



7 September 2016

## **Maiden drilling program intersects significant sulphide mineralisation at Kildare**

- Initial logs<sup>#</sup> confirm shallow oxidised sulphides from **16 – 36m** in **ZB16-003** and zinc sulphides from **417 – 437m** in **ZB16-002**
- Drilling continues
- Samples to be submitted in September and assays anticipated in October

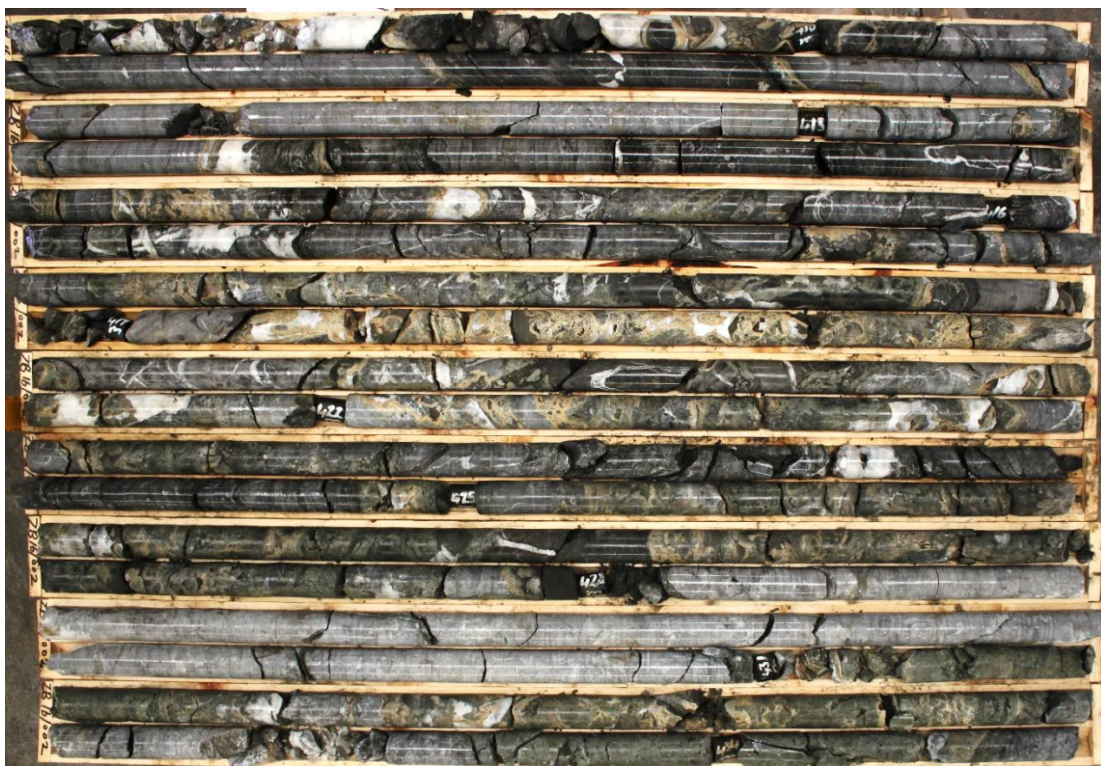
The Directors of Zinc of Ireland NL (“**ZMI**” or “**the Company**”) are pleased to provide the following update on exploration activities at the Company's 100%-owned Kildare Project in Ireland.

To date, the Company has completed approximately 780m of its maiden drilling program at the Kildare Project. A total of three holes have now been completed and the Company expects drilling to be completed in September with assay results anticipated in October.

All holes drilled to date have contained visual estimations of zinc mineralisation.

Based on visual logs, hole ZB16-003 intersected a zone of approximately **20m of oxidised sulphides from 16m** and ZB16-002 intersected a zone of approximately **20m of brecciated zinc-bearing sulphides from 417m** (see Figure 1). The mineralisation is indicative of Mississippi Valley Type (“**MVT**”) which is the target-style of the Kildare Project (see GXN Announcement dated 17 March 2016).

