

# northern **PROSPECTOR** 2020-2021

The annual mining & exploration review

An official publication of the Manitoba-Saskatchewan Prospectors and Developers Association

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*Voyageur Tara Lake drilling 2020*

# VOYAGEUR MINERAL EXPLORERS INC.

By Brian Howlett

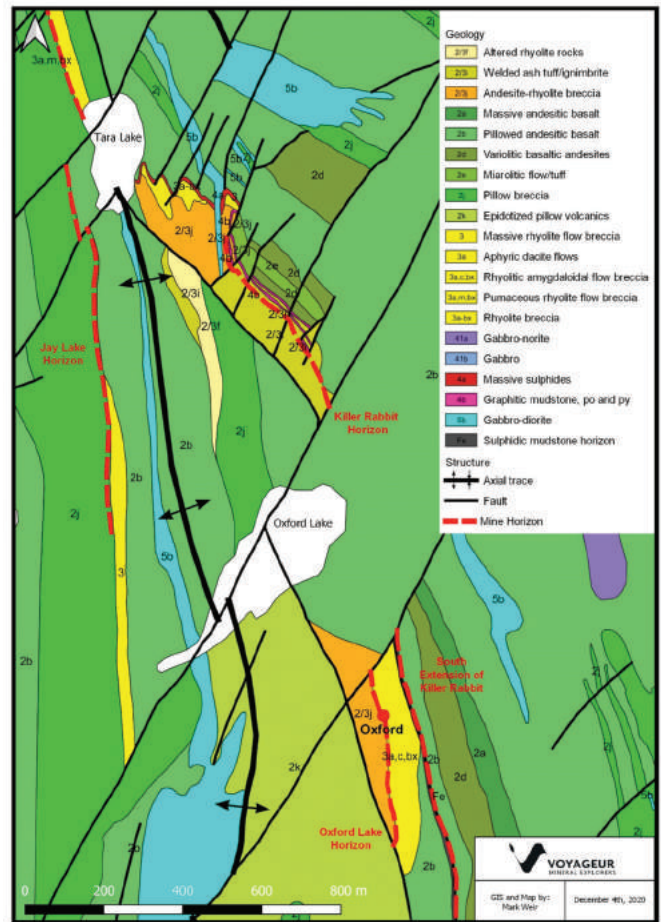
## TARGETING OPPORTUNITIES IN THE FLIN FLON CAMP

2020 represents a rebirth and rebranding year for Copper Reef Mining Corporation. With a new backing, a new share structure and a new name, Voyageur is poised to move ahead with an aggressive exploration program planned for 2021 and beyond. Voyageur has one of the largest claim packages in the Flin Flon-Snow Lake District in both Manitoba and Saskatchewan containing approximately 21,000 hectares; prospective for both VMS-style Cu-Zn-Au-Ag deposits as well as Au-Ag resources. In the 2021 drill program, the Company will be focusing the bulk of its efforts on the Big Island East Property where 2020 drilling and geological compilation has recognized further potential at the Tara Prospect. Map 1 shows the majority of Voyageur's properties.

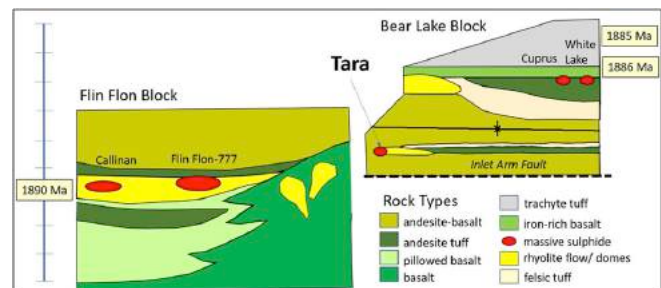
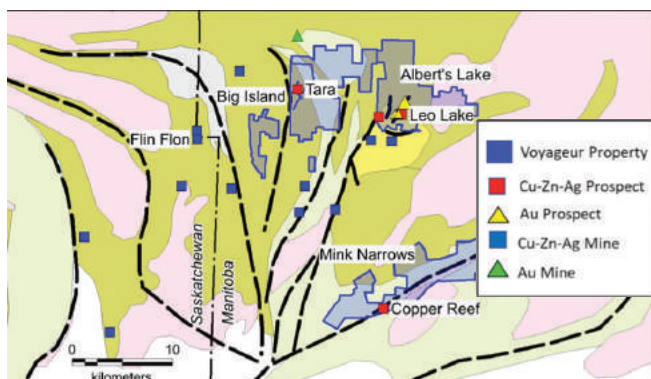
## BIG ISLAND EAST PROPERTY (TARA)

The Big Island East property lies approximately 12 kilometres east of the Flin Flon-777-Callinan series of mines. The property is part of several blocks of claims actively being explored for both Cu-Zn-Au and Au-Ag resources. Voyageur completed a drilling program in winter-spring of 2020 that included holes targeting the Tara Cu-Zn-Au-Ag Prospect. Results from the drilling were positive prompting a detailed review of the area to determine follow-up exploration work.

The Big Island Property occurs in the Bear Lake structural block comparable to the Flin Flon block hosting the giant Flin Flon-777-Callinan deposits. Massive sulphide Cu-Zn-Au-Ag mineralization within the Bear Lake block occurs at the Cuprus and the White Lake deposits in a volcanic sequence stratigraphically above the Flin Flon host rock horizons. The Bear Lake block volcanic sequence is dominated by a relatively thick sequence of andesite to basalt lava flows and sills that is directly comparable to rocks in the Flin Flon-777-Callinan hanging-wall. Felsic volcanic rocks occur throughout the Bear Lake block and have been the focus of exploration for Cu-Zn-Au-Ag resources particularly in the Tara Lake and Oxford Lake areas.



