using the same methodology as in 2008, should be verified before use.
3. The graphite estimates of 203 drill core samples submitted to MEC in 2010 (Wightman, 2011b) are shown to have poor precision resulting from unattributed systematic error and thus cannot be relied upon.
4. The graphite estimates from the resampling of 25 intervals of 2010 quartered drill core in 2016 are viewed to have very good precision, yet without results from certified reference materials, accuracy is not assured and should be further investigated.
5. The graphite estimates from the sampling of 76 intervals of 2023 drill core are viewed to have very good accuracy and precision and can be relied upon at this stage of exploration.

12.3 Database Validation and Site Visits

The Author visited the drill core library and storage facility in Stellarton Nova Scotia on July 18, 2023 to view the entire length of drill core from drill hole FV-10-06. The Author also visited the drill core library and storage facility in Stellarton Nova Scotia on August 24, 2023 to view active logging and sampling of drill hole FV-23-01 by Cliff Stanley and Don Black for graphite and base metals and on September 20, 2023 to observe the sampling of drill core by Don Black for physical property analysis.

The Author visited exploration licences 55701, 55855, and 55857 of the Property on November 2, 2023. In-situ mineralized outcrops of graphitic marble of the Property were seen, and positioning of access roads, the 2008 trench, 2023 drill hole locations, and claim boundaries were verified using a handheld GPS. No samples were submitted to an analytical laboratory for check assay by the Author.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 2005 – 2011 Mineral Engineering Centre Processing and Concentration

In an effort to assess the suitability of Property graphitic marbles for graphite flake production, Dr. Ian Flint of Dalhousie University's Mineral Engineering Centre began work on a proposed graphite concentration circuit along with assessment of contaminants of the graphite concentrate. Non-carbonate contaminants in the graphite concentrate were identified to be micas (pyrophyllite with lesser muscovite) and magnesite.

The work in 2005 was performed on 5 kg of rock sourced from outcrop on L10 of the Main Zone. The work in 2009 was performed on a 4-tonne split of an approximately 50-tonne bulk sample crushed by a rock crusher sourced from the trench on L10 (Main Zone). As all tested material was sourced from a single location at the Main Zone, the sample may not necessarily be representative of all Main Zone mineralization.

Table 13.1: Assay and Graphite Concentration Circuit Reports by Dr. Ian Flint

Date	Report Subject	Source	Origin of sampled material	Results
Jun 2005	Grab Samples	Appendix 1 in Black, 2005b	Surface grabs at the west end of Line 10, site of FV-10-08	Grinding resulted in attrition of graphite flakes, changes to circuit suggested
Jun 2005	Process Testing			
Jul 2005	Process Testing (reissued)	Summary Report of Work, Flint (2011)		Assay methods considered erroneous (LECO® carbon analyzer not used), liberation of graphite with minimal grinding observed
Feb 2009	Graphite Assay Analysis	Appendix 2 in Black, 2010	Low, medium, and high-grade samples from trench on L10E, near FV-08-02	Loss-on-Ignition procedure developed, results not reported
Jul 2009	Initial Stage Pilot Plant Testing	Summary Report of Work, Flint (2011)	~1,000 kg from trench on L10E, near FV-08-02	Over-grinding likely to have occurred, acceptable product for subsequent tests
Sep 2009	Secondary Physical Separation			Over-grinding still problematic, contamination minerals need to be adequately addressed, foreign contamination by metal and sulphides, but results encouraging
Sep 2009	Chemical Refining on Secondary Physical Separation			
Feb 2010	Processing Graphite Bulk Sample	Appendix 5 in Black, 2010	1,000 kg from trench on L10E, near FV-08-02	Attrition of graphite flakes and sulphide contamination precluded a concentrated graphite product
Dec 2010	Background on Graphite Analysis	Summary Report of Work, Flint (2011)	(n/a)	Summary of potential problems related to graphite quantification

Reports produced included those in Table 13.1. An in-house report by Flint dated June, 2011 contains a summary of this work. The body of work is preliminary in nature and observes the general challenges of graphite liberation from the host rock and quantification of graphite abundance. Partial results are summarized in Table 13.1.

