SOQUEM

DAVID
PROJECT (1165)

Owner : SOQUEM 100 %
Available

Summary

The David Property is less than 2 km from the town of Chibougamau, in the northeastern Abitibi Greenstone Belt. The property is characterized by a large number of gold and zinc occurrences:

- Pierrot-East Lake, hole 1165-09-19: 2.0 g/t Au over 21 m
- David Zn-Au: 6.2 % Zn over 1 m (channel) and 4,0 g/t Au over 1 m (channel)
- David Au: 4.73 g/t Au over 1 m (channel)

The advantageous position of the project within a deformation corridor and over a transition zone between two volcanic cycles make it a high-quality prospect for discovering economic VMS deposits.

Large number of gold and zinc occurrences

Less than 2 km from the town of Chibougamau

high-quality prospect for discovering economic VMS deposits

advantageous position

ABOUT US

SOQUEM, a subsidiary of Investissement Québec, is dedicated to promoting the exploration, discovery and development of mining properties in Quebec.

SOQUEM also contributes to maintaining strong local economies. A proud partner and ambassador for the development of Quebec's mineral wealth, SOQUEM relies on innovation, research and strategic minerals to be well-positioned for the future.

Location and infrastructure

The property is in the Province of Quebec, Canada, 1.5 km southwest of the town of Chibougamau (Figure 1). Access is from Chibougamau via Route 167 which runs along the east side of the property. Many gravel roads and all-terrain vehicle trails branch off the road, providing access throughout the project.

The property has little topographic relief. Outcropping areas are abundant except at the northern end of the property where the Quaternary cover of fluvio-glacial sediments is more than 20 metres thick. Lakes, rivers and swamps account for less than 5% of the area.

An operating gravel pit is present in the northeastern part of the property and a borrow pit lies to the south of the operation. The infrastructure includes a power line that supplies electricity to the former Troilus mine, which crosses the eastern part of the property, and the Obalski substation, which is adjacent to the project. A railway, which connects to the national network and is capable of transporting ore, also crosses the southeastern part of the property. Finally, a regional airport is located between Chapais and Chibougamau.

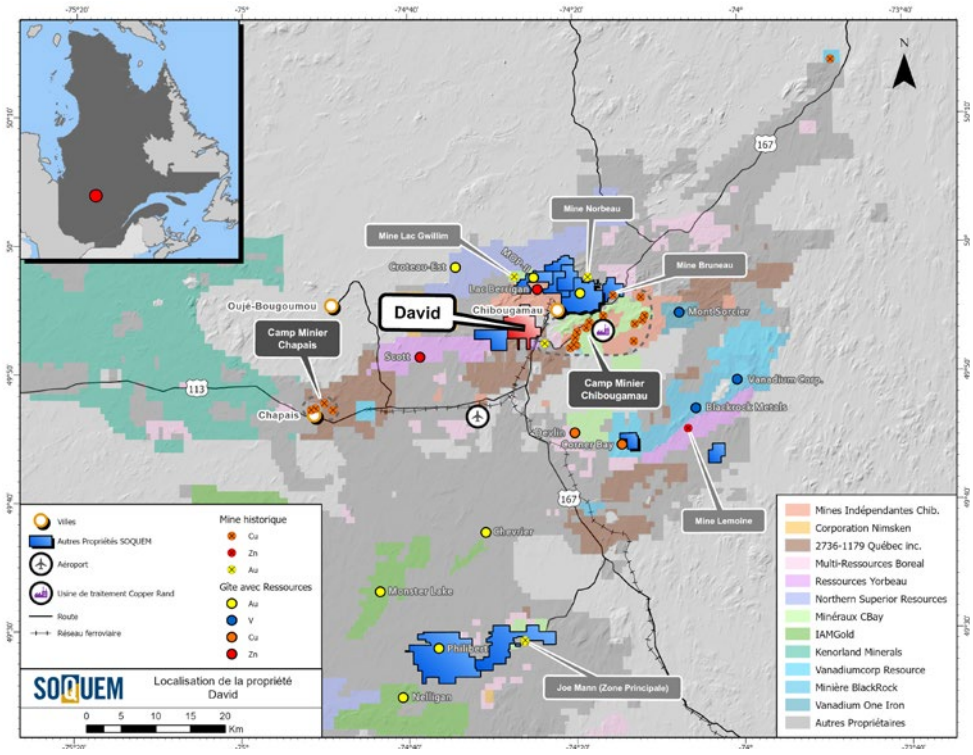


Figure 1
Location of the property.

The Chibougamau mining camp, with a history dating back to the early 1950s, has a skilled workforce for both underground and surface mining. The camp includes the former Copper Rand mine, whose infrastructure is still in place, including the mill and tailings pond.

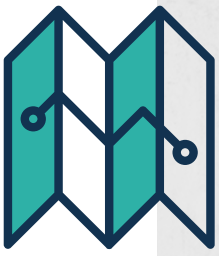
The nearest municipalities are the towns of Chibougamau and Chapais and the two Cree communities of Mistissini and Oujé-Bougoumou.

Regional geology

The Chapais-Chibougamau mining camp is located in the northeastern Abitibi Greenstone Belt in the Superior Province. The Chibougamau region, bordered to the east by the Grenville Front, covers part of the polycyclic Northern Volcanic Zone (Chown et al., 1992) that links the Matagami and Chibougamau mining camps (Figure 2). The Archean rocks of Chapais-Chibougamau comprise two groups, Roy and Opémisca, separated by an erosional unconformity. These units are overlain by Proterozoic sequences that include the sedimentary rocks of the Chibougamau Formation.

The property is part of the Roy Group (RG-2015-03). According to the new stratigraphic column for Chibougamau (Figure 3), the Roy Group encompasses two volcanic cycles that present essentially the same configuration, specifically tholeiitic mafic flows at the base and overlying felsic volcanics of tholeiitic to calcalkaline affinity (Leclerc et al., 2017).

