# HANNAN METALS LTD.

# MANAGEMENT'S DISCUSSION AND ANALYSIS FOR THE YEAR ENDED MAY 31, 2019

This discussion and analysis of financial position and results of operation is prepared as at September 27, 2019 and should be read in conjunction with the audited consolidated financial statements and the accompanying notes for the years ended May 31, 2019 and 2018 of Hannan Metals Ltd. ("Hannan" or the "Company"). The following disclosure and associated financial statements are presented in accordance with International Financial Reporting Standards ("IFRS"). Except as otherwise disclosed, all dollar figures included therein and in the following management discussion and analysis ("MD&A") are quoted in Canadian dollars.

#### **Forward-looking Statements**

This MD&A contains certain statements that may constitute "forward-looking statements". Forward-looking statements include but are not limited to, statements regarding future anticipated exploration programs and the timing thereof, and business and financing plans. Although the Company believes that such statements are reasonable, it can give no assurance that such expectations will prove to be correct. Forward-looking statements are typically identified by words such as: believe, expect, anticipate, intend, estimate, postulate and similar expressions, or which by their nature refer to future events. The Company cautions investors that any forward-looking statements by the Company are not guarantees of future performance, and that actual results may differ materially from those in forward looking statements as a result of various factors, including, but not limited to, the Company's ability to identify one or more economic deposits on its properties, to produce minerals from its properties successfully or profitably, to continue its projected growth, to raise the necessary capital or to be fully able to implement it business strategies.

Historical results of operations and trends that may be inferred from this MD&A may not necessarily indicate future results from operations. In particular, the current state of global securities markets may cause significant reductions in the price of the Company's securities and render it difficult or impossible for the Company to raise the funds necessary to continue operations.

All of the Company's public disclosure filings, including its most recent management information circular, material change reports, press releases and other information, may be accessed via <u>www.sedar.com</u> or the Company's website <u>www.hannanmetals.com</u> and readers are urged to review these materials.

#### **Company Overview**

The Company currently is a reporting issuer in British Columbia and Alberta. The Company's common shares are listed on the TSX Venture Exchange ("TSXV") and trade under the symbol "HAN". The Company's principal, registered and records office is located at #1305 - 1090 West Georgia Street, Vancouver, British Columbia V6E 3V7.

The Company's activities have been primarily focused on the exploration of its base metal project in Ireland, named Kilbricken, located in County Clare. Commencing September 2018 the Company identified other opportunities in Peru and, as of the date of this MD&A, the Company has submitted applications for 50 claims (the "San Martin Project") in Peru in three project areas, named Tabalosos, Gera and Sacanche.

# **Property Update**

#### San Martin Copper-Silver, Peru

In September 2018 the Company identified an opportunity to diversify its base metal portfolio and staked claim applications for copper in Peru. As of the date of this MD&A the Company has staked 38,600 hectares in three different project areas named Tabalosos, Gera and Sacanche. The San Martin Project is located about 30 kilometres northwest of Tarapoto, in the Cordillera Ayu Mayo. The mineral claim applications cover 76 kilometres of combined strike of the prospective host horizon within a 110 kilometre long basin. Project access is excellent via a

proximal paved highway, while the altitude varies between 800 metres to 1,600 metres in a region of high rainfall and predominantly forest cover.

Key points are:

- A new frontier basin-scale copper (chalcocite) district
- Permit applications for 38,600 ha covering 76 kilometres of strike
- Initial prospecting 2018 / 2019 identified high grade mineralization in outcrop and float and alteration in an area covering 100km x 50km. Similar style of outcrop/boulders have been discovered over 100km of strike
- Best results from outcrop 20km apart:
  - 3m @ 2.5% Cu and 22g/t Ag (LD190517-19)
  - 2m @ 5.9% Cu and 66g/t Ag (TC190536-38)
- Mineralization forms at multiple stratigraphic levels and is spatially linked to salt structures

During late 2018 initial sampling was conducted on the Tabalosos claims. While only a smaller proportion of the claims were accessible owing to seasonal rains, four separate areas of high-grade mineralized copper-silver boulders were discovered over a 15-kilometre strike, across multiple structures. Grab samples taken from nineteen mineralized boulders (>0.1% copper) within creeks which drain outcrop returned values ranging from 0.1 to 8.3% copper and 0.2 to 109 g/t silver with an average grade of 2.8% copper and 27.2 g/t Ag over 15 kilometres of strike across two structural corridors, highlighting the potential for discovery of a strike extensive near-surface, sediment-hosted copper deposit. Grab samples are selected samples and not necessarily representative of the mineralization hosted on the property.

Additional work was conducted at the western part of Tabalosos in July 2019. Grab samples obtained from six mineralized boulders (>0.1% copper) range in grade from 0.8% to 11.5% copper and 8 g/t silver to 28 g/t silver with an average grade of 4.2% copper and 17 g/t silver over a 5-kilometre strike. The new area is located 3.5 kilometres immediately west of the initial discovery made in late October 2018. Additionally, a grab sample from a boulder located 8.5 kilometres south of Tabalosos South West assayed 12.3% copper and 70 g/t silver in an adjacent anticlinal fold limb.

During March 2019 the Gera claims were visited for early stage reconnaissance mapping. The work identified similar style geology as the Tabalosos and Sacanche prospects and the Gera prospect is prospective for similar style mineralization. In total the Gera claims cover 10,000 hectares and are located immediately NW of the Tabalosos claims.

The Sacanche claims are an extension of the sediment-hosted copper-silver mineralized position discovered in Gera and Tabalosos claims. A total of 8,900 hectares of claim applications have been lodged for the Sacanche area, located 44 kilometres south of the central and initial Tabalosos claim application. Hannan has conducted initial recognise field work in May/June 2019. Multiple mineralized stratigraphic positions and styles have now been defined across the property.