13.2 2023 ACTLABS MLA / QEMSCAN TESTING

A total of ten drill core intervals were submitted to Actlabs to receive mineral liberation analysis (Table 13.2.1) with the aid of a mineral liberation analyzer ("MLA") and quantitative evaluation of materials by scanning electron microscope ("QEMSCAN") testing. Samples were forwarded directly prior to any preparation work to Actlabs in Ancaster Ontario for MLA/QEMSCAN.

Both of these procedures are scanning electron microscope techniques that give quantitative mineralogical parameters including graphite flake size analysis and distribution. Mineral liberation analysis involves the creation of two transversely-mounted polished sections from different size fractions of a ground sample, and analysis performed with back-scattered electron imaging. Outputs from this analysis include modal mineralogy (the relative proportion of each mineral in the sample) as well as graphite grain size and distribution data.

Samples are prepared for QEMSCAN analysis from a sample of a coarse reject material screened and crushed to 100% passing 850 μm, then screened again to 300 μm to prepare as polished sections. Grains in excess of 300 μm are excluded from the analysis.

Four samples were selected from 2023 drill core intersections thought to be well-mineralized with graphite. Six samples were selected from 2010 drill core intersections understood to be relatively well-mineralized with graphite from 2010 MEC results. Following MLA/QEMSCAN, all samples received Actlabs code 4F - C-Graphitic analysis.

Table 13.2.1: 2023 Samples Submitted for MLA/QEMSCAN

Sample	DDH Name	From(m)	To (m)	2023 Graphite (%) Actlabs	2010 Graphite (%) MEC
FV-23-FSA-01	FV-10-01	15.00	16.06	4.76	7.7
FV-23-FSA-02	FV-10-01	73.70	75.50	1.92	4.15
FV-23-FSA-03	FV-10-06	41.00	42.57	1.52	3.9
FV-23-FSA-04	FV-10-06	47.00	48.50	1.85	3.4
FV-23-FSA-05	FV-10-06	63.57	65.00	0.56	5.3
738206	FV-23-01	18.08	20.00	0.37	(n/a)
738232	FV-23-01	72.45	73.77	0.52	(n/a)
738248	FV-23-02	102.46	103.80	0.72	(n/a)
738301	FV-10-05	85.00	90.00	1.35	5.67*
738303	FV-23-02	46.74	47.78	0.41	(n/a)

**weighted average of original results from 3 samples between 85.49 and 89.97m*

13.2.1 Modal Mineralogy

The modal mineralogy revealed calcite as the predominant mineral averaging approximately 47% of all samples submitted for MLA/QEMSCAN. Pyroxene (var. diopside) averaged almost 21% of all samples submitted, and in one instance was found in slightly higher abundance than calcite. Biotite (var. phlogopite) was common to most samples averaging 8.2%. Other minerals that constituted appreciable amounts (on average) include plagioclase (3.7%), chlorite (2.5%), pyrite (1.2%), and quartz (1.2%). Though detected by the method, ankerite was negligible, as was dolomite.

Graphite occurrence in the samples are classed in decreasing size and purity as flake graphite, graphite-silicates (as intergrown minerals), and graphitic clay (a fine-grained mix of organic carbon and graphite). The samples submitted averaged approximately 5.8% modal graphite classed in these categories, of which 2.06% is classed as flake graphite.

A relatively pure, flake form of graphite was detected in drill core samples from FV-10-01 and FV-10-06 when compared to drill core samples from FV-23-01 or FV-23-02. The latter were seen to contain a much higher percentage of either graphite with impurities or organic carbon that has not been graphitized.

13.2.2 Graphite Flake Size Distribution

Table 13.2.2 shows the relative abundance of graphite grains of submitted samples by common industry size classes. Sample B738248 shows the largest fraction of graphite grains, other than a very fine (or amorphous), are classified as coarse. Sample FV-23-FSA-04 shows the next largest fraction of graphite grains (other than very fine) classed as coarse. The total graphite content of this sample is 1.85%. Sample FV-23-FSA-01, assaying 4.76% graphite, has a combined 36.42 weight percent of medium and coarse flakes and has a low abundance of graphitic clay.