The Lac Doré Intrusive Suite was emplaced in the upper part of the first volcanic cycle of the Roy Group. It is a polyphase anorthositic layered mafic complex analogous to the Bushveld Complex in South Africa. Thick layers of vanadiferous magnetite are currently being studied for possible economic extraction.



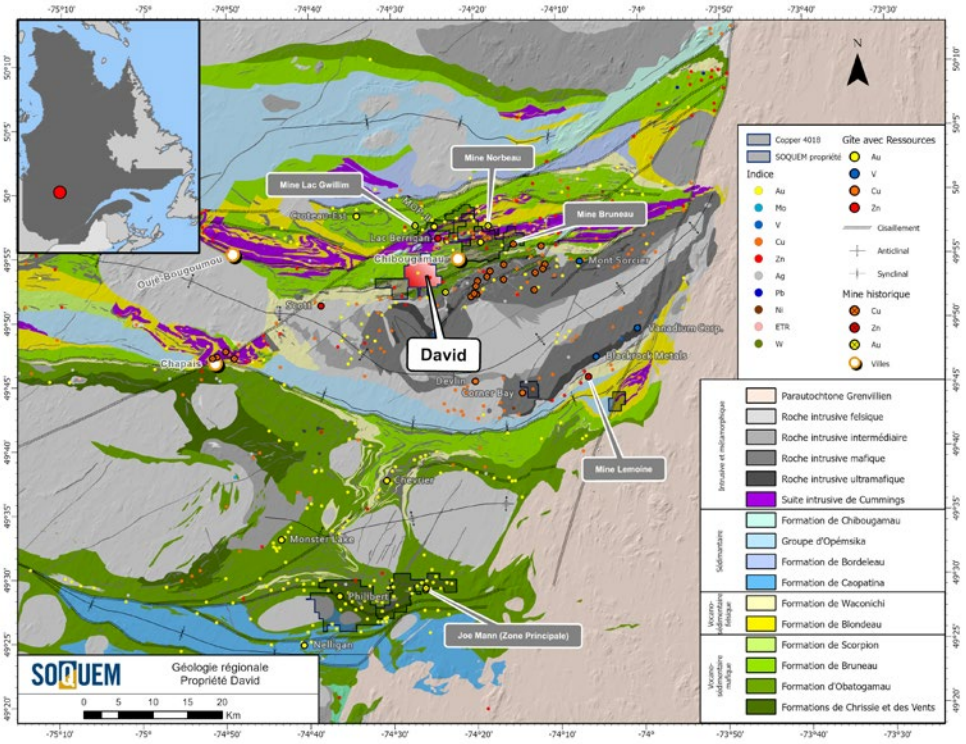


Figure 2

Simplified regional geology map showing the main deposits and structures (modified by CONSOREM).

Several felsic plutons cut the stratigraphy of the Roy Group. The Chibougamau Pluton intruded the core of the intrusive Lac Doré Intrusive Suite. The pluton appears to have played a major role in forming several of the mined deposits in the Chibougamau camp. These deposits are mainly peripheral to the Chibougamau Pluton, in areas where the Lac Doré Intrusive Suite is deformed.

These volcanic and intrusive sequences are unconformably overlain by the sedimentary rocks of the Bordeleau Formation and the Opémisca Group. Finally, the Proterozoic rocks of the Chibougamau Formation complete the regional stratigraphic sequence.

The structural evolution of the region is characterized by three periods of Archean deformation and one period of Grenvillian deformation (Daigneault and Allard, 1990). The regional foliation is a flow schistosity that is generally well developed throughout the region. It is axial planar to regional folds and displays a stretching lineation with a steep plunge (Chown et al., 1992). The rocks are mostly metamorphosed to greenschist facies but reach lower amphibolite facies near some intrusive masses.

