

ASX Release
25 July 2017
ASX: LFR

New gravity anomalies highlight potential for significant increase in Resources at Keel Zinc Project in Ireland

Highlights

- Gravity survey at Keel Zinc Project completed
 - Two key gravity anomalies identified, both adjacent to the current Inferred zinc mineralisation
 - Key Keel Fault Structure continues to north and south of known zinc mineralisation
- Four (T1-T4) potential extensional resource zones identified; Zones T1 and T4 are supported by the gravity anomalies and are along strike from known mineralisation
- Aerial magnetic and electromagnetic data (2015 Irish Gov. data) has been processed to assist with further target generation and structural interpretation.
 - Cross-cutting fault identified across the main Keel Structure
- Samples from holes KD-2017-008, KD-2017-010 and KD-2017-012 have been delivered to Lab for assay with results expect within 2 weeks

Longford Resources Limited (ASX: LFR) (**Longford**) is pleased to announce highly promising results from its maiden geophysical programs at the Keel Zinc Project in Ireland.

The gravity survey has identified two significant anomalies close to the existing Inferred Resource (6.9Mt at 5.6% zinc and 0.8% lead). At the same time, the structural interpretation shows that the key fault structure which controls the mineralisation continues to the north and south of the known mineralisation, highlight the strong potential for grow the Resource.

Longford Chief Executive Scott Mison said: "The collection and assimilation of millions of dollars worth of historical data, combined with new exploration methods, is considered the key to delivering exploration success at Keel. The recently completed gravity survey has shown the Keel structure is continuous beyond the known zinc mineralisation, demonstrating the significant prospectivity of our land holding. We will now undertake a geophysical interpretation of all data to help prioritise our exploration activities within the 10km of the Keel Inlier that remains under-explored."

Preliminary Extensional Resource Zones

As part of its ongoing exploration efforts, Longford engaged CSA Global to delineate areas near the existing mineralised envelope that require further drilling. Four zones were identified. T1-T4. (see figure 3) which have the potential to lift the existing inferred resource. CSA's first-pass targeting was focused on obvious gaps in drilling in the mineralised zone and areas with direct extension potential. This targeting is considered preliminary only with the understanding that it would be reviewed and re-designed based on drill results from the resource validation programme.

Longford Resources considers T1 and T4 as key areas of interest. Both areas have significant scale and coincident gravity anomalies (Figure 4) supporting the geological interpretation. Longford intends to drill a stratigraphic drill hole into T4 to test the geological interpretation and fault position.

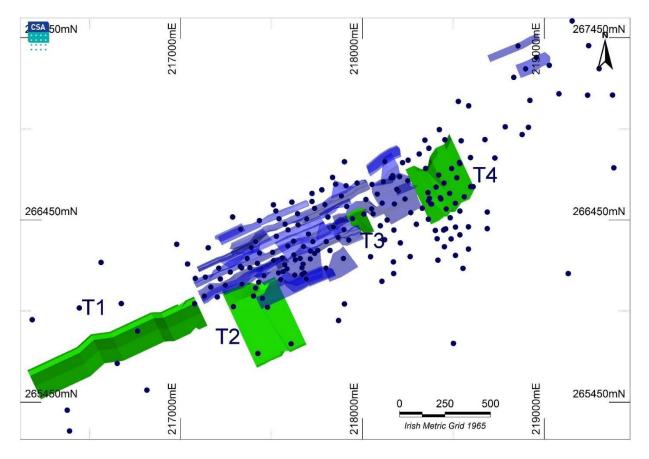


Figure 1 Plan view showing existing Mineral Resource wireframes (blue) and target wireframes (green)

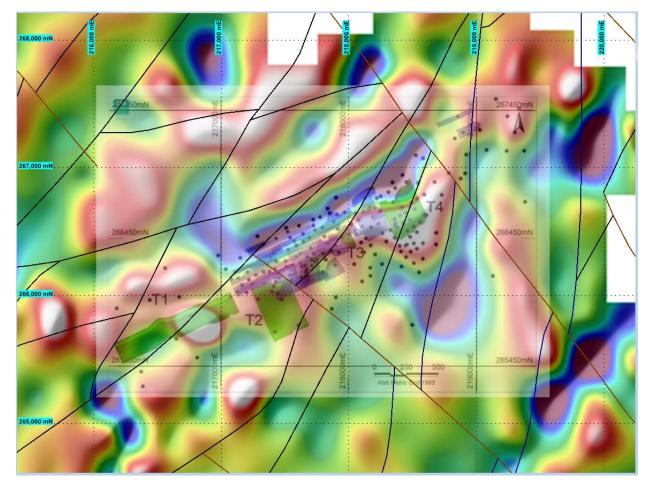


Figure 2: Gravity Image overlay Structural Inpreation and the Extension Resource Zones T1-T4

Description of the Four Prospective Zones Identified by CSA

T1 zone is along strike of the Keel Main Fault in the direct southwest continuation of the main zone mineralisation. Although mineralization has been partly closed off at the southwest end of the resource, the area further southwest is poorly tested and mostly by shallow holes. There is also surface geochemical anomalism, especially in Zn, over the Navan Beds and Basal Clastics; this may represent up-dip leakage anomalism. **Note discrete gravity anomaly over T1**

T2 zone is down dip of the Keel Main Fault, in a similar position as KA167. This position is previously untested to the southwest of KA167. KA165 which is 225 m northeast of KA167 only intersected very weak mineralisation, however the zone could strengthen to the southwest related to a fault relay. (Fault relay are main structural host of the zinc)

T3 zone is up dip of Keel Main Fault. There is a 100m of strike here that has not been tested previously. The upside tonnage potential from this hole is limited and it is considered low priority.

T4 zone is along strike of Keel Fault, below the Garrycam barite mineralisation which occurs in the basal Waulsortian limestone. The Garrycam mineralisation is also variably anomalous in Zn (approx. 2.5% Zn) and is considered part of the same mineralising system, similar to the situation at Silvermines/Ballynow where massive barite occurs