Recent results from Sacanche North include:

•

- Rock chip channel samples from outcrop separated by 5.4 kilometres:
  - 2 metres @ 5.9% copper and 66 g/t silver with the wider zone assaying 3 metres @ 4.1 % copper and 45 g/t silver; 0.6 metres @ 8.7% copper and 59 g/t silver;
- High-grade grab sample from float assayed 30.1% copper and 595 g/t silver within proximity to channel samples.

Recent results from Sacanche South include:

- Detailed mapping and sampling of copper-mineralized outcrops was completed over 1 kilometre of strike, with highlight rock chip panel sampling results including
  - 3 metres @ 2.5% copper ("Cu") and 22g/t silver ("Ag");
- Two areas of high-grade copper and silver have been found over 3.5 kilometres within creeks at the Sacanche claim application area. Ten grab samples from mineralized float in riverbeds (>0.1% copper) ranged in grade from 0.4% to 5.0% copper and 4 g/t to 33 g/t silver and averaged 2.7% copper and 17 g/t silver;

• A >50-metre-wide gossanous zinc-lead outcrop that was discovered with over 50 metres strike length. Four grab samples from different parts of the outcrop ranged in grade from 0.1% to 2.4% zinc ("Zn") and 0.2% to 1.0% lead ("Pb") and averaged 1.0% zinc and 0.7% lead

The San Martin project lies in the Sub-Andean zone of Andean Cordillera. Since the 1970's the area has principally been explored for petroleum, delivering large seismic datasets similar to those being used by Hannan for targeting of zinc in Ireland. Seismically-defined basin structures and stratigraphy are now being interpreted in the context of sediment-hosted copper mineralization.

The Sub-Andean zone is underlain by a series of retro-arc foreland basins that were inverted during the Mid-Eocene and the Miocene. The inversion exposed a rift sequence initiated in the late Permian, composed of red beds and thick basin-wide evaporites. These rocks are contemporary to the Pucara and Mitu Groups in western Peru. The geological history shows a strong similarity to sedimentary basins which host giant sediment hosted copper deposits with respect to the stratigraphy, basin architecture, presence of thick evaporites and long periods of quiescence.

Copper and silver mineralization is hosted by the 150 Ma Saraquillo Formation, which was deposited in an intracontinental basin during the Jurassic-Early Cretaceous period. The Saraquillo Formation is 1.2-1.8 kilometres thick and extends for over 1,000 kilometres of strike. The Saraquillo Formation is spatially associated with salt domes which supports the seismic observations of widespread evaporitic strata, with several small artisanal salt and copper mines present in the area. Copper mineralization discovered to date is associated with the contact of fine-grained reduced carbonaceous sandstones with highly oxidized red beds of the Saraquillo Formation. Chalcocite is the dominant copper sulphide and it is always found together with carbonaceous material. Chalcocite occurs as fine disseminations, fracture filling and centimetre-sized massive aggregates. Secondary copper minerals are common on exposed surfaces. Albitization and silicification is associated with the mineralization, where the former dominates in more strongly mineralized samples.

Management of Hannan have had significant prior experience in Peru, which is the world's second largest copper producer, with steady growth predicted over the coming years. The country's copper output is forecast to increase from 2.5 million tonnes ("Mt") in 2018 to 3.8Mt by 2027, averaging 4.7% annual growth. Sediment-hosted deposits are the world's second most important source of copper accounting for approximately 20% of world production.

# Future Developments

At the date of this MD&A the claim applications are in process and have not been granted, with the first mining claims expected to be granted during Q4 2019. Hannan will then commence a social program and baseline study. This will be followed by more detailed field work of mapping and sampling. A remote landsat study is also planned. Drill-testing of preliminary targets is expected in April/May 2020.

# Clare Zinc-Lead-Silver Project, Ireland

On January 9, 2017 the Company closed the acquisition of Hannan Metals BC Ltd. ("Hannan BC") which owns Hannan Metals Ireland Limited ("Hannan Ireland"). Hannan Ireland is currently the registered holder of a 100% interest in ten prospecting licences ("PLs") located in County Clare, Ireland (the "Licences"). Under a separate asset purchase agreement (the "Asset Purchase Agreement") between Hannan Ireland and Lundin Mining Exploration Limited ("Lundin"), an Irish subsidiary of Lundin Mining Corporation (TSX: LUN), Hannan Ireland purchased all exploration data associated with the Licences from Lundin. Hannan has now made all cash payments totalling US \$1,000,000 to Lundin Mining Ltd to complete its purchase of the project. Lundin will retain a 2% net smelter return royalty on all sales of mineral products extracted from the project area, subject to certain buy back provisions. Hannan Ireland is also required to pay Lundin a one-time bonus payment of US \$5,000,000 within the earlier of (i) Hannan Ireland's decision to proceed with mine construction or (ii) within 90 days of the establishment of a commercial financing to finance capital costs for mine construction.

The Clare zinc-silver-lead-copper property (the "Clare Project") currently consists of ten PLs granted and issued by the Exploration and Mining Division ("EMD") of the Department of Communications, Climate Action and Environment in County Clare, Ireland. The western edge of the prospect area is 1.5km east of the town of Ennis. All prospecting licences of the Clare Project are 100% owned by Hannan Ireland.

The Irish base metal ore field is considered one of the world's best mineralized zinc provinces and is considered highly prospective for new zinc discoveries. In 2015 Ireland was the world's 10<sup>th</sup> largest zinc producing nation with 230,000 tonnes produced.