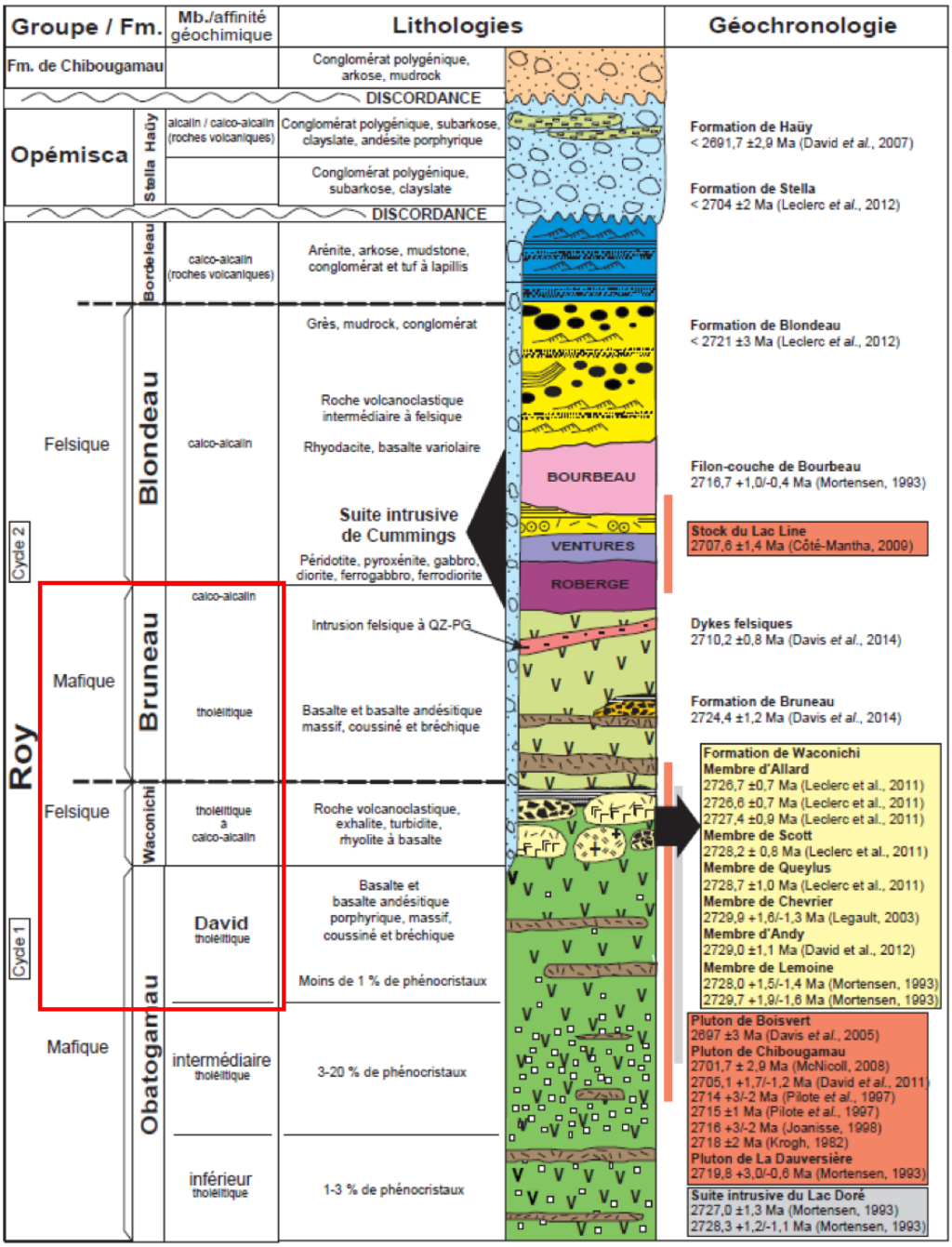


Figure 3

Stratigraphic column of the Chibougamau region with red frame showing the position of the David Property (from Leclerc et al. 2017).

Property Geology

The David Property is situated on the northern flank of the Chibougamau Anticline.

The southern part of the property is underlain by tholeiitic basalts and tuffs belonging to the Obatogamau Formation (David Member) overlain by transitional to calc-alkaline andesitic and dacitic flows of the Waconichi Formation (Allard Member). In the northern part of the property, the rocks are basalts and andesitic basalts belonging to the Bruneau Formation. This transition zone between two volcanic cycles is considered a promising area for VMS mineralization (Figure 4).

Structurally, the attitude of the stratigraphy is generally N265°/80° with tops facing north. Large folds are present in the area of the David Au and David Zn-Au showings, where changes in stratigraphic attitudes and tops directions have been documented.

The property is crossed by the Lac Sauvage Fault. This fault zone has been described by Daigneault (1990) as a wide deformation corridor, up to 400 m across, containing anastomosing shears. Generally, these zones are characterized by intensely developed foliation parallel to the strike of the beds and by iron carbonate alteration (ankerite and siderite). The principal direction of movement along the fault is essentially vertical.

1 Compilation and targeting

2 Regional data acquisition

- Secondary environment
- Airborne/helicopter geophysics

3 Basic Exploration

- Cartography/prospection
- Stripping
- Geophysics
- Drilling

4 Advanced Exploration

- Definition drilling
- Mettalurgical test
- Resources estimate

5 Development

- Conversion drilling
- Preliminary economic assessment
- Bulk sampling
- Prefeasibility study
- Feasibility study

