ASX Announcement



18 July 2017

New High-Grade Zinc Discovery at Celtic Tiger, Kildare

Strong mineralisation and faulting opens up new area ~1 km west of McGregor

Key Points:

Assays confirm high-grade zinc mineralisation at the Celtic Tiger prospect in diamond drill-hole Z 4069 004 including:

o 2.85m @ 20.2% Zn+0.88% Pb from 193.90m

Additional zones of mineralisation in Z_4069_004 include:

- 2.20m @ 5.8% Zn+0.3% Pb from 84.75m;
- 2.50m @ 4.3% Zn+0.1% Pb from 103.1m;
- 2.15m @ 7.3% Zn+0.3% Pb from 234.05m;
- The results confirm the presence of a mineralised fault, a key ingredient in Irish zinc deposits.
- Highlights the western margin of the Allenwood Graben as a 4km-long exploration target, with the prospect located ~1km west of McGregor (maiden JORC resource: 5.2Mt at 8.6% Zn+Pb).
- Potential exists for shallow mineralisation in an area that is previously untested.
- Next phase of Kildare drilling is being planned to include several follow-up holes.

European base metals explorer Zinc of Ireland NL (ASX: ZMI – "ZMI" or "the Company") is pleased to advise that it has discovered significant new high-grade zinc mineralisation across multiple zones at the *Celtic Tiger* prospect, part of its 100%-owned Kildare MVT Zinc Project in Ireland (Figure 1). Assay results from recently completed diamond drill hole Z_4069_004 have confirmed the presence of zinc mineralisation across four zones, including a best result of **2.85m @ 20.2% Zn + 0.88% Pb from 193.9m**, opening up an exciting new area for follow-up exploration well outside the project's existing resource inventory.



Diamond drill hole Z_4069_004 was designed to test the western margin of ZMI's recently interpreted Allenwood Graben, a prospective structural setting overlooked by past explorers.

The Celtic Tiger prospect constitutes a previously untested area approximately 1km to the west of the McGregor prospect, which hosts the majority of ZMI's recently published maiden JORC Resource of 5.2Mt @ 8.6% Zn+Pb.

Details of drill hole Z 4069 004 are presented in Table 1.

TABLE 1. Z_4069_004: 274,920mE/224,868mN (Irish Grid); Azimuth 360°, Dip -90°, total depth 277.4m							
Down-Hole (m)	Down-Hole (m)	Down-Hole	Zn%	Pb%	Zn+Pb%		
From	То	Thickness (m)					
84.75	86.95	2.20	5.79	0.33	6.12		
103.10	105.60	2.5	4.29	0.13	4.42		
193.90	196.75	2.85	20.24	0.88	21.12		
234.05	236.20	2.15	7.28	0.29	7.57		

The Celtic Tiger prospect was targeted following ZMI's reinterpretation of the structural framework of the Kildare district and the recognition of the Allenwood Graben. The model implies that there is a fault network running along the western margin of the Allenwood Beds and the Waulsortian Reef in this area (Figure 2), making it a highly favourable setting for structurally controlled zinc mineralisation.

This has been confirmed by Z 4069 004, which intersected a series of fault rocks and breccias in the Sub-Reef stratigraphy, some of which are mineralised and contain high grades.

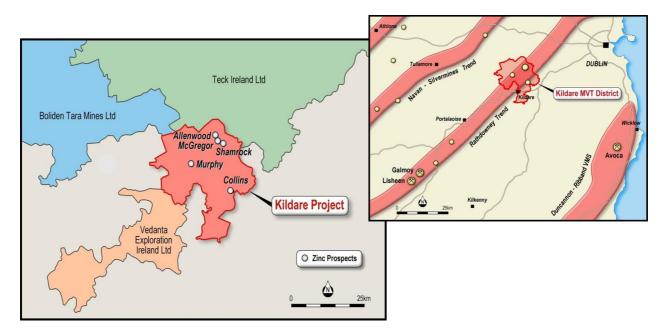


Figure 1: Regional setting of the Kildare Project.

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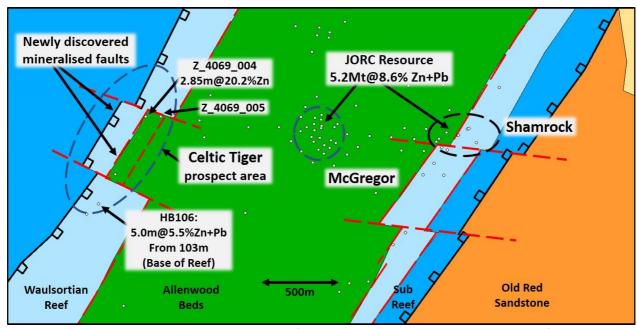


Figure 2: Geological plan showing the location of Z_4069_004 and the structural setting of the Celtic Tiger prospect on the western margin of the Allenwood Graben (N.B. Drill holes shown are deeper than 200m).