Table 13.2.2: Flake Size Distribution (Weight %)

Flake Size	From (µm)	To (µm)	*FSA-01	*FSA-02	*FSA-03	*FSA-04	*FSA-05	B738206	B738232	B738248	B738301	B738303
very fine	1	53	27.69	39.79	33.69	31.67	38.13	57.49	52.71	52.12	42.93	63.24
fine	53	106	35.89	32.14	36.96	29.16	30.22	21.32	20.44	17.52	27.61	13.63
medium	106	150	19.27	10.99	16.75	16.60	18.90	6.69	21.70	4.89	19.14	12.58
coarse	150	300	**17.15**	17.08	12.60	**22.57**	12.75	14.51	5.16	**25.47**	10.32	10.55
Total			100.00	100.00	100.00	100.00	100.00	100.01	100.01	100.00	100.00	100.00

**samples prefixed 'FV-23-'*

13.2.3 Graphite Liberation and Association

Table 13.2.3 summarizes the degree to which graphite has been liberated in the prepared sections for the samples submitted. Sample FV-23-FSA-04 shows 43.48% of graphite grains are considered free to completely free from associations with other minerals. FV-23-FSA-03 showed a relatively large portion in association with other mineral grains. The two most common minerals in association with graphite are calcite (external to graphite) and variety of silicate that is finely intergrown within graphite.

Table 13.2.3: Graphite Liberation by Free Surface Area (%)

Sample	0 to 50% (Locked)	50 to 90% (Associated)	90 to 99% (Free)	100% (Completely Free)
FV-23-FSA-01	40.92	18.38	**17.76**	14.09
FV-23-FSA-02	43.75	16.27	13.82	13.02
FV-23-FSA-03	43.12	**22.23**	15.81	11.36
FV-23-FSA-04	27.29	18.91	**22.76**	**20.72**
FV-23-FSA-05	42.69	22.19	15.77	11.53
B738206	85.42	5.73	1.08	6.16
B738232	83.31	3.27	4.04	7.31
B738248	68.68	14.20	8.20	6.20
B738301	78.20	7.79	6.30	2.48
B738303	85.05	4.36	4.76	4.11

14 MINERAL RESOURCE ESTIMATE

There are no mineral resource estimates for the Property.

15 MINERAL RESERVE ESTIMATES

There are no mineral reserve estimates for the Property.

16 MINING METHODS

This section is not applicable.

17 RECOVERY METHODS

This section is not applicable.

18 PROJECT INFRASTRUCTURE

This section is not applicable.

19 MARKET STUDIES AND CONTRACTS

This section is not applicable.

20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

This section is not applicable.

21 CAPITAL AND OPERATING COSTS

This section is not applicable.

22 ECONOMIC ANALYSIS

This section is not applicable.

23 ADJACENT PROPERTIES

A single mineral claim approximately 150 metres east of the main shaft of the Currie Mine is registered on NovaROC to John Shurko and is surrounded by the Property. One NSDNRR mineral occurrence exists on this claim along with a single drill hole completed by the Nova Scotia Department of Mines in 1913. The Property is mapped to overlie the George River Fault.

Another single mineral claim (registered to 21Alpha Resources Inc. on NovaROC) is encircled by the Property. This claim overlies NSDNRR mineral occurrence K01-019: Frenchvale Cu-Mn-Pb Occurrence, a skarn-like occurrence approximately 4.1 kilometres southwest of the community of Frenchvale. In 1987, Hill grouped this occurrence with the Rear Boisdale base metal occurrences and placed it on the west side of this claim.

Properties adjacent to the Property include a 35-claim licence adjoining the Property to the north, also owned by 21Alpha Resources Inc. This adjoining property is host to five NSDNRR mineral occurrences:

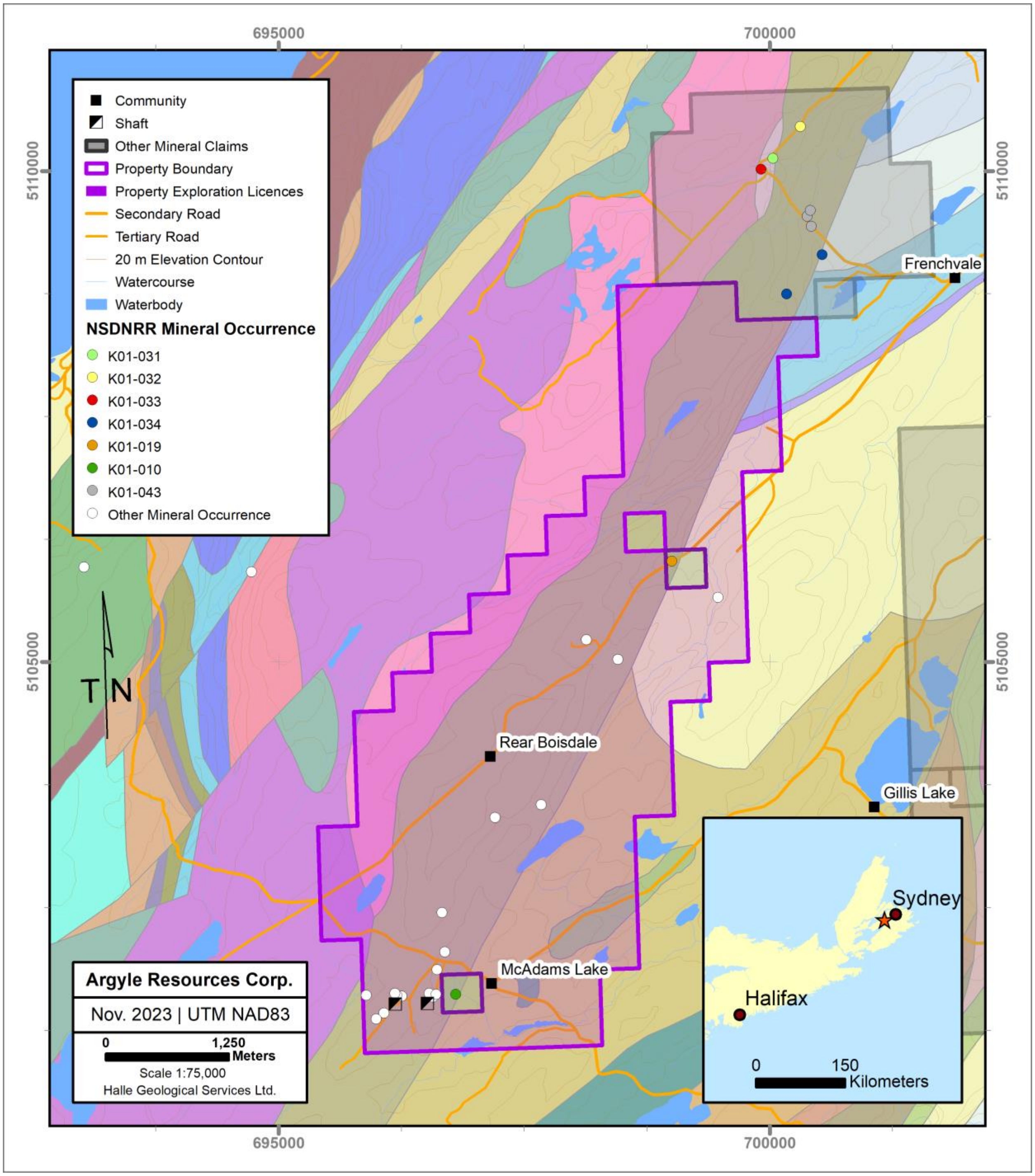
- K01-031; Frenchvale Cu-Fe Skarn
- K01-032; Rifle Range Quarry Cu-Sn-Fe-Bi-W-Co-Au Skarn
- K01-033; Kumrine Quarry Cu-Fe-Ni Skarn
- K01-034; Frenchvale Quarry Au-Co-Cu-Fe-W Skarn
- K01-043; Gouthro Road Cu-Fe Skarn

Recent work on the adjoining property included that of Mt. Cameron who, in 2004, performed preliminary surface exploration for flake graphite while focusing on gold and platinum group elements (Black, 2005a). Eleven drill holes were completed on geophysical targets in search of gold, base metals, and platinum group elements. Graphite was noted in grey skarns at the Frenchvale Quarry.