6 Construction and setting

7 Operation

8 Restoration

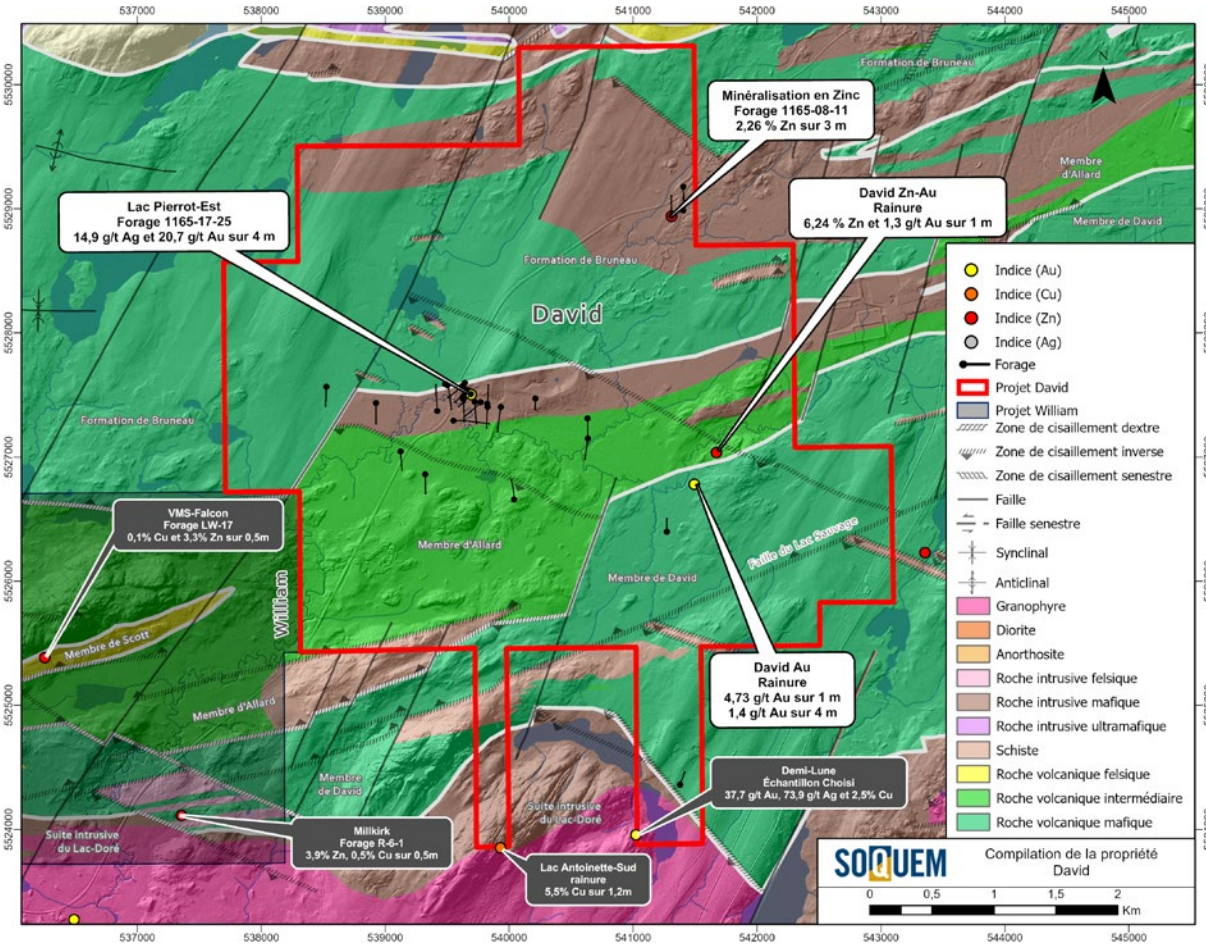


Figure 4

Geology map of the David property.

Mineralization, showings and target deposit types

The geological context of the David Property indicates good potential for gold, copper and zinc deposits. All the showings discovered to date are located within the same gold corridor oriented mainly N120°. This major gold corridor is interpreted as the northwest extension of the corridor hosting the Merrill, Principale, Chib-Kayrand and Obalski mines.

The David Property exhibits numerous showings and economic intervals as shown in the previous figure and in Table 1. Mineralization is in the form of disseminated sulphides or in veins and veinlets.

Area	Showing	Grade
Zincifère North	1165-08-11	0.52 % Zn / 24 m
	Including	*2.26 % Zn / 3 m*
	1165-17-24	1.06 % Zn / 4 m
		1.26 % Zn / 3 m
	1165-03-05	0.34 % Zn / 16 m
Pierrot-East Lake	1165-08-14	4.1 g/t Au, 3,6 % Zn / 1 m
	1165-05-08	0.25 g/t Au / 36,6 m
		0.32 g/t Au / 22 m
	1165-03-01	0,34 g/t Au / 26 m
	1165-17-27	153 ppm Ag / 1.5 m
	1165-17-25	20.7 g/t Au / 4 m
		1.6 g/t Au / 7.1 m
	1165-08-12	20.7 g/t Au, 4.7 % Zn / 0.5 m
	1165-09-19	2.0 g/t Au / 21 m
	DC-91-1	1.04 g/t Au / 0.8 m
David Zn-Au Showing	Channel	6.2 % Zn / 1 m
	Channel	4.0 g/t Au / 1 m
David Au Showing	Channel	4.73 g/t Au / 1 m
	Channel	1.4 g/t Au / 4 m

Table 1
Showings and mineralized intervals

VMS Mineralization

The first area of interest on the property contains the David Au showing (4.73 g/t Au over 1.0 m; 1.4 g/t Au over 4.0 m) and the David Zn-Au showing. A Master's thesis on the David showing area concluded that the mineralization is VMS type. Geoscientific work also revealed that the interface between the David and Allard members (Waconichi Formation) is a favourable setting for this deposit type (Clairet, 2017).

The new stratigraphic interpretation for the property has also enhanced its potential. In the central part of the property, the presence of a contact between units belonging to two distinct volcanic cycles suggests this area should be explored for VMS deposits.

A second VMS showing (Railroad showing) is present next to the property, in the northwestern part. The showing was found near its contact, at the same stratigraphic level as the Pierrot-East Lake showing. It is hosted in tuffs, samples yielded 1.5 g/t Au, 1.5% Cu and 3.43% Zn.

The VMS deposits in the Chibougamau region occur in the upper portion of the Roy Group volcanic cycles, at the interface between tholeiitic mafic volcanic rocks and transitional to calc-alkaline volcaniclastics (Leclerc et al., 2011, Mercier-Langevin et al., 2014).

Lemoine Mine

Between 1975 and 1983, the mine produced 757,585 t of ore grading 9.52% Zn, 4.18% Cu, 4.56 g/t Au and 82.26 g/t Ag. The deposit is located on the southern flank of the Chibougamau Anticline, at the end of the first volcanic cycle of the Roy Group in the Waconichi Formation. More precisely, the deposit is hosted in felsic to intermediate volcanic rocks of the Lemoine Member.

The mineralization is a single lens of massive sulphides of exhalative origin, 1 to 9 m thick, hosted in a crystal tuff. The lens is composed of sphalerite, chalcopyrite, pyrite and pyrrhotite with gold and silver. Near the mineralized lens, alteration is of low intensity and mainly characterized by the presence of carbonates and chlorite.

Lac Scott

The Lac Scott deposit, only 14 km from the David Property, was the subject of a mineral resource estimate published in 2017 (Table 2). The work in the Lac Scott area led to the discovery of 9 distinct massive sulphide lenses.

Category	Metric tons (t)	Cu (%)	Zn (%)	Au (g/t)	Ag (g/t)
Indicated	3,557,000	0.95	4.17	0.2	37
Inferred	14,281,000	0.78	3.19	0.2	22

Table 2

Lac Scott resource estimate (2017) (NI 43-101 compliant)

These mineralized bodies are hosted in a sequence of volcanic rocks belonging to the Scott Member. Mineralization is spatially associated with felsic volcanic rocks, namely the Scott rhyolite and Tony rhyolite. Excluding the Selco-Scott lens, the other massive sulphide lenses are between 200 and 1,000 m deep. The volcanic rocks are overprinted by strong and extensive hydrothermal alteration.