*# - Initial logs are summary logs only that are completed during drilling. Final logs are currently being completed*



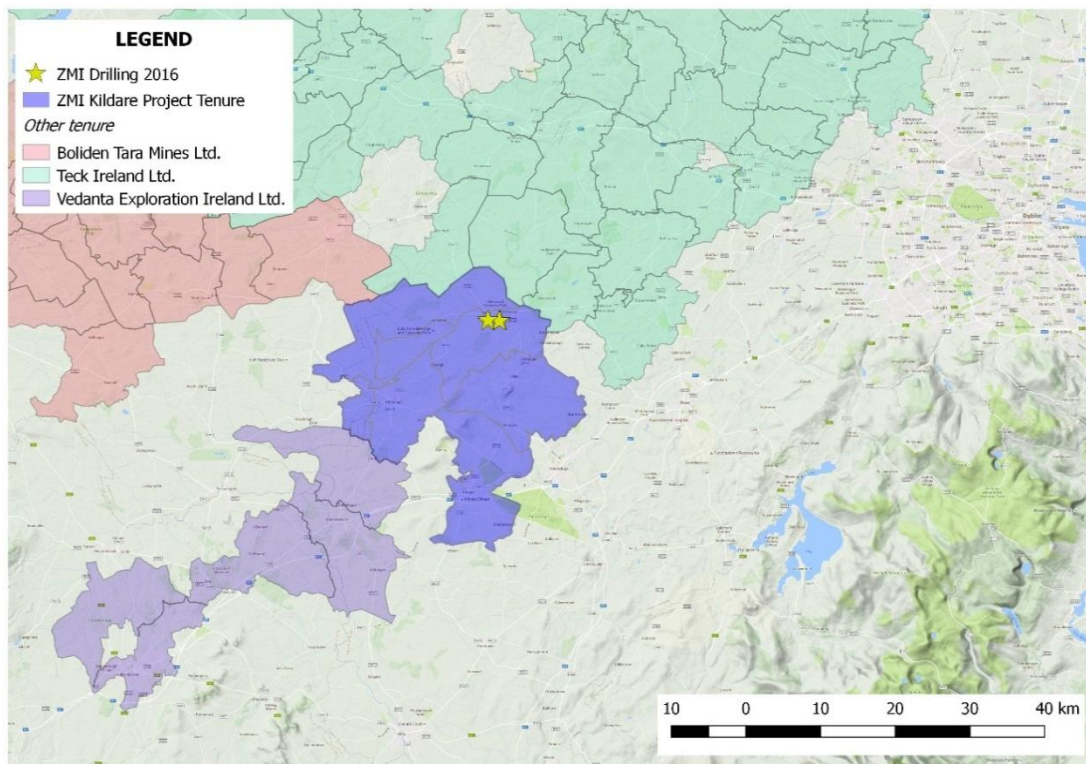
**Figure 1 – Diamond core from ZB16-002 (409 - 434m) exhibiting MVT style mineralisation**

The reported intersection in ZB16-003 appears to be in agreeance with the historical data associated with this area of the Kildare Project.

The reported intersection in ZB16-002 is an extension to historic mineralisation that had not previously been tested. Previous drilling in this area had a maximum depth of approximately 120m.

Hole ZB16-002 was initially planned to target shallow mineralisation to 200m and associated extensions thereafter to 500m (see ZMI Announcement dated 16<sup>th</sup> August 2016). Given that the area of the reported intersection in ZB16-002 had not been previously tested it represents an exciting new target for the Company.

The Company will separately announce its plans with regards to follow-up work in this area and will continue to provide updates to shareholders in respect of the current exploration and drilling program underway at the Kildare Project (**Figure 2**).



**Figure 2 - Kildare Project tenure map**

Yours faithfully,

**Patrick Corr**

Non-Executive Chairman  
Zinc of Ireland NL

#### **Competent Person Statement**

The information in this document that relates to exploration results is based on information compiled by Mr Benjamin Sharp BSc MAIG, a Competent Person who is a Member of the Australian Institute of Geoscientists (Membership No.4289). Mr Sharp is a director and shareholder of Zinc of Ireland NL. Mr Sharp has sufficient experience, which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which has been undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Sharp consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Disclaimer**

Certain statements contained in this announcement, including information as to the future financial or operating performance of ZMI and its projects are forward-looking statements that:

- may include, among other things, statements regarding targets, estimates and assumptions in respect of mineral reserves and mineral resources and anticipated grades and recovery rates, production and prices, recovery costs and results, capital expenditures, and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions;
- are necessarily based upon a number of estimates and assumptions that, while considered reasonable by ZMI, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies; and,
- involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements.