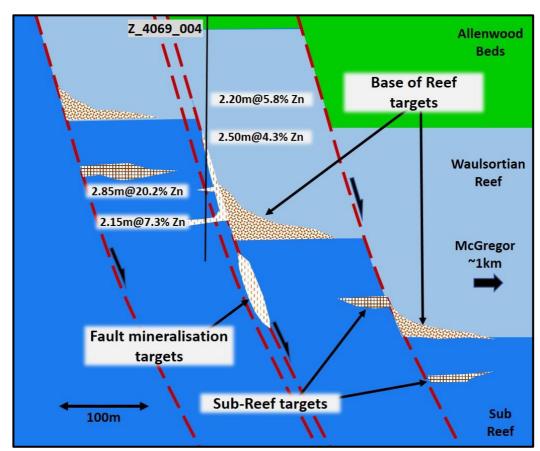


Figure 3: Schematic cross-section through the Celtic Tiger prospect highlighting a range of target types that ZMI believes could have developed in this structural setting.



The Base of Reef, which is the principal target at Kildare, was faulted off in this hole, the implication of which is that it is situated a little further to the east. A second hole, Z4069_005, was drilled on that basis, but was terminated after intersecting a cross fault before reaching the target. Historical drill hole HB106, which was drilled on a geophysical target, did intersect Base of Reef mineralisation (5.0m @ 5.5% Zn+Pb) 600m along strike to the southwest of ZMI's hole, further highlighting the potential of this emerging prospect area (Figure 2).

There are several significant implications from the results of Z_4069_004:

- Firstly, mineralisation is observed within a fault zone that underwent as much as 150m of vertical displacement. Such growth faults are known to be a key ingredient of Irish zinc deposits.
- Secondly, the mineralisation observed thus far occurs at various stratigraphic levels, consistent with observations elsewhere in the Kildare district.
- The western margin of the Allenwood Graben is virtually untested, opening up a prospective strike length of approximately 4km.
- Furthermore, the mineralisation in the sub-reef occurs at significantly shallower depths than at McGregor and Shamrock, indicating the potential for Base of Reef and Sub-Reef mineralisation to be found 'stepping down' eastwards towards the thicker core of the graben (figure 3).

Management Comment

ZMI's Managing Director Peter van der Borgh said that Z_4069_004 had delivered a game changer for the Company.

"It's hard not to emphasise the significance of these results. Achieving an intersection grading twenty percent zinc over a three-metre thickness in a new area is highly encouraging in light of our rationale for targeting there, and we now have an exciting new prospect in close proximity to the McGregor Resource offering considerable leverage to the upside.

"We're currently in the process of planning and permitting the next round of drilling, during which we'll be aiming to add significant tonnes to the McGregor Resource by following up on the spectacular intercept there in June, while at the same time taking a good look at what Celtic Tiger means for the future of the project."



Yours faithfully,

Peter van der Borgh

Managing Director Zinc of Ireland NL

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Competent Person Statement

The information in this document that relates to exploration results is based on information compiled by Mr Peter van der Borgh BSc (Hons, 1st Class), a Competent Person who is a Fellow of the Geological Society of London. Mr van der Borgh is a director and shareholder of Zinc of Ireland NL. Mr van der Borgh 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 van der Borgh 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 INFORMTION 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	 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. 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. 	 Sampling is by half core (generally NQ diameter) of mineralised sections only. The entirety of the drill hole has not been sampled and additional samples, if collected, may be reported at a later time. Sampling has occurred within lithological domains and as such does not cross lithological boundaries. Samples are prepared by ALS Loughrea, Co Galway by crushing to 70% passing <2mm with a representative sample then split using a Boyd splitter. The split sample is pulverised to 85% passing <75um. The samples are then assayed by a multi element oxidising digestion with an inductively coupled plasma atomic emission spectroscopy finish (ICP-AES). A selection of samples also have specific gravity (S.G.) measured.
Drilling techniques	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).	 Diamond drilling, PQ, HQ and NQ sized. Upper portions of the drill holes were triple tubed or tri-coned to increase hole stability. The core is not oriented.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between 	 Drill core had recovery lengths and RQD estimated. Triple tubing was used to stabilise the hole. There does not appear to be a relationship between recovery and grade.