Epigenetic mineralization

Gold and/or copper-gold porphyry deposits associated with the epigenetic fracture zones of the Chibougamau mining camp are another exploration target. The distal parts of these fracture zones, with respect to the Lac Doré Complex, offer excellent discovery potential for porphyry deposits at the junction of specific stratigraphic units on the northern flank of the anticline. The deposits are located at the intersection of epigenetic fracture zones oriented NW-SE and N-S. These fracture zones can be identified by magnetic lineaments where IP conductors of different intensities are concentrated.

Drilling from 2003 to 2017 focused on the Lac Pierrot-East area. These drill holes encountered significant gold grades, such as hole 1165-03-01 which intersected basalt containing 1-5% pyrite that returned of 0.35 g/t Au over 48.0 m, including 1.80 g/t Au over 4.0 m and 1.44 g/t Au over 2.0 m.

Hole 1165-05-08 intercepted intervals of 0.37 g/t Au over 21.0 m and 0.24 g/t Au over 38.6 m including 1.08 g/t Au over 3.0 m, which confirmed the potential of this area. Hole 1165-08-14 yielded samples grading 4.2 g/t Au and 3.6% Zn over 1.0 m and 1.7 g/t Au over 1.2 m.

Finally, hole 1165-09-19 produced an encouraging intersection of 1.97 g/t Au over 21 m, including 3.1 g/t Au, 7.9 g/t Ag and 0.15% Cu over 12.0 m. All the lengths mentioned here are expressed as drill core lengths.

Obalski Mine

It is the closest mining operation to the project (<2km), owned by Tomagold and discovered in 1928 (90,137 tonnes at 1.17% Cu, 0.087 oz/t Au; 306,466 lbs Cu, 7,865 oz Au)

The Au-Cu mineralization of economic interest at the Obalski mine is mainly in the form of quartz-carbonate veins rich in sulphides (up to 60%) within highly chloritized, carbonatized and pyritized shear zones.

The first generation of veins is oriented N110°, which is globally the orientation of the structures that corresponds to the «mine shears» found in most of the deposits bordering the Chibougamau Pluton. These veins could be a more distal manifestation of this type of mineralization. A second generation of veins N80° oriented intersects and offsets the older structures.

Targets and summary of proposed work

It is strongly suggested that the first work be a drone-borne MAG survey flown over the entire property. This method is particularly effective in highlighting the structures responsible for the emplacement and control of mineralization.

It is worth noting that localized drilling in the gold-bearing intersected several intervals strongly mineralized in pyrite. There does not appear to be a direct link between pyrite and gold mineralization. This observation indicates that IP geophysics would not be useful for targeting mineralization.

Based on the latest results, no additional work has been recommended in the zinc-bearing area in the northern part of the property.

However, it is recommended that exploration continue in the Pierrot East Lake showing area to test for VMS and/or vein mineralization. Geochemical work has shown that the gold zone in hole 1165-17-25 is located at the interface between tholeiitic rocks and transitional to calc-alkaline rocks, which enhances the potential for VMS mineralization.

The gold zone appears to be well constrained in the west whereas it is only partially constrained in the east. To assess continuity moving eastward, three (3) drill holes for a total of approximately 600 m, should be planned at distances of 50 m, 100 m and 150 m to the east of the gold zone identified in drill holes 1165-09-19 and 1165-17-25.

Lithogeochemical resampling is also recommended to better characterize and quantify alteration and to identify units.

The compilation of surface work (trenches) could lead to a better understanding of the mechanisms of mineralization emplacement and possibly generate new exploration vectors. Particular attention should be given to textures, such as horizons with greater porosity, which would have facilitated the emplacement of mineralization, as discussed in the Master's work of Rémi Clairet (UQAC, 2017).

Claim status

Number of mining titles : **49**

The claims are free of any charge, restriction, royalty, hypothec or claim.

Total amount available :

$ 353,200

There are enough credits for three (3) renewals.

The mining title map is available in Appendix 2.

A more detailed legal history is available upon request.

Other documents and information available from SOQUEM

SOQUEM's Geotic database ;

- All holes drilled by SOQUEM, stored at the Chibougamau core shack ;

Summary of historical work (Appendix 1) (GM details available upon request).

