



## NEWS RELEASE

### **Foran Reports Positive Metallurgy for the Bigstone Copper-Zinc Deposit, Hanson Lake Camp**

- ***High-Grade Copper and Zinc Concentrates with Good Recoveries***
- ***Mineralization Amenable to Conventional Flotation***

**Vancouver, BC (November 17, 2015) - Foran Mining Corporation** (TSX.V: FOM) ("Foran" or the "Company") is pleased to announce positive results for initial metallurgical testwork (the "Program") on the Company's 100% owned Bigstone deposit ("Bigstone"). Bigstone is located in the Hanson Lake Camp in east-central Saskatchewan, approximately 25km southwest of the Company's McIlvenna Bay deposit and 85km west of Flin Flon, Manitoba.

The Program was conducted on composite drill core samples from each of the three main styles of mineralization at Bigstone, namely the Main Zone (Copper), Main Zone (Zinc) and Massive Sulphides (Zinc). The Main Zone (Copper) is the most significant of the three styles of mineralization. The program was designed to test the amenability of these styles of mineralization to produce copper and zinc concentrates. All styles of mineralization produced high-grade concentrates with good recoveries.

Highlights of the Program included:

- Recoveries of 93% Cu, 52% Au and 82% Ag to a copper concentrate grading 29.2% Cu, 1.9 g/t Au and 118 g/t Ag from the Main Zone (Copper),
- Recovery of 90% Zn to a zinc concentrate grading 55.3% Zn and recoveries of 43% Cu, 48% Au and 38% Ag to a copper concentrate grading 29.4% Cu, 7.7g/t Au and 238 g/t Ag from the Main Zone (Zinc),
- Recoveries of 90% Zn and 73% Ag to a zinc concentrate grading 54.1% Zn and 471g/t Ag from the Massive Sulphides (Zinc),
- Mineralization is amenable to conventional flotation processes to recover the base and precious metals to saleable concentrates, and
- Grindability testwork indicates moderate hardness for the three styles of mineralization.

Patrick Soares, President and CEO of Foran commented "Our winter 2015 infill drill program at Bigstone exceeded our expectations, with broad intercepts of high-grade copper and/or zinc mineralization in all holes drilled. The positive metallurgical results released today demonstrate that mineralization at Bigstone is amenable to the production of saleable copper and zinc concentrates using a conventional flotation circuit. Based on these results, Foran will review next steps to maximize the value of the Bigstone deposit."

## **Geology & Mineralization**

Bigstone consists of two main mineralized horizons: a large replacement-style sulphide body (the "Main Zone") interpreted to have formed below the seafloor, overlain by a zinc-rich massive sulphide horizon (the "Massive Sulphides"). The Main Zone contains a copper-rich core that makes up the bulk of the deposit, consisting of coarse disseminated to semi-massive and locally veined pyrrhotite, chalcopyrite and magnetite (+/- pyrite, arsenopyrite and sphalerite). Peripherally, the Main Zone appears to transition into more zinc-rich mineralization hosted primarily by stringer-style sphalerite, pyrite, and pyrrhotite (+/- chalcopyrite).

Base metal sulphide mineralization at Bigstone is hosted within an intensely altered and metamorphosed volcanic assemblage with footwall quartz+/-feldspar porphyry and hangingwall rhyolite tuffs and graphitic argillite. Stratigraphy is west-facing and upright to steeply west dipping. The Main Zone occurs as a vertical to steeply south-plunging, flattened cylinder up to 60m thick with a strike length of approximately 150m, drill tested from 100 to 600m below surface. Alteration through the Main Zone is intense and transitional from silica-sericite to an iron-rich assemblage of chloritoid-chlorite-garnet-magnetite which tends to overprint and obscure the host rocks making identification of the primary lithologies difficult. The Main Zone is stratigraphically overlain by the high-grade, zinc-rich Massive Sulphide horizon, which is up to 10m thick and measures approximately 200 by 400m.

Foran's 2015 winter campaign tested the central part of Bigstone at vertical depths of 200 to 350m with six drill holes, all of which intersected broad intervals of copper +/-zinc mineralization (see the Foran news release dated May 20, 2015). Highlights from the 2015 winter drill campaign included:

- 2.0% Cu over 105.0m, including 4.1% Cu over 20.4m (BS-15-239),
- 2.5% Cu over 53.6m, including 4.0% Cu over 12.3m (BS-15-242), and
- 18.4% Zn over 11.8m, including 27.0% Zn over 7.6m (BS-15-240)<sup>1</sup>

An historic mineral resource was estimated for Bigstone in 1990 (the "Historic Resource")<sup>2</sup>. The Historic Resource includes 3.75Mt grading 2.03% Cu and 0.33 g/t Au at a 1% Cu cutoff for the Main Zone and 0.53Mt grading 9.62% Zn and 15.9 g/t Ag at a 5% Zn cutoff for the Massive Sulphides.

<sup>1</sup> Cu = copper, Zn = zinc, m = metres; true thickness estimated at approximately 50-60% of downhole distance.

<sup>2</sup> The Historic Resource was estimated by Cameco in 1990; Foran is not treating the Historic Resource as current; a Qualified Person within the meaning of National Instrument 43-101 has not completed sufficient work to classify the Historic Resource as current; additional work, including that which has been undertaken by Foran in 2015, would be required to verify and upgrade the Historic Resource to current.