The Clare Project is underlain by Upper Devonian (sandstones) to Lower Carboniferous (sandstones and limestones) rocks. The stratigraphy appears simple; beds are the right way up and most of the major units are consistent in thickness across the property, however syn-rift and/or later structures complicate the geological framework. The stratigraphic succession of the Irish Lower Carboniferous is well constrained throughout, with the exception of the uppermost units. The axis of an open syncline runs southwest-northeast through the centre of the Clare Project. Beds dip at between 10 and 15 degrees towards the centre of the syncline. The Lower Carboniferous sequence includes the Waulsortian Limestone, which hosts most of Ireland's important zinc-lead sulphide deposits, such as the Lisheen (pre-mining resource 18.9 Mt @ 15.0% Zn+Pb) and Galmoy (pre-mining resource of 6.2 Mt @ 12.4% Zn+Pb) deposits. This data has been sourced from the Irish Exploration, Mining Division website http://www.mineralsireland.ie/. The Company has been unable to independently verify the information and states that the information is not necessarily indicative of the mineralization on the Clare Project.

The Clare Project has a rich history of small scale 19<sup>th</sup> century mining. Modern exploration efforts from the early-1960's, by Irish Base Metals, Rio-Finex, Central Mining Finance, Billiton and Belmore Resources Ltd followed up some of these earlier historic mines.

There are two known Waulsortian-hosted zinc-lead deposits on the property, the flagship Kilbricken prospect (see below) and the smaller Milltown prospect, where Belmore Resources Ltd ("Belmore") intersected 13.3m @ 5.8% Pb and 10.5% Zn from 45.4 metres in drill hole 3788/19 in 1994. The lowest part of the sequence is also prospective for copper-silver mineralization and contains numerous copper showings, most notable at Ballyvergin where Irish Base Metals drilled hole BV11 which intersected 31.5m @ 1.0% Cu from 51.7 metres in the 1960s. Given the general flat lying and stratabound nature of mineralization and steep angles of all drillholes mentioned, the true thickness of the mineralized intervals quoted is interpreted to be approximately 95% of the sampled thickness.

Significant historic exploration on the Clare Project has concentrated on three project areas and on identifying other areas of the Clare Project which have the potential to warrant similar investigation. The project areas are:

- Kilbricken
- Ballyvergin
- Kilmurry

In 2008, Belmore, a private Irish company, drill tested the base of the Waulsortian Limestone beneath near-surface sulphidic and calcite veined shelf carbonates at the historic Kilbricken lead mine. The discovery drillhole at Kilbricken, DH04, intersected 10m @ 13.8% Zn, 5.5% Pb, 0.08% Cu, and 62.8g/t Ag from 448.1 metres at the targeted base of Waulsortian Limestone. Given the general flat lying and stratabound nature of mineralization and steep angles of all drillholes mentioned, the true thickness of the mineralized intervals quoted is interpreted to be approximately 95% of the sampled thickness.

After this initial discovery, Lundin joint ventured Kilbricken and the wider tenure package from Belmore. In 2011, Lundin purchased 100% of Belmore. Drilling by Lundin from 2009 to 2012 continued to intersect sulphide mineralization in the hanging wall of the Chimney fault. Significant intersections from Lundin's drilling programs are shown in Table 1.

Hole ID	Mineralized Intersection
DH46	20.5m @ 7.5% Zn, 9.9% Pb, 0.07% Cu, 74.6g/t Ag from 415.3m
DH06	21.3m @ 11% Zn, 4.8% Pb, 0.06% Cu, 94.4g/t Ag from 441.9m
DH50	11.8m @ 9.8% Zn, 5.7% Pb, 0.07% Cu, 178.2g/t Ag from 484.6m
DH43	9.4m @ 4.1% Zn, 12% Pb, 0.52% Cu, 242.8g/t Ag from 442.1m
DH04	10.0m @ 13.8% Zn, 5.5% Pb, 0.08% Cu, 62.8g/t Ag from 448.1m
DH52	19.3m @ 7.2% Zn, 1.2% Pb, 0.18% Cu, 64.6g/t Ag from 425.7m
DH44	17.2m @ 2.9% Zn, 4.4% Pb, 0.11% Cu, 83.5g/t Ag from 447.9m
DH167	4.5m @ 0.8% Zn, 2.6% Pb, 18.91% Cu, 867.6g/t Ag from 616.5m
DH161	10.4m @ 8.4% Zn, 3.9% Pb, 0.09% Cu, 26.5g/t Ag from 607m

Table 1: Kilbricken Better	<b>Mineralized Drill Intersections.</b>
----------------------------	---

Hole ID	Mineralized Intersection
DH206	10.0m @ 0.9% Zn, 8.7% Pb, 0.16% Cu, 90.7g/t Ag from 619m
DH111	4.1m @ 21.5% Zn, 5.7% Pb, 0.1% Cu, 95.4g/t Ag from 447.6m

# Technical Summary

Two styles of mineralization are evident at Kilbricken. The upper Chimney zone demonstrates the classic highgrade (>10% ZnEq) Irish stratabound mineralization targeted by Hannan. This body has been drilled within an area of 750 metres by 200 metres and averages 12 metres thickness. The lower Fort Zone was found later than the Chimney zone and has been tested with fewer drill holes. It is structurally hosted, lower grade, but thicker, averaging 40 metres, and drilled within a 400 metre by 200 metres area.