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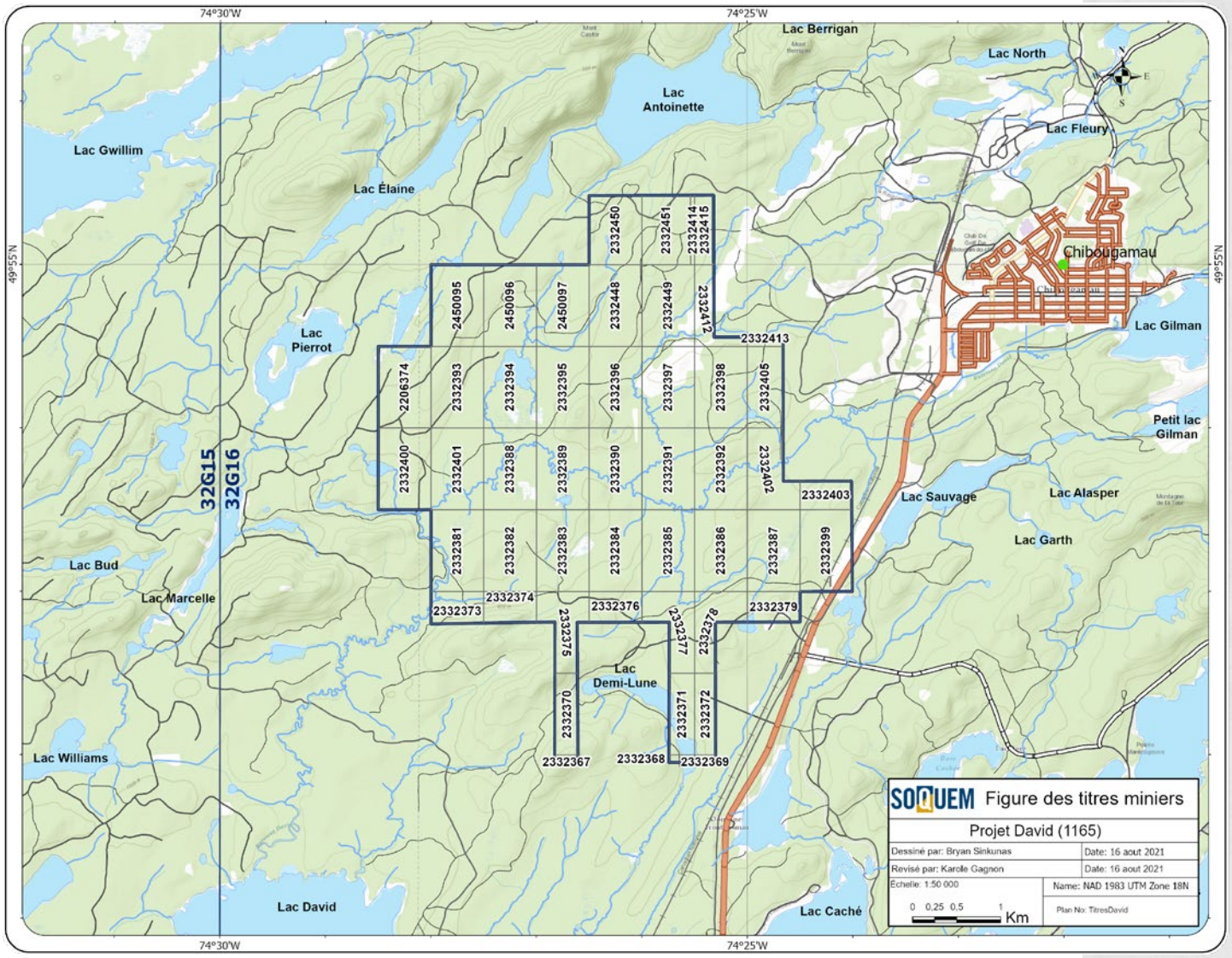
Appendix 1

Summary of historical work

Year(s)	Company	Type of work
1947-1992	Various companies	Geophysical, geological and drilling work (23 drill holes)
1995-1997	SOQUEM	Geophysics (IP, VLF survey), geology and stripping (77 sites)
2000-2006	SOQUEM	Geophysics (IP-MAG), stripping (10 sites), drilling (9 holes)
2008-2010	SOQUEM	Geophysics (IP-MAG, TDEM), drilling (14 drill holes)
2015-2017	SOQUEM	Geophysics (IP-MAG, EM), geology, drilling (4 drill holes, 1 284 m)