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Criteria	JORC Code explanation	Commentary			
Logging	sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. • 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. • Whether logging is qualitative or quantitative in nature. Core (or costean,	Drill holes have been logged by a competent representative geologist in Ireland. The detailed logging is ongoing and should support addition into a mineral resource estimate at a later date. A visual estimate of mineral types and amounts and interpreted lithology was			
	channel, etc) photography. The total length and percentage of the relevant intersections logged.	completed using a standardised logging template. • Photography of mineralised zones is complete.			
Sub- sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 Core has been sampled by cutting in half before lab preparation. The sample preparation is considered "industry standard" for this sample type. A representative selection of submitted samples comprised duplicates, blanks and standards which were unbeknownst to the assaying laboratory. The laboratory also conducted internal QAQC checks. Fields duplicates, blanks and standards for the submitted assays have all surpassed internal and ZMI QAQC standards. 			
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. 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. 	 Samples are assayed by a multi element oxidising digestion with an inductively coupled plasma atomic emission spectroscopy finish (ICP-AES). A selection of samples also have specific gravity (S.G.) measured. Ore grade analysis for base metals and associated elements by ICPAES, following a strong oxidizing acid digestion. Elements (low reporting limit/upper limit) –units are % unless indicated otherwise: Ag (1/1500 ppm (µg/g)), As (0.005/30.0), Bi (0.005/30.00), Ca (0.01/50.0), Cd (0.001/10.0), Co (0.001/20.0), Cu (0.005/40.0), Fe (0.01/100.0), Hg (8/10000 ppm (µg/g)), Mg (0.01/50.0), Mn (0.005/50.0), Mo (0.001/10.0), Ni (0.001/30.0), P (0.01/20.0), Pb (0.01/30.0), S (0.05/50.0), Sb (0.005/100.0), Tl (0.005/1.0), Zn (0.01/100.0). Internal QAQC results all appear within limits. Lab-produced QAQC results all appear within limits. 			
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 Drill hole data is compiled digitally by company representatives. Samples are yet to be submitted to an umpire laboratory for check analysis. Holes were not twinned. Assays have been adjusted to represent weighted averages over 1m. Visual mineralisation has been verified by 			



Criteria	JORC Code explanation	Commentary
		several company representatives.
Location of data points	 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. Specification of the grid system used. Quality and adequacy of topographic control. 	 Initial surveys are by hand-held GPS in Irish Grid 65. Collars have been surveyed either by handheld GPS or by a differential GPS: Trimble GPS6000 (RTK GPS accurate to 5mm) Downhole surveys are by Relfex EZ-TRAC and are displayed in Appendix 2. Location of the collar and downhole information is considered appropriate for this stage of exploration.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	 Drill collars are not at a standard data spacing but are placed to intersect maximum metal grades (see plan view maps above). Data spacing for the results contained in this report are not appropriate for resource estimation alone. Sample compositing has not been applied. Assay compositing (combining individual assays into one reportable length) has however occurred.
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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. 	 Down-hole vertical thicknesses have been quoted. Minor rounding due to the true thickness calculation may have occurred but this is not expected to be material. Based on observations elsewhere at Kildare, mineralisation is predicted to be horizontal/sub-horizontal, and therefore downhole thickness is likely to be close to true thickness in a vertical hole.
Sample security	The measures taken to ensure sample security.	Samples were under the custody of company representatives in-country until delivery to the lab.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews have taken place.

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Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	 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. 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. 	 The Kildare Project is comprised of 6 tenements namely PL3846, PL3866, PL4069, PL4070, PL4072 and PL4073. All tenements are 100% owned by Raptor Resources, a subsidiary of Zinc of Ireland NL. No historical, wilderness or national parks are known to infringe significantly on the tenure.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Historical exploration is outlined in GXN Announcement dated 17th March 2016 and associated annexes.
Geology	Deposit type, geological setting and style of mineralisation.	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, The area is considered prospective for breccia-hosted Fe-Zn-Pb deposits (a Mississippi Valley-type mineralisation style).
Drill hole Information	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: a easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 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.	 T_4069_004: 274,920 mE, 224,868mN, 80 mAOD, -90° dip, 360° azimuth, total depth 277.4m. All assay information is in Appendix 1, significant intercepts are in Table 1. T_4069_005: 275,015mE, 224,868mN, 81 mAOD, -90° dip, 360° azimuth, total depth 229.4m, no reported intercept.
Data aggregation methods	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. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for	No minimum cut-off grade has been applied to the reported intersections. Assays have been weighted to 1m intervals. Internal dilution may occur. Reported intersections reflect the highest grade and/or the widest mineralised intersections No metal equivalents have been quoted.