The Tara Cu-Zn-Au-Ag massive sulphide mineralized zone is hosted by felsic volcanics considered to be lower in the Bear Lake block sequence than the Cuprus-White Lake mineralized horizon. Age dating of the Tara area rocks has not been attempted, so a direct comparison to the Flin Flon felsic volcanics is tenuous. Felsic volcanic rocks in the Tara region have been mapped at surface over a two square kilometre area that likely represent a distinct volcanic eruptive centre that at this time has not been well defined, but will be the focus of future work to determine the potential size of the system and further prospectivity of mineralization.

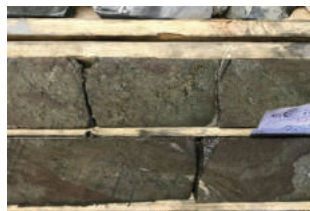


Schematic cross-sections through the Flin Flon and Bear Lake structural blocks showing the stratigraphic position of massive sulphide mineralization. Published age dates of individual units are highlighted in yellow (after Syme and Bailes, 1993; Galley et al., 2009).

HOLE-ID	From (m)	To(m)	Width (m)	Cu (%)	Zn (%)	Au (g/t)	Ag (g/t)	Stratigraphy
TZ20-07	57.0	77.9	20.9	0.77	17.18	4.40	109.2	Tara Main
including	61.5	68.5	7.0	1.45	19.58	4.86	178.0	
TZ20-07	40.6	46.6	6.0	1.16	0.68	0.85	34.6	Tara FW
TZ-413-88-16	54.1	63.5	9.6	0.78	10.45	2.82	46.8	Tara Main
including	54.1	56.6	2.7	1.95	22.70	6.36	100.0	
TZ-413-88-16	108.8	113.3	4.5	0.75	1.36	0.52	14.4	Distal
TZ-413-88-16	228.9	232.5	3.6	0.12	0.32	0.41	3.5	Distal
TZ-413-88-39	141.9	152.9	11.0	0.04	0.92	0.07	3.6	Distal
TZ-413-87-10	142.0	148.0	7.0	0.13	0.91	0.11	2.8	Tara South

Table of drilling results representative of mineralization throughout the Tara area.

Massive sulphide mineralization occurs at surface at the Tara Prospect that was trenched and drilled between 1987 and 1988. Mineralization is particularly Zn-rich and drill holes near the exposures reported intersections up to 12.4 metres of 22.44 per cent Zn, 0.58 per cent Cu and 85 g/t Ag. Massive sulphide mineralization is also particularly gold rich with the highest-grade gold returned from this drilling program near the exposures grading 46.9 g/t Au along with 180 g/t Ag, 6.34 per cent Zn and 1.29 per cent Cu over 0.45 metres. Subsequent drilling targeted extensions to mineralization intersecting variably altered volcanic rocks and sparse zinc-enriched mineralization that also included anomalous silver and gold over a wide area.



Drill core photos from 2020 Voyageur drilling. Left photo: massive sphalerite and pyrite.



Right photo: chalcopryite-pyrite stringers in intensely chlorite-sericite alteration of the host felsic volcanic rocks.

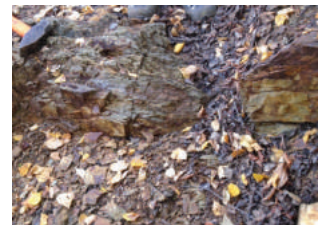
Voyageur's 2020 drilling revealed the Tara mineralization and wallrock mineralization is similar to that found throughout the Flin Flon district where deformation can be complicated. Folding of the massive sulphide horizon and the host felsic volcanic rocks is pronounced at the surface exposures such that many of the previous drill holes did not test the extension of mineralization to depth below 150 metres from surface. The footwall alteration to mineralization exposed at surface is intense consisting of chlorite and sericite. Compilation of previous exploration work and re-interpretation of the stratigraphy has placed drilling results into a geological context comparable to the Flin Flon deposit model.

In addition to the exposures at Tara, similarly altered and weakly mineralized felsic volcanic rocks are found in outcrop 300 metres south that are interpreted as a fault offset equivalent. Alternatively, these rocks to the south maybe a repetition of the host sequence considering the nature of folding at the Tara exposures.

Altered and weakly mineralized felsic volcanic rocks also occur further south of Oxford Lake where previous sporadic drilling has intersected Zn mineralization. Airborne electromagnetic conductors have been identified in a survey flown by Voyageur in this area at Oxford that may have not been well tested by the previous diamond drilling programs.



Left photo: exposures of massive sulphide mineralization and altered felsic volcanics at the Main Tara showing (looking west).



Right photo: altered and rusty coloured pyrite mineralization in felsic volcanic rocks at Tara South.

The Voyageur drilling results in 2020 have re-vitalized interest in the Tara Prospect as well as the surrounding area within the Big Island East property. The zinc-rich nature of mineralization at Tara compared to the Flin Flon deposits suggests this maybe the distal expression of a larger hydrothermal system nearby. Copper-rich mineralization may occur at depth and will be targeted using an integrated geological approach. The exposures at Tara reveal locally well-developed folding that has not been recognized elsewhere since most mapping in the Bear Lake structural block has been at regional scale. As such, the outlook for further Cu-Zn-Au-Ag mineralization within the Big Island East Property remains encouraging. ✕