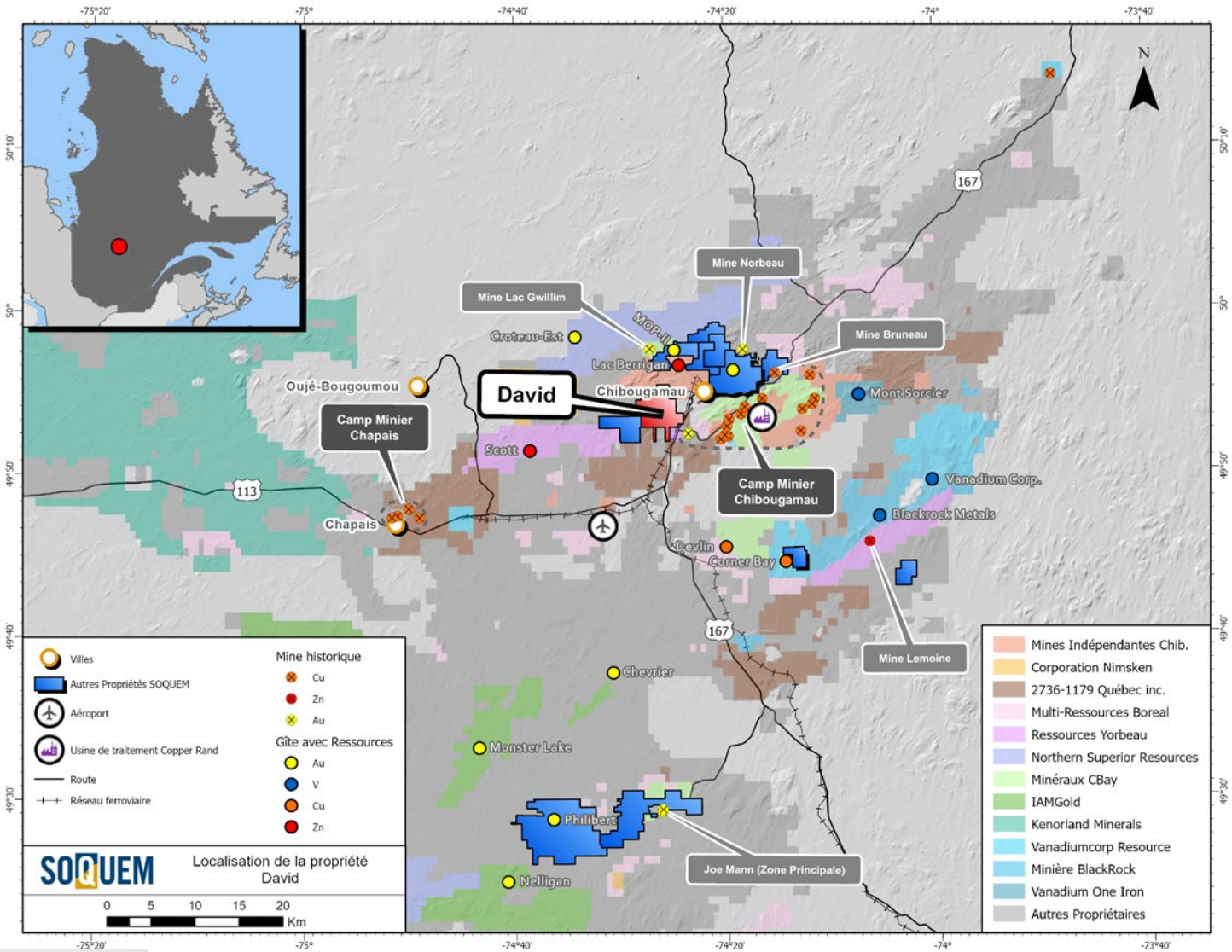
Appendix 2

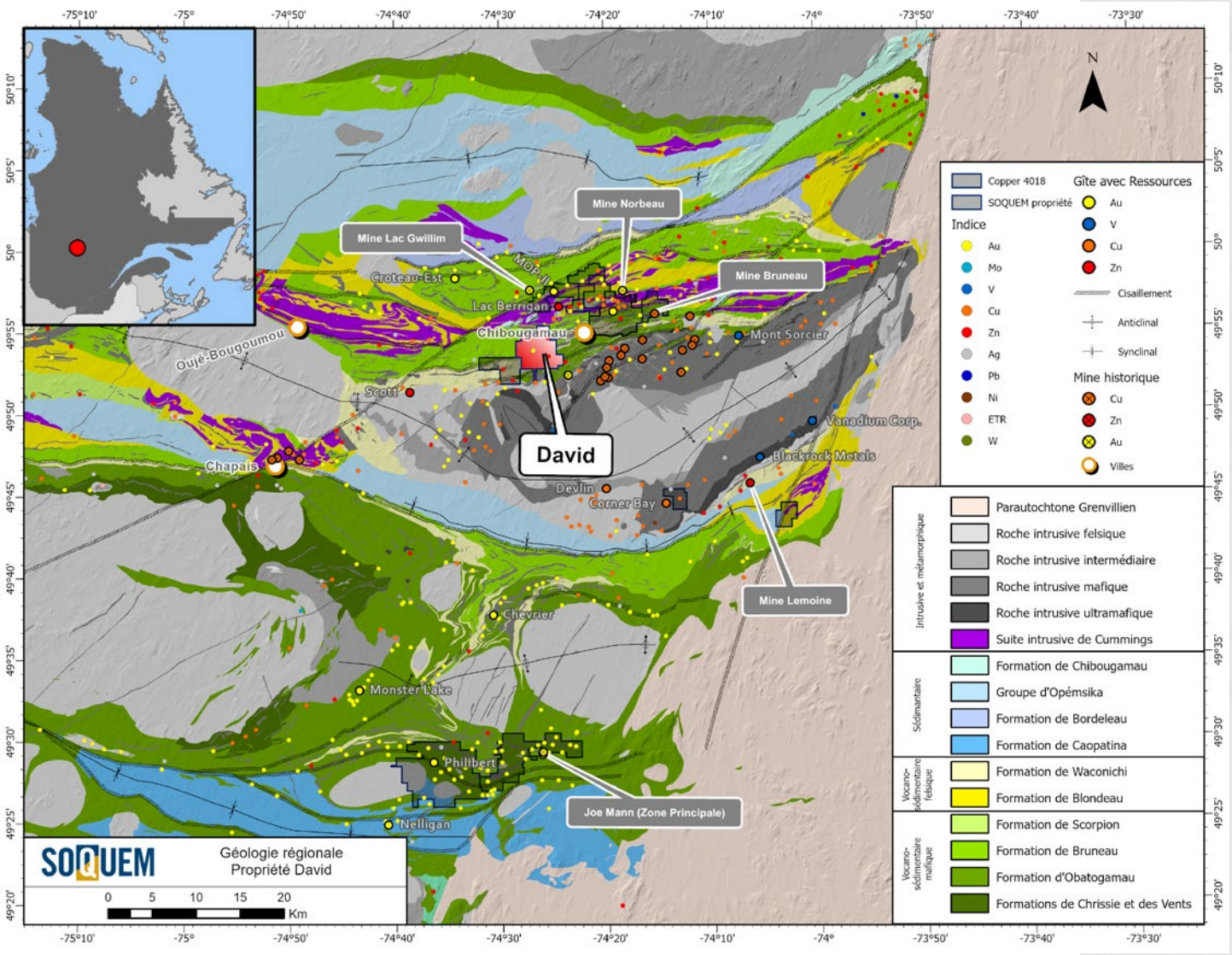
Mining title map



Appendix 3

Figures




Mine Norbeau
Mine Lac Gwillim
Mine Bruneau
Croteau-Est
Lac Berrigan
Chibougamau
Mont Sorcier
Ouje-Bougoumou
Scott
David
Vanadium Corp.
Blackrock Metals
Chapais
Devlin
Corner Bay
Mine Lemoine
Chevrier
Monster Lake
Philibert
Nelligan
Joe Mann (Zone Principale)
N
Copper 4018
SOQUEM propriété
Indice
Au
Mo
V
Cu
Zn
Ag
Pb
Ni
ETR
W
Gîte avec Ressources
Au
V
Cu
Zn
Cisaillement
Anticlinal
Synclinal
Mine historique
Cu
Zn
Au
Villes
Intrusive et métamorphique
Parautochtone Grenvillien
Roche intrusive felsique
Roche intrusive intermédiaire
Roche intrusive mafique
Roche intrusive ultramafique
Suite intrusive de Cummings
Sédimentaire
Formation de Chibougamau
Groupe d'Opémsika
Formation de Bordeleau
Formation de Caopatina
Volcano-sédimentaire felsique
Formation de Waconichi
Formation de Blondeau
Volcano-sédimentaire mafique
Formation de Scorpion
Formation de Bruneau
Formation d'Obatogamau
Formations de Chrissie et des Vents
SOQUEM
Géologie régionale
Propriété David
0 5 10 15 20
Km
-75°10' -75° -74°50' -74°40' -74°30' -74°20' -74°10' -74° -73°50' -73°40' -73°30'