Criteria	JORC Code explanation	Commentary			
	such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.				
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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'). 	 Relationship between true mineralisation width and reported intercepts appear to be either perpendicular or close to for 90° drill holes. Angled holes have a lower angle of intersection and as such true vertical widths have been calculated. 			
Diagrams	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.	Plans and sections appear throughout this release.			
Balanced reporting	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.	 All drill holes with assays received have been reported in Appendix 1. Reported intervals are those which are of the highest grade and/or greatest width. 			
Other substantive exploration data	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.	• N/A			
Further work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	As summarised at the end of the announcement.			

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APPENDIX 1: Assay Results

Hole_ID	Sample No.	From_m	To_m	Interval_m	Ag_ppm	Zn_%	Pb_%
Z-4069-004	50165	82.4	83.5	1.1	1	0.47	0.01
Z-4069-004	50166	83.5	84.75	1.25	2	1.84	0.02
Z-4069-004	50167	84.75	85.7	0.95	2	8.36	0.47
Z-4069-004	50168	85.7	86.95	1.25	<1	3.84	0.22
Z-4069-004	50169	86.95	88	1.05	<1	1.3	0.25
Z-4069-004	50170	102.1	103.1	1	<1	1.01	0.02
Z-4069-004	50171	103.1	103.45	0.35	2	4.12	0.10
Z-4069-004	50172	103.45	104.6	1.15	1	5.70	0.20
Z-4069-004	50173	104.6	104.95	0.35	<1	0.02	0.01
Z-4069-004	50174	104.95	105.6	0.65	1	4.20	0.08
Z-4069-004	50175	105.6	106.6	1	<1	0.03	0.01
Z-4069-004	50177	106.6	107.2	0.6	2	0.39	0.01
Z-4069-004	50185	107.2	107.5	0.3	3	5.32	0.25
Z-4069-004	50178	108.1	109.1	1	<1	3.93	0.10
Z-4069-004	50179	109.1	109.8	0.7	<1	0.01	<0.01
Z-4069-004	50180	109.8	110.65	0.85	<1	0.11	0.05
Z-4069-004	50181	110.65	111	0.35	<1	0.02	<0.01
Z-4069-004	50182	111	112.4	1.4	<1	1.73	0.04
Z-4069-004	50183	112.4	112.7	0.3	2	<0.01	<0.01
Z-4069-004	50184	112.7	113.7	1	<1	0.01	<0.01
Z-4069-004	50137	190.1	190.7	0.6	1	0.01	<0.01
Z-4069-004	50138	190.7	190.9	0.2	<1	<0.01	<0.01
Z-4069-004	50139	190.9	191.9	1	<1	0.01	<0.01
Z-4069-004	50140	191.9	192.9	1	2	0.02	0.01
Z-4069-004	50141	192.9	193.9	1	<1	0.72	0.01
Z-4069-004	50142	193.9	194.5	0.6	1	7.26	0.21
Z-4069-004	50143	194.5	194.75	0.25	11	32.00	1.65
Z-4069-004	50145	194.75	195.6	0.85	6	34.00	1.41
Z-4069-004	50146	195.6	196.4	0.8	8	14.55	0.89
Z-4069-004	50147	196.4	196.75	0.35	1	13.65	0.15
Z-4069-004	50148	196.75	197.7	0.95	1	0.86	0.01
Z-4069-004	50149	232.4	233.6	1.2	2	0.02	<0.01
Z-4069-004	50150	233.6	234.05	0.45	<1	0.61	0.04



Hole_ID	Sample No.	From_m	To_m	Interval_m	Ag_ppm	Zn_%	Pb_%
Z-4069-004	50151	234.05	235.1	1.05	3	10.25	0.49
Z-4069-004	50152	235.1	236.2	1.1	<1	4.44	0.09
Z-4069-004	50153	236.2	236.75	0.55	<1	0.03	0.01
Z-4069-004	50154	236.75	237.05	0.3	1	3.30	0.32
Z-4069-004	50155	237.05	238.35	1.3	<1	0.01	<0.01
Z-4069-004	50156	238.35	239.35	1	<1	0.03	<0.01
Z-4069-004	50157	239.35	240.35	1	<1	0.56	0.02
Z-4069-004	50158	240.35	240.9	0.55	<1	0.01	<0.01
Z-4069-004	50159	240.9	241.7	0.8	2	0.46	0.04
Z-4069-004	50160	241.7	242.1	0.4	4	0.45	0.42
Z-4069-004	50162	242.1	242.4	0.3	3	2.81	0.06
Z-4069-004	50163	242.4	243.4	1	1	0.10	0.01

Note: All depths are downhole



Appendix 2: Z_4069_004 Downhole Surveys

Hole_ID	Depth_m	Azimuth	Dip
Z-4069-004	276	234.2	89.1

Note: Azimuth is magnetic.