Prospecting and sampling of surface exposures on the adjoining property by Preston Mineral Resources Ltd. (Smeltzer, 2012) resampled a single location of drill core from drill holes 453-1 and 453-4, known to have been performed on the current Property, but assays were not reported. Two grab samples from 50 metres northeast of Gouthro Road near the Gouthro Road Skarn occurrence were returned from SGS Laboratories assaying 1.63% and 0.73% graphite.

The Author has been unable to verify the information regarding adjacent properties and this information is not necessarily indicative of the mineralization on the Property.

Figure 23.1: Adjacent Properties and Mineral Occurrences



24 OTHER RELEVANT DATA AND INFORMATION

The Author is not aware of other relevant data or information that is considered material to this Report.

25 INTERPRETATION AND CONCLUSIONS

Argyle retained HGS to prepare and author this Report following a detailed review of relevant data pertaining to the Frenchvale Graphite Property. The Report has been prepared to partially satisfy the requirements for Argyle to become a reporting issuer in certain jurisdictions in Canada so that it may engage in an initial public offering, and subsequently apply to have its common shares listed trading on a Canadian stock exchange.

At the Effective Date, Mt. Cameron has 100% ownership in the Property, consisting of five contiguous mineral exploration licenses covering approximately 1975 hectares of land located near the community of Frenchvale, Nova Scotia. Mt. Cameron has entered into an Option Agreement with Argyle whereby Argyle can acquire a 100% interest in and to the Property, free and clear of all encumbrances and claims, other than certain permitted encumbrances set out in the Option Agreement.

The Property contains several varieties of metallic skarns, occurring in multiple locations, some of which have undergone moderate development, as well as numerous graphite occurrences at various stages of exploration. The Main Zone, a graphite occurrence and recent focus of exploration approximately 800 metres west of Campbell Lake, was drill-tested by Mt. Cameron in 2023 with assays returning graphite grades as high as 6.0% over 0.17 metres, and a separate composited grade of 4.3% over 3.3 metres. Additionally:

- 2010 drill hole FV-10-01 exhibits a 36.4 weight percent of medium and coarse graphite flakes within a 1.06 metre interval which assayed 4.76% graphite
- Approximately 20% of graphite from submitted samples can be considered fully liberated (free) upon grinding, with calcite accounting for the largest proportion of minerals externally-associated to graphite

Based on the evaluation of data available from the Property, the Author concludes that the Property shows good potential to host a graphite deposit of significance, but is still in early stages of exploration and understanding. Flake graphite deposits are valued not only for graphite content, but graphite flake size, purity, and ease of graphite liberation. The Property has only recently begun to assess these characteristics owing to:

- Intermittent drill core sampling that is sparse (456 graphite assays total) and shown to have missed graphite grades over 1% and where sampling was stopped for unknown reasons in multi-percent grades of graphite
- Lack of or failing QA/QC programs in approximately 37% of graphite assays prior to 2023

- Low number of samples submitted for graphite quality parameters such as liberation, purity, and flake size analysis (10 samples in total)
- Lack of a coherent geologic dataset and corresponding lithologic model

The past sampling of drill core for graphite was intermittent and limited in scope. Entire lengths of drill holes were not sampled, and some drill holes were not sampled at all. Numerous examples exist where sampling stopped in multi-percent graphite, and a single example exists where graphite grading over 1% was missed in original sampling. The sparse and intermittent assay data, combined with a lack of a coherent geologic dataset presents uncertainty in assessing the graphite potential of the Property.

Graphite concentration test work on a limited breadth of samples from the Main Zone performed by MEC is only preliminary in nature. The MLA/QEMSCAN results from ten drill core intervals shows general variability in graphite flake size, clay content, purity, and liberation, while showing uniformity with the association to other minerals.

Other than that stated above, the Author does not foresee any significant risks or uncertainties with respect to political, environmental, land access, mineral tenure, or social licence that could reasonably affect the conclusions of this Technical Report.

Though still at early stages of exploration, the Property holds potential for additional discovery. For example, the re-sampling of historic drill hole 453-5, over 1 kilometre south of the Main Zone, returned potentially anomalous graphite grades but lack reliability as laboratory QA/QC was not reported.