## ADDITIONAL INFORMATION

### JORC CODE, 2012 EDITION – TABLE 1

The following sections are provided for compliance with requirements for the reporting of exploration results under the JORC Code, 2012 Edition.

#### Section 1 Sampling Techniques and Data

(Criteria listed in the preceding section also apply to this section.)

| Criteria              | JORC Code explanation   | Commentary  |
|-----------------------|---|---|
| Sampling techniques   | <ul style="list-style-type: none"> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul> | <ul style="list-style-type: none"> <li>Intercepts refer to visual estimates and no assays have been completed. This is mentioned in the main body of the announcement.</li> </ul> |
| Drilling techniques   | <ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>   | <ul style="list-style-type: none"> <li>Diamond drilling, PQ, HQ and NQ sized.</li> </ul>  |
| Drill sample recovery | <ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse</li> </ul>  | <ul style="list-style-type: none"> <li>The results contained herein refer to initial logs and as such recoveries and RQD are not yet estimated.</li> </ul>                        |



| Criteria                                       | JORC Code explanation  | Commentary  |
|--|--|---|
|  | <i>material.</i>   |   |
| Logging  | <ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>   | <ul style="list-style-type: none"> <li>Drillholes have been initially logged and are awaiting final log by the in-country geologists.</li> <li>Photography of mineralised zones is partially complete.</li> </ul> |
| Sub-sampling techniques and sample preparation | <ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul> | <ul style="list-style-type: none"> <li>Core is yet to be sampled.</li> </ul>  |
| Quality of assay data and laboratory tests     | <ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>   | <ul style="list-style-type: none"> <li>Core is yet to be sampled.</li> </ul>  |
| Verification of sampling and assaying          | <ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>  | <ul style="list-style-type: none"> <li>Core is yet to be sampled.</li> </ul>  |
| Location of data points                        | <ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>  | <ul style="list-style-type: none"> <li>Initial surveys are by hand-held GPS in Irish Grid 65.</li> <li>Collars are yet to be surveyed and downhole surveys are yet to be reported.</li> </ul>                     |
| Data spacing and distribution                  | <ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity</li> </ul>   | <ul style="list-style-type: none"> <li>Sample compositing and data distribution is yet to occur.</li> </ul>   |

| Criteria  | JORC Code explanation  | Commentary   |
|---|--|--|
|   | <p><i>appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <ul style="list-style-type: none"> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>  |  |
| Orientation of data in relation to geological structure | <ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul> | <ul style="list-style-type: none"> <li>• Core is yet to be sampled.</li> </ul>   |
| Sample security   | <ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>   | <ul style="list-style-type: none"> <li>• Samples are under the custody of company representatives in-country.</li> </ul> |
| Audits or reviews                                       | <ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>   | <ul style="list-style-type: none"> <li>• No audits or reviews have taken place.</li> </ul>                               |

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

| Criteria                                | JORC Code explanation   | Commentary   |
|---|---|--|
| Mineral tenement and land tenure status | <ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>  | <ul style="list-style-type: none"> <li>The Kildare Project is comprised of 6 tenements namely PL3846, PL3866, PL4069, PL4070, PL4072 and PL4073.</li> <li>All tenements are 100% owned by Raptor Resources, a subsidiary of Zinc of Ireland NL.</li> <li>No historical, wilderness or national parks are known to infringe significantly on the tenure.</li> <li>A comprehensive list of all tenure owned by Zinc of Ireland NL is included in Annexure B.</li> </ul>  |
| Exploration done by other parties       | <ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>   | <ul style="list-style-type: none"> <li>Historical exploration is outlined in GXN Announcement dated 17<sup>th</sup> March 2016 and associated annexes.</li> </ul>  |
| Geology                                 | <ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>   | <ul style="list-style-type: none"> <li>The Kildare Project is situated approximately 2km NW of the Lower Paleozoic Kildare Inlier on a northeast-southwest trending reverse fault. Local geology consists of sediments conformably overlying Carboniferous Waulsortian Mudbank. This mudbank overlies a thick succession of carbonates and limestones atop basement volcanics.</li> <li>The area is considered prospective for breccia-hosted Fe-Zn-Pb deposits (a Mississippi Valley-type mineralisation style).</li> </ul> |
| Drill hole Information                  | <ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul> | <ul style="list-style-type: none"> <li>ZB16-001: 276,990mE, 224,788mN, 95.01 mAOD, -90° dip, 0° azimuth, total depth 183m, no intercept depth reported.</li> <li>ZB16-002: 276,899mE, 224,749mN, 96.97mAOD, -90° dip, 0° azimuth, total depth 491m, intercept depth reported 417 – 437m.</li> <li>ZB16-003: 276,989mE, 224,749mN, 95.01mAOD, -90° dip, 0° azimuth, total depth 106m, intercept depth reported 16-36m.</li> </ul>   |
| Data aggregation methods                | <ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown</li> </ul>   | <ul style="list-style-type: none"> <li>Core is yet to be sampled.</li> <li>Reported intervals are areas of visual mineralisation only.</li> </ul>  |