Lundin completed significant work on the property. A total of 278 drill holes for 134,000 m of diamond drilling was completed over the entire project. A total of 222 drill holes for 118,000 metres were drilled at the Kilbricken area. Lundin also undertook regional exploration in the remainder of the Clare Project, largely focussed on other Waulsortian-hosted zinc-lead prospects. Lundin carried out 616 metres of drilling at the Ballyvergin prospect with the objective of discovering additional zones of copper-silver mineralization. Lundin drilled a total of 2,370 metres on the Kilmurry Project, located within the Clare project area, 9 kilometres south-east of Kilbricken. In addition, significant surface geochemical and multiple geophysical surveys have been undertaken by Lundin and previous operators on the Clare Project area. Of note are a 3D seismic survey over the main Kilbricken mineralization in 2011, and 2D seismic survey conducted in 2012 that consisted of 8 traverses (each 3 - 3.5km long) over a total 10 kilometre strike length, spaced between 1-2 kilometres across the Kilbricken trend.

Massive sulphide mineralization at Kilbricken most commonly consists of early massive-textured, fine-grained pyrite, galena and sphalerite cross-cut by coarse-grained sphalerite and galena, resembling sulphides found in the overlying veins. It differs from most other Irish zinc/lead prospects in that it is rich in silver, where the silver is generally associated with galena-rich zones.

# Drill Results

Hannan commenced drilling at Kilbricken in May 2017 and has subsequently completed 16 holes for a total of 7,189.3 metres. Hannan's drilling initially focused around Kilbricken with many holes intersecting significant mineralization and extending both the Fort and Chimney Zones. The true thickness of mineralized intervals at Kilbricken is interpreted to be greater than 95% of the sampled thickness.

# Drill highlights include:

DH 17-3679-217 ("DH217") at the Fort Zone, one of the most mineralized ever drilled at the property:

- 8.0 metres @ 4.1% Zn, 33.7% Pb and 174 g/t Ag (37.9% Zn+Pb) from 528 metres, including 3.2 metres @ 8.4% Zn, 72.8% Pb and 388 g/t Ag (81.2% Zn+Pb) from 528 metres;
- 3.4 metres @ 5.2% Zn, 4.3% Pb and 33 g/t Ag (9.5% Zn+Pb) from 570 metres;
- 26.6 metres @ 7.5% Zn, 0.9% Pb and 14 g/t Ag(8.4% Zn+Pb) from 588 metres, including18.8 metres @ 8.8% Zn, 1.1% Pb, 19 g/t Ag(9.9% Zn+Pb) from 588 metres;

DH 17-3679-218 ("DH218"), drilled at Fort Zone intersected massive sulphides within a down-hole thickness of 55 metres:

- 4.0 metres @ 0.7% Zn, 8.9% Pb and 31 g/t Ag (8.6% ZnEQ) from 526 metres, including 1.4 metres @ 1.6% Zn, 15.2% Pb and 53 g/t Ag from 526 metres and 1.0 metres @ 0.4% Zn, 13.8% Pb and 46 g/t Ag from 529 metres;
- 6.0 metres @ 2.5% Zn, 1.8% Pb and 13 g/t Ag (4.4% ZnEQ) from 544 metres, including 2.1 metres @ 5.0% Zn, 3.7% Pb and 25 g/t Ag from 548 metres;
- 6.4 metres @ 4.8% Zn, 1.3% Pb and 15 g/t Ag (6.3% ZnEQ) from 558 metres, including 1.1 metres @ 13.3% Zn, 3.1% Pb, 34 g/t Ag from 558 metres;
- 10.0 metres @ 3.4% Zn, 1.0% Pb and 13 g/t Ag (4.7% ZnEQ) from 571 metres;

DH 17-3679-219 ("DH219"), a 50 metre step out hole from the Fort Zone intersected massive sulphide mineralization within a total down-hole thickness of 92.9 metres:

- 8.4m @ 8.0% ZnEQ (6.2% Zn, 0.9% Pb, 15 g/t Ag and 0.35% Cu) from 599.0m, including 1.4m @ 20.8% ZnEQ (16.8% Zn, 3.5% Pb, 30 g/t Ag, 0.2% Cu) from 604.0m and:
- 12.8m @ 5.1% ZnEQ (3.2% Zn, 1.8% Pb, 13g/t Ag and 0.05% Cu) from 631.5m, including 0.9m @ 17.8% ZnEQ (15.3% Zn, 2.1% Pb, 25 g/t Ag, 0.1% Cu) from 643.4m.

DH 17-3679-220 ("DH220") first drill hole to test along strike from the Chimney Zone, was a 75 metre step out:

3.3m @ 10.4% ZnEQ (3.6% Zn, 6.5% Pb, 58 g/t Ag and 0.1% Cu) from 477.0m, including 1.0m @ 18.6% ZnEQ (3.7% Zn, 14.5% Pb, 121 g/t Ag, 0.2% Cu) from 478.6m

The remaining nine drill holes of the 2017 program (DH 17-3679-221 through to DH 17-3679-229; DH 17-3679-225 was abandoned at 72 metres) were drilled outside Kilbricken, based primarily on soil anomalies. Hole 17-3679-221 intersected anomalous copper mineralization 300 metres along strike from the Fort Zone. Hole 17-3679-226, drilled up dip from Kilbricken, intersected hematite alteration which is considered a good indicator of proximity to mineralization. Drill hole 17-3679-228 contained both pyrite at the base of reef with intense dolomitization and a fault in the stratigraphic footwall, which indicates a drill target at shallower levels up-dip. The remaining five holes did not intersect significant mineralization or alteration.

In October 2018 the Company drilled three drill holes at the Ballyhickey prospect located two kilometres NE of Kilbricken. Drill targets had been developed from seismic and surface geochemistry. The drilling confirmed the geological model and encounter significant faulting similar to the faults controlling the Kilbricken deposits. One of the drill holes intersected weak calcite pyrite alteration at the base of the Waulsortian limestone.