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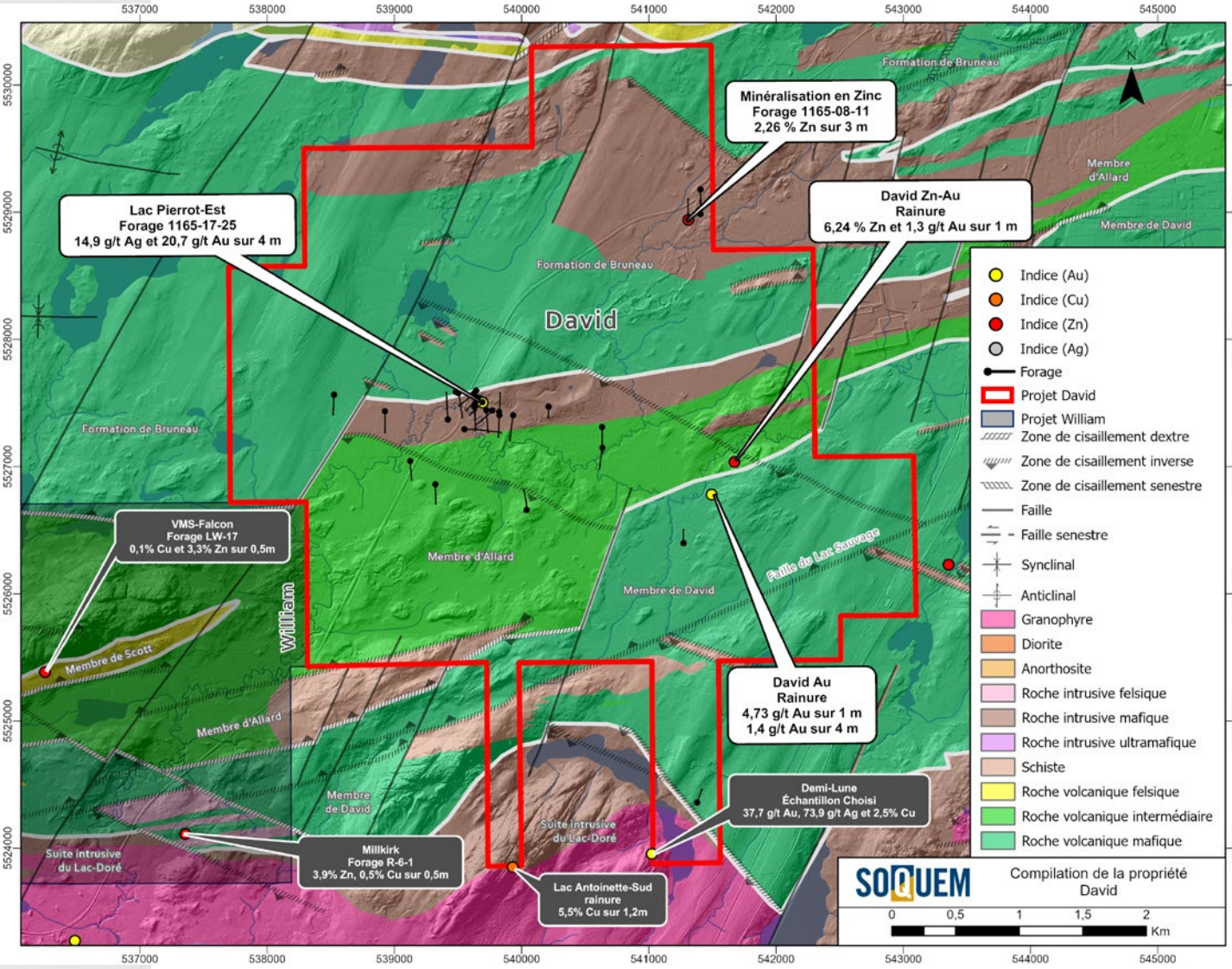
Minéralisation en Zinc
Forage 1165-08-11
2,26 % Zn sur 3 m
Lac Pierrot-Est
Forage 1165-17-25
14,9 g/t Ag et 20,7 g/t Au sur 4 m
David Zn-Au
Rainure
6,24 % Zn et 1,3 g/t Au sur 1 m
VMS-Falcon
Forage LW-17
0,1% Cu et 3,3% Zn sur 0,5m
David Au
Rainure
4,73 g/t Au sur 1 m
1,4 g/t Au sur 4 m
Demi-Lune
Échantillon Choisi
37,7 g/t Au, 73,9 g/t Ag et 2,5% Cu
Millkirk
Forage R-6-1
3,9% Zn, 0,5% Cu sur 0,5m
Lac Antoinette-Sud
rainure
5,5% Cu sur 1,2m
David
William
Formation de Bruneau
Membre d'Allard
Membre de David
Membre de Scott
Suite intrusive du Lac-Doré
Faille du Lac Sauvage
Indice (Au)
Indice (Cu)
Indice (Zn)
Indice (Ag)
Forage
Projet David
Projet William
Zone de cisaillement dextre
Zone de cisaillement inverse
Zone de cisaillement senestre
Faille
Faille senestre
Synclinal
Anticlinal
Granophyre
Diorite
Anorthosite
Roche intrusive felsique
Roche intrusive mafique
Roche intrusive ultramafique
Schiste
Roche volcanique felsique
Roche volcanique intermédiaire
Roche volcanique mafique
SOQUEM
Compilation de la propriété David
0 0,5 1 1,5 2 Km
N
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