| Criteria   | JORC Code explanation   | Commentary  |
|--|---|---|
|  | <p>in detail.</p> <ul style="list-style-type: none"> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>   |   |
| Relationship between mineralisation widths and intercept lengths | <ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul> | <ul style="list-style-type: none"> <li>Relationship between true mineralisation width and reported intercepts are unknown.</li> </ul>                     |
| Diagrams   | <ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>  | <ul style="list-style-type: none"> <li>This information does not refer to a significant discovery but an extension to historic mineralisation.</li> </ul> |
| Balanced reporting   | <ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>   | <ul style="list-style-type: none"> <li>Core is yet to be sampled.</li> <li>Reported intervals are areas of visual mineralisation only.</li> </ul>         |
| Other substantive exploration data                               | <ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>         | <ul style="list-style-type: none"> <li>N/A</li> </ul>   |
| Further work   | <ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>   | <ul style="list-style-type: none"> <li>Drilling is continuing and assays are expected in October.</li> </ul>  |



## TENEMENT DETAILS

| PL Number | Owner                               | Status | County   |
|-----------|-------------------------------------|--------|----------|
| 3846      | Raptor Resources Ltd. (100%)        | Held   | Kildare  |
| 3866      | Raptor Resources Ltd. (100%)        | Held   | Kildare  |
| 4069      | Raptor Resources Ltd. (100%)        | Held   | Kildare  |
| 4070      | Raptor Resources Ltd. (100%)        | Held   | Kildare  |
| 4072      | Raptor Resources Ltd. (100%)        | Held   | Kildare  |
| 4073      | Raptor Resources Ltd. (100%)        | Held   | Kildare  |
| 2440      | Beal Na Blath Resources Ltd. (100%) | Held   | Cork     |
| 3202      | Beal Na Blath Resources Ltd. (100%) | Held   | Cork     |
| 2724      | Beal Na Blath Resources Ltd. (100%) | Held   | Galway   |
| 3251      | Beal Na Blath Resources Ltd. (100%) | Held   | Galway   |
| 3459      | Beal Na Blath Resources Ltd. (100%) | Held   | Galway   |
| 3880      | Beal Na Blath Resources Ltd. (100%) | Held   | Galway   |
| 1450      | Beal Na Blath Resources Ltd. (100%) | Held   | Meath    |
| 2836      | Beal Na Blath Resources Ltd. (100%) | Held   | Meath    |
| 2193      | Beal Na Blath Resources Ltd. (100%) | Held   | Monaghan |
| 3027      | Beal Na Blath Resources Ltd. (100%) | Held   | Monaghan |
| 3871      | Beal Na Blath Resources             | Held   | Monaghan |

|      |                                     |      |           |
|------|-------------------------------------|------|-----------|
|      | Ltd. (100%)                         |      |           |
| 2105 | Beal Na Blath Resources Ltd. (100%) | Held | Roscommon |
| 3163 | Beal Na Blath Resources Ltd. (100%) | Held | Roscommon |
| 1690 | Beal Na Blath Resources Ltd. (100%) | Held | Sligo     |
| 3969 | Beal Na Blath Resources Ltd. (100%) | Held | Sligo     |

**Note:** Raptor Resources Ltd and Beal Na Blath Resources Ltd are wholly owned subsidiaries of ZMI