In February 2019 the Company extended a pre-existing drill hole (11-3643-10) at the Kilmurry prospect located 9km south of the Kilbricken prospect. The target was a seismic and detailed gravity defined structural and stratigraphic target mapped by Hannan over greater than 15 kilometres strike and 1-2 kilometres width. Historic drilling identified significant alteration and mineralization immediately south in the footwall of the Kilmurry target. Hannan's extension of hole 11-3643-10 encountered intense hydrothermal hematite for 4 metres at the base of the potential mineralized position and calcite/dolomite breccia over more than 60 metres thickness, with sporadic gossanous patches after pyrite and calcite textures suggesting replacement of barite. The hydrothermal hematite alteration is highly significant as it lies proximal to mineralization at Irish-style deposits such as Lisheen, Tynagh and Silvermines and can be considered a near-miss indicator. Further drilling is required.

# Soil Sampling

A 1,000 sample soil program focused on acquiring new samples within an area of  $>40 \text{km}^2$  of unexplored Waulsortian Limestone continues. Soil samples have been acquired by hand auger at 50cm depth on average (up to >1m). The sample material is brown earth, sometimes with a clay/sand/peat or chip components from the A horizon. Thin glacial cover (1-5m thick) is common over the project area. In combination with the re-interpretation and quality control of >18,000 historic soil samples, the new data already released reveals multiple new anomalies of Zn-Pb (with associated trace elements), some at target depths <300m. The anomalies show strong correlation with many prospective faults previously interpreted from aeromagnetic, gravity and seismic data.

New soil sampling results have identified a large and coherent anomaly up-dip from Kilbricken. Furthermore, 2km NE of Kilbricken at the Ballyhickey prospect the survey revealed a 3km long and 600m wide soil anomaly that has never been drill tested. The anomaly identified is similar to the soil anomaly found above known mineralization at the Chimney zone, and shows a strong correlation with prospective faults identified from gravity, magnetic and seismic data sets. This new anomaly was drill tested in October 2018. One of three drill holes intersected weak alteration at the base of the Waulsortian limestone.

# Regional Soil Sampling

During January 2018 the Company announced the results of an extensive 961 sample regional soil geochemical survey covering >200km<sup>2</sup> around the deposit. The Kilbricken deposit forms a strong geochemical signature at surface and the geochemical surveys were undertaken to search for new anomalies in a similar geological setting to that of Kilbricken.

Highlights are:

- Multi-element soil samples coverage, from immediately above and regionally around the 100% Kilbricken zinc deposit now extends over >200km<sup>2</sup>.
- All seven main anomalies defined are drill targets. As geochemical anomalies are not necessarily located directly above possible mineralization due to dispersion upwards through structural breaks, the geochemical data will be used in conjunction with gravity data and the recently completed 2D seismic data to better locate drill holes to test these anomalies.
- Further soil sampling on the Clare Project is continuing and focussed around Kilbricken, to infill and extend anomalies that have not been closed off.
- Several strong multipoint anomalies coinciding with structural targets identified from Hannan's seismic survey. This includes three targets which have been identified in the Kilbricken area, Ballyhickey, Quin and Finanag.
- Outside of the main Kilbricken area 5 targets have been prioritized. Each area consist of 2 or more samples with anomalies from by Zn, Cd,+/- As, Pb. Fe and Mn is generally low.

# Seismic Survey

During January 2018 the Company announced completion of a 40.6 line kilometre 2D seismic survey at the Clare Project. The regional seismic survey is a first for the area and has delivered a critical new set of subsurface data across the Company's 35,444 hectare PLs, which will form the basis for current and future drill targeting and prioritization.

The survey traversed the most prospective parts of the Clare Basin within the Company's PLs and was used to identify and map geological structures that may host and control base metal mineralization. The Company's seismic survey propels understanding of the architecture and geological prospectivity of the Clare Basin, in a manner not previously possible. Highlights from the survey are:

- The 40.6 line kilometre 2D seismic survey identified the high-grade zinc mineralized position at Kilbricken and defined multiple new high priority targets in similar settings over a combined 12 kilometres trend immediately along strike and up dip from the Kilbricken deposit.
- Over the regional scale, multiple drill targets were also identified across much of the Clare project, including major north dipping faults that are well documented to preferentially host economic zinc deposits in Ireland.
- The 6,000 metre drill program currently being planned will initially test targets over the combined 12 kilometres trend immediately along strike and up dip from Kilbricken.
- In total the Clare project now has 68 kilometres of 2D seismic and 5 square kilometres of 3D seismic surveys which constrain depths and geometry of potentially mineralized targets, which will substantially decrease exploration costs and increase exploration effectiveness.
- Seismic surveying is not a technique commonly used in hard rock mining while is endemic in the oil and gas industry. Hannan is one of few hard rock exploration companies to use the method globally.

# Metallurgy

On March 30, 2017 the Company announced the results of a gap analysis on mineralogical investigations on the Kilbricken project, Ireland by Dr. Kurt Forrester of Arn Perspective Ltd. Based on this study and the available information, it is likely a conventional lead-zinc flotation circuit at Kilbricken would be able to achieve saleable mineral concentrates. It is anticipated that there should be no penalties due to the presence of deleterious elements (arsenic, manganese, cadmium, selenium), subject to confirmation from the assessment of bulk element deportment during lead-zinc flotation. A primary grind of between  $100\mu$ m to  $150\mu$ m is anticipated to achieve satisfactory liberation and there are no red flags with the modal mineralogical analysis with respect to mineral processing and beneficiation. Based on the information available, it is anticipated that Kilbricken should be able to achieve high recoveries of both zinc and lead concentrates. Results from limited grade recovery analysis indicated the following recoveries probable using a conventional flowsheet:

- Targeting a sphalerite grade of 85% in the zinc concentrate would result in recoveries in excess of 85%.
- Targeting a galena grade of 70% in the lead concentrate would result in recoveries in excess of 75%.