26 RECOMMENDATIONS

Additional work is warranted to further evaluate flake graphite potential at the Property. An exploration program ("Program") is recommended to continue building Property data and target additional and higher-grade flake graphite mineralization. The Program consists of the collection of IP and resistivity data concurrent with infill and check assaying on historical core, followed by the validation of encouraging results through exploration and infill drilling of priority targets, as ordered below.

1. Acquisition of an IP and resistivity survey over the Main Zone to the immediate southwest and northeast of that acquired in 2008, as IP results are parallel to and coincident with interpreted geology and graphitic horizons. Other targets should also be considered for collection of IP and resistivity data, including near historic drill hole 453-5 and conductive Zones 3 and 4 identified in the 2017 airborne survey.
2. Infill and/or re-sampling of historical drill core where warranted, most notably that drilled in 2010, to obtain additional and reliable graphite grades. Re-evaluating the 453-series drill core from 1963 is also warranted. Representative samples of identified lithologies from this effort should be submitted for physical property testing, including graphite liberation and flake size analysis.
3. Infill diamond drilling between drilled sections at the Main Zone as well as exploration drilling along strike from mineralized horizons of the Main Zone, and/or where targeted by IP and resistivity. Drill core samples should undergo a rigorous QA/QC program to ensure confidence in resulting data. Additionally, commencing a data set of drill core conductivity and magnetism could aid geophysical interpretation. A representative number of samples should be submitted for physical property testing including graphite liberation and flake size analysis.

The recommended Program comes with a total estimated cost of $250,000. Table 26.1 presents the recommended projects and associated costs of the Program. The recommended Program is projected to require 6 to 8 months to complete.

Table 26.1: Estimated Costs of the Recommended Program at the Property

Project	Description	Estimated Cost (CAD)
IP Geophysics	10 km of IP and Resistivity at Main Zone area	$25,000
Flake Size Analysis	Infill (2023) and Re-sampling (2010) of drillcore with selective FSA	$10,000
Exploration Drilling	1,000 metres of diamond drilling (4-5 drillholes at approximately 200 metres each), including graphite analysis and selective FSA	$190,000
Contingency		$25,000
TOTAL		**$250,000**

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28 DATE AND SIGNATURE PAGE

I, Jesse R. Halle (P.Geo.) of Halifax, Nova Scotia do hereby certify that:

1. I am a Senior Geoscientist with Halle Geological Services Ltd. having an address at Unit 3 – 1345 Dresden Row, Halifax, NS, CANADA B3J 2J9.
2. I am a graduate of the University of Toronto with an Honors B.Sc. (Env. Sci.) in 1996, and of Lakehead University with an Honors B.Sc. (Geology) in 2002.
3. I am a member, in good standing, of Geoscientists Nova Scotia (301), the Professional Engineers and Geoscientists of Newfoundland (10743), Engineers and Geoscientists of British Columbia (157202).
4. I have worked in my chosen field in Nova Scotia, Newfoundland and Labrador, Québec, Ontario, Manitoba, British Columbia, Northwest Territories, Yukon, and Alaska as a geologist or geoscientist from 1996 to the present, and have been extensively involved in mineral exploration, resource definition, and technical reporting.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with professional associations (as defined in NI 43-101), and relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
6. I am responsible for the preparation of all sections of the technical report titled *Frenchvale Graphite Property Nova Scotia Canada, NI 43-101 Technical Report* (the "Report") effective December 11, 2023. I visited the Frenchvale Graphite Property on November 2, 2023.
7. I have had no prior involvement with the Property that is the subject of the Technical Report.
8. I am not aware of any material fact or material change, the omission of which would make the Technical Report misleading.
9. I am independent of the Argyle Resources Corp. and the Mt. Cameron Minerals Incorporated applying all tests in Section 1.5 of NI 43-101.
10. I have read NI 43-101, Form 43-101F1 and confirm this Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

Dated at Halifax, Nova Scotia, this 11th Day of December, 2023.

____

Jesse R. Halle, P.Geo.

THE ASSOCIATION OF PROFESSIONAL GEOSCIENTISTS OF NOVA SCOTIA est 1997

0301

Signature:

Date: 2023-12-11