## **Initial Metallurgical Results**

Three composite samples, termed the Main Zone (Copper), Main Zone (Zinc) and Massive Sulphides (Zinc), were collected from quartered HQ diameter core from 2015 diamond drilling on Bigstone. The

Program was designed to test the recovery characteristics of the three composites utilizing conventional flotation methods followed by locked cycle tests to produce copper and zinc concentrates. The results of the locked cycle tests are provided in Table 1 and are further discussed below. Bond work indices were also determined; the results are presented in Table 2.

**Table 1: Overall Metallurgical Response**

<b>Main Zone (Copper)</b>									
Product	Mass	Concentrate Grade				Recovery			
		Cu	Zn	Ag	Au	Cu	Zn	Ag	Au
	(%)	(%)	(%)	(g/t)	(g/t)	(%)	(%)	(%)	(%)
Feed	100	1.85	0.10	9	0.21	100	100	100	100
Copper Concentrate	5.9	<b>29.2</b>	0.59	<b>118</b>	<b>1.8</b>	<b>93</b>	35	<b>82</b>	<b>52</b>
<b>Main Zone (Zinc)</b>									
Product	Mass	Concentrate Grade				Recovery			
		Cu	Zn	Ag	Au	Cu	Zn	Ag	Au
	(%)	(%)	(%)	(g/t)	(g/t)	(%)	(%)	(%)	(%)
Feed	100	0.70	5.22	6	0.16	100	100	100	100
Copper Concentrate	1.0	<b>29.4</b>	2.32	<b>238</b>	<b>7.7</b>	<b>43</b>	0	<b>38</b>	<b>48</b>
Zinc Concentrate	8.5	3.06	<b>55.3</b>	24	0.32	37	<b>90</b>	32	17
<b>Massive Sulphides (Zinc)</b>									
Product	Mass	Concentrate Grade				Recovery			
		Cu	Zn	Ag	Au	Cu	Zn	Ag	Au
	(%)	(%)	(%)	(g/t)	(g/t)	(%)	(%)	(%)	(%)
Feed	100	0.24	10.1	108	0.29	100	100	100	100
Zinc Concentrate	16.8	0.99	<b>54.1</b>	<b>471</b>	1.1	70	<b>90</b>	<b>73</b>	65

**Table 2: Bond Work Indices**

Composite	Bond Rod Mill Grindability Test Work Index (kWh/tonne)	Bond Ball Mill Grindability Test Work Index (kWh/tonne)	Abrasion (g)
Main Zone (Copper)	15.9	13.5	0.494
Main Zone (Zinc)	14.9	12.5	0.481
Massive Sulphides (Zinc)	14.2	11.1	0.381

A total of 560 kilograms of material was shipped to Base Metallurgical Laboratories Ltd. ("Base Met Labs") in Kamloops, B.C. for processing. The nominal primary grind size was 100µm K80, with target regrind sizes for the concentrates of 30 to 40µm K80.

### **Main Zone (Copper)**

The Main Zone (Copper) composite was dominated by copper mineralization with very little zinc. Flotation testing focused on production of a gold- and silver-bearing copper concentrate. Optimization of the process was limited to testing various primary grind sizes, collector types and the effect of regrind sizes. Flotation response was very robust, allowing for the use of low-cost collectors (xanthate) and simple pH modulation of the flotation circuit to control pyrite and other unwanted sulphides.

### **Main Zone (Zinc)**

The Main Zone (Zinc) feed had copper and zinc concentrations that required production of separate concentrates. The copper concentration in the feed was considerably lower than the zinc. Limited optimization was conducted on this sample, focused on controlling zinc recovery to the copper concentrate and producing high grade zinc concentrates.

The initial results were very encouraging, demonstrating very good zinc flotation performance. The copper circuit produced a high-grade copper concentrate, with lower recoveries. This style of mineralization would benefit from further optimization testing focusing reagent and regrind optimization in the copper and zinc.

### **Massive Sulphides (Zinc)**

The Massive Sulphide (Zinc) composite had a high zinc concentration, with relatively low levels of copper; the sample contained abundant iron sulphides.

Flotation testing was focused on production of only a zinc concentrate from this mineralization. Batch testing investigated the effect of regrind on the rougher concentrate and effect of elevated pH in the cleaner circuit. The test results indicated that elevated pH levels and the use of more selective collectors were beneficial (Dithiophosphates), resulting in the production of higher grade zinc concentrates.

### **Bond Work Indices**

Bond rod mill work index determinations for the composites ranged from 14.2 kWh/tonne to 15.9 kWh/tonne, with an average of 15.0 kWh/tonne. Bond ball mill work index determinations for the composites ranged from 11.1 kWh/tonne to 13.5 kWh/tonne, with an average of 12.4 kWh/tonne (Table 2). Based on these results the mineralization would be considered to have a moderate hardness from a rod and ball milling perspective.

### **Laboratory & Qualified Persons**

The Program was conducted at Base Met Labs. Tom Shouldice, P.Eng., Principal Metallurgist of Base Met Labs and a Qualified Person within the meaning of National Instrument 43-101, supervised the Program. Mr. Shouldice has reviewed and approved the technical information relating to the Program in this release.

Roger March, P.Geo., VP Project Exploration for Foran and a Qualified Person within the meaning of National Instrument 43-101, supervised the collection of sample material for the Program and has reviewed and approved the technical information, other than that related to the Program, in this release.

### **About Foran Mining**

Foran is an exploration and development company focused on copper-zinc in the Hanson Lake Camp of east-central Saskatchewan. The Hanson Lake Camp is located in an area of excellent infrastructure, close to a major mining centre. In late 2014, Foran released a positive Preliminary Economic Assessment for the McIlvenna Bay deposit, Foran's first deposit in the Hanson Lake Camp.

Foran trades on the TSX.V under the symbol "FOM".

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