Recommendations include conducting metallurgical test work across the deposit as part of an ongoing exploration and development program. The first drill hole (DH-217) will be used to collect metallurgical samples for locked cycle flotation testwork.

### Gravity Survey

In October 2018 the Company completed a gravity survey over the Kilmurry prospect, 12km South of Kilbricken. The survey was designed to map the area between two seismic profiles where significant faults were mapped (the Kilmurry fault zone) during the seismic survey. The gravity survey confirmed the existence of the faults and also highlighted the possibility of a fault relay zone between the two seismic profiles.

#### Future Developments

The current focus in Ireland is the Kilmurry prospect which has the indicators of a significant drill target. The Kilmurry fault zone, mapped by seismic surveys, gravity and supported by historic drilling, has been traced over 10 kilometres of strike. Further drilling is recommended at Kilmurry, with four priority targets defined within the ramp-relay system over 6 kilometres.

### **Qualified Person**

The qualified person for the Company's projects, Mr. Michael Hudson, the Company's Chairman and CEO, a Fellow of the Australasian Institute of Mining and Metallurgy, has reviewed and verified the contents of this document.

# Selected Financial Data

The following selected financial information is derived from the audited annual consolidated financial statements of the Company.

	Ye	Years Ended May 31,			
	2019 \$	2018 \$	2017 \$		
Operations:					
Revenues	Nil	Nil	Nil		
Expenses	(1,005,429)	(1,126,723)	(671,296)		
Other items	(15,015)	12,821	(8,646)		
Net income (loss)	(1,020,444)	(1,113,902)	(679,942)		
Basic and diluted income (loss) per share	(0.02)	(0.03)	(0.04)		
Statement of Financial Position:					
Working capital (deficiency)	126,587	140,507	(146,446)		
Total assets	4,629,002	4,064,335	2,846,191		
Total long-term liabilities	(342,393)	(322,093)	(301,893)		

The following selected quarterly financial information is derived from the unaudited condensed consolidated interim financial statements of the Company and prepared using IFRS.

	Fiscal 2019			Fiscal 2018				
Three Months Ended	May 31/19 \$	Feb 28/19 \$	Nov 30/18 \$	Aug 31/18 \$	May 31/18 \$	Feb 28/18 \$	Nov 30/17 \$	Aug 31/17 \$
Operations:								
Revenues	Nil							
Expenses	(228,949)	(251,473)	(286,145)	(238,862)	(218,684)	(230,675)	(280,938)	(396,426)
Other Items	(4,054)	(3,290)	(4,077)	(3,594)	(14,673)	(2,619)	11,851	18,262
Net loss	(233,003)	(254,763)	(290,222)	(242,456)	(233,357)	(233,294)	(269,087)	(378,164)
Basic and diluted								
loss per share	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)

	Fiscal 2019			Fiscal 2018				
Three Months Ended	May 31/19 \$	Feb 28/19 \$	Nov 30/18 \$	Aug 31/18 \$	May 31/18 \$	Feb 28/18 \$	Nov 30/17 \$	Aug 31/17 \$
Statement of Financial Position:								
Working capital (deficiency)	126,587	(16,629)	397,472	856,200	140,507	678,140	1,676,200	2,585,416
Total assets	4,629,002	4,370,544	4,573,836	4,805,411	4,064,335	4,907,603	5,166,519	5,793,310
Total long-term liabilities	342,393	337,276	332,270	327,209	322,093	317,076	312,070	307,010

### **Results of Operations**

#### Three Months Ended May 31, 2019 Compared to Three Months Ended February 28, 2019

During the three months ended May 31, 2019 ("Q4") the Company reported a net loss of \$233,003 compared to a net loss of \$254,763 for the three months ended February 28, 2019 ("Q3"), a decrease in loss of \$21,760, which was mainly attributed to the recognition of share-based compensation of \$22,290 during Q3 on the granting of share options. No share options were granted during Q4.

### Three Months Ended May 31, 2019 Compared to Three Months Ended May 31, 2018

During the three months ended May 31, 2019 ("Q4/2019") the Company reported a net loss of \$233,003 compared to a net loss of \$233,357 for the three months ended May 31, 2018 ("Q4/2018"). There were no significant variances in expenses during the Q4/2019 and Q4/2018.

### Year Ended May 31, 2019 Compared to Year Ended May 31, 2018

During the year ended May 31, 2019 ("fiscal 2019") the Company reported a net loss of \$1,020,444 compared to a net loss of \$1,113,902 for the year ended May 31, 2018 ("fiscal 2018"), a decrease in loss of \$93,458. Specific expenses of note during fiscal 2019 are as follows:

- (i) incurred \$90,381 in fiscal 2019 for corporate development costs, a decrease of \$22,690 from \$113,071 during fiscal 2018, reflecting a decrease in levels of corporate development activities and service providers;
- salaries and wages expense increased by \$45,660, from \$12,150 in fiscal 2018 to \$57,810 in fiscal 2019 reflecting a decrease in the allocation of salaries and wages for the Company's geologists to exploration and evaluation assets during fiscal 2019;
- (iii) recorded share-based compensation of \$78,100 (2018 \$111,785) on the granting of share options to purchase 1,037,000 (2018 475,000) common shares;
- (iv) expensed \$227,726 (2018 \$225,346) for management and director compensation for services provided by current and former officers and directors of the Company. See also "Transactions with Related Parties";
- (v) during fiscal 2018 the Company recorded \$24,248 accretion of the property acquisition obligation to Lundin, which matured and was paid in March 2018;
- (vi) professional fees decreased by \$14,818, from \$140,477 in fiscal 2018 to \$125,659 in fiscal 2019;
- (vii) incurred \$15,123 (2018 \$36,663) for shareholder costs, a \$21,540 decrease which is primarily attributed to a significant reduction in dissemination of news releases in fiscal 2019. In addition, during fiscal 2018 the Company engaged translation service providers for news releases;
- (viii) during fiscal 2019 the Company incurred \$14,552 for general exploration compared to \$42,265 in fiscal 2018, a decrease of \$27,713;
- (ix) office, rent and miscellaneous expenses remained relatively equal, \$61,387 incurred during fiscal 2019 compared to \$60,399 during fiscal 2018;
- (x) incurred \$27,096 in fiscal 2018, compared to \$36,229 in fiscal 2019, for drill core storage facilities; and
- (xi) incurred a total of \$93,472 (2018 \$95,099) for accounting and administration services. During fiscal 2019 \$44,050 (2018 \$37,900) was incurred with Chase Management Ltd. ("Chase") a private corporation owned by Mr. Nick DeMare, a director of the Company, for services provided by Chase personnel, excluding Mr. DeMare. In addition, during fiscal 2019 the Company was also billed \$49,422 (2018 \$57,199) for accounting services provided by a third party accounting firm for ongoing accounting for Hannan Ireland.

The Company has \$290,000 principal of promissory notes issued, which bear interest at 7% per annum. During fiscal 2019 and 2018 the Company recorded \$20,300 interest expense. See also "Transactions with Related Parties".

The Company holds its cash in interest bearing accounts in major financial institutions. Interest income is generated from the deposits and fluctuates primarily with the levels of cash on deposit. During fiscal 2019 the Company reported interest income of \$11,369 compared to \$21,922 during fiscal 2018, reflecting lower levels of cash held during fiscal 2019.

#### **Exploration and Evaluation Assets**

Exploration and Evaluation (1990)	Ireland	Peru	
	Clare Project \$	San Martin Project \$	Total \$
Balance at May 31, 2017	1,574,036		1,574,036
Exploration costs			
Airborne geophysics	6,773	-	6,773
Drilling	838,325	-	838,325
Environmental	30,099	-	30,099
Field supplies	3,235	-	3,235
Geochemistry	143,072	-	143,072
Geology	56,614	-	56,614
Ground geophysics	797,940	-	797,940
Metallurgical testing	20,623	-	20,623
Other	67,442		67,442
	1,964,123		1,964,123
Balance at May 31, 2018	3,538,159		3,538,159
Exploration costs			
Drilling	187,087	_	187,087
Environmental	7,831	-	7,831
Geochemistry	35,896	-	35,896
Geology	39,261	55,359	94,620
Ground geophysics	28,295	-	28,295
Metallurgical testing	35,780	-	35,780
Other	34,055	15,273	49,328
Personnel	-	2,406	2,406
Sampling		7,481	7,481
	368,205	80,519	448,724
Acquisition costs			
License applications		220,959	220,959
Balance at May 31, 2019	3,906,364	301,478	4,207,842

During fiscal 2019 the Company completed reprocessing of data and analyzing its regional soil sampling conducted in early 2018 and focused on developing a drill program directed at the Ballyhickey drill target. During fiscal 2019 the Company conducted initial field work which was recorded as general exploration expense. As of the date of this MD&A the Company has submitted 50 mineral claim applications for the San Martin Project located in north-central Peru. See also "Property Update".

# **Financings Activities**

During fiscal 2019 the Company completed non-brokered private placements totalling 12,370,900 units for gross proceeds of \$1,605,635. The Company used the net proceeds to finance exploration expenditures at the Clare Project and field work and license applications at the San Martin Project, as well as for general working capital and corporate purposes.

During fiscal 2018 the Company completed a non-brokered private placement financing of 12,804,713 units for proceeds of \$3,329,225.

### **Financial Condition / Capital Resources**

As at May 31, 2019 the Company had a working capital in the amount of \$126,587 and an accumulated deficit of \$7,586,487. To date the Company has not earned any production revenue and is considered to be in the exploration stage. The Company's operations are funded from equity financings which are dependent upon many external factors and may be difficult to impossible to secure or raise when required. The Company will require additional financing to maintain its core operations, conduct planned exploration programs on its existing exploration and evaluation assets and discharge its obligations as they become due in the next twelve months. While the Company has been successful in securing financings in the past there can be no assurance that it will be able to do so in the future. If the Company is unable to obtain adequate additional financing the Company will be required to curtail operations and exploration and development activities. These factors cast significant doubt about the Company's ability to continue as a going concern and realize its assets and settle its liabilities and commitments in the normal course of business.

### **Off-Balance Sheet Arrangements**

The Company has no off-balance sheet arrangements.

### **Proposed Transactions**

The Company has no proposed transactions.

# **Critical Accounting Estimates**

The preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenditures during the reporting period. Examples of significant estimates made by management include estimating the fair values of financial instruments, valuation allowances for deferred income tax assets and assumptions used for share-based compensation. Actual results may differ from those estimates.

A detailed summary of the Company's critical accounting estimates and sources of estimation is included in Note 3 to the May 31, 2019 and 2018 audited annual consolidated financial statements.

# **Changes in Accounting Policies**

# (i) IFRS 9 - Financial instruments ("IFRS 9")

The Company adopted all of the requirements of IFRS 9 as of June 1, 2018. IFRS 9 replaces IAS 39, *Financial Instruments: Recognition and Measurement* ("IAS 39"). IFRS 9 utilizes a revised model for recognition and measurement of financial instruments and a single, forward looking "expected loss" impairment model. Most of the requirements in IAS 39 for classification and measurement of financial liabilities were carried forward in IFRS 9, so the Company's accounting policy with respect to financial liabilities is unchanged. As a result of the adoption of IFRS 9 management has changed its accounting policy for financial assets retrospectively for assets that continued to be recognized at the date of initial application.

	Original Under IAS	39	New Under IFRS 9		
	Classification	Carrying Amount \$	Classification	Carrying Amount \$	
Cash Accounts payable and	Fair value through profit or loss	477,866	Fair value through profit or loss	477,866	
accrued liabilities Promissory notes	Other financial liabilities	385,669	Amortized cost	385,669	
payable	Other financial liabilities	322,093	Amortized cost	322,093	

As the standard permits on transition to IFRS 9, the Company has not restated prior periods with respect to the new amortized cost measurement for financial assets and impairment requirements.

The adoption of IFRS 9 resulted in no impact to the opening accumulated deficit or to the opening deficit on June 1, 2018.

(ii) IFRS 15 - Revenue from Contracts with Customers ("IFRS 15")

The Company adopted all of the requirements of IFRS 15 as of June 1, 2018. This new accounting pronouncement establishes principles for reporting the nature, amount, timing and uncertainty of revenue and cash flows arising from an entity's contracts with customers.

There was no impact on the Company's consolidated financial statements upon the adoption of IFRS 15.

A detailed summary of all the Company's other significant accounting policies and accounting standards and interpretations issued but not yet effective, is included in Note 3 to the May 31, 2019 and 2018 audited annual consolidated financial statements.

#### **Transactions with Related Parties**

#### (a) Transactions with Key Management Personnel

The Company has determined that key management personnel consists of the executive members of the Company. During fiscal 2019 and 2018 the following amounts were incurred with respect to the Company's CEO (Mr. Hudson), former President (Mr. DeMare), current President and former VP Exploration (Mr. Dahlenborg) and the CFO (Mr. Lim):

	2019 \$	2018 \$
Professional fees - Mr. Hudson	96,000	96,000
Professional fees - Mr. DeMare <sup>(1)</sup>	9,000	11,550
Professional fees - Mr. Dahlenborg <sup>(1)</sup>	130,920	138,711
Professional fees - Mr. Lim	9,000	8,250
	244,920	254,511

(1) On January 25, 2019 Mr. DeMare resigned as the President but remained as a director of the Company and Mr. Dahlenburg was appointed as the President and resigned as VP Exploration.

During fiscal 2019 the Company allocated the \$244,920 (2018 - \$254,511) management fees based on the nature of the services provided: expensed \$160,536 (2018 - \$180,196) to management and director compensation; and capitalized \$84,384 (2018 - \$74,315) to exploration and evaluation assets. As at May 31, 2019, \$131,628 (2018 - \$132,845) remained unpaid.

- (b) Transactions with Other Related Parties
  - (i) During fiscal 2019 and 2018 the following amounts were incurred with respect to nonmanagement current and former directors (David Henstridge, Michael Iannacone, Georgina Carnegie and Ciara Talbot) and the Corporate Secretary (Mariana Bermudez) of the Company:

	2019 \$	2018 \$
Professional fees - Mr. Henstridge	9,000	10,050
Professional fees - Mr. Iannacone <sup>(3)</sup>	-	3,750
Professional fees - Ms.Carnegie <sup>(4)</sup>	25,250	8,550
Professional fees - Ms. Talbot <sup>(5)</sup>	9,000	6,000
Professional fees - Ms.Bermudez	23,940	16,800
	67,190	45,150

(3) Resigned October 4, 2017(4) Appointed March 28, 2017

(5) Appointed October 4, 2017

As at May 31, 2019, \$78,350 (2018 - \$73,600) remained unpaid.

- (ii) During fiscal 2019 period the Company incurred a total of \$44,050 (2018 \$37,900) to Chase, a private corporation owned by Mr. DeMare, for accounting and administration services provided by Chase personnel, excluding Mr. DeMare. As at May 31, 2019 \$881 (2018 \$5,700) remained unpaid.
- (c) The Company has issued \$290,000 in promissory notes which bear interest at 7% per annum. The principal amounts and accrued interest are currently scheduled to be due and payable on December 31, 2020. During fiscal 2019 the Company recorded \$20,300 (2018 \$20,300) of interest expense. The promissory notes are held by shareholders of the Company including a family trust of the CEO of the Company.
- (d) During fiscal 2019 directors, officers and a close family member purchased 1,333,333 units (2018 886,000 units) of the private placement for \$200,000 (2018 \$230,360).

### **Risks and Uncertainties**

An investment in the Company's common shares is highly speculative and subject to a number of risks and uncertainties. Only those persons who can bear the risk of the entire loss of their investment should consider investing in the Company's common shares.

The Company competes with other mining companies, some of which have greater financial resources and technical facilities, for the acquisition of mineral concessions, claims and other interests, as well as for the recruitment and retention of qualified employees.

### **Outstanding Share Data**

The Company's authorized share capital is unlimited common shares with no par value. As at September 27, 2019, there were 52,664,602 issued and outstanding common shares, 10,628,400 warrants outstanding at exercise prices ranging from \$0.10 to \$0.25 per share and 2,416,000 share options outstanding at exercise prices ranging from \$0.10 to \$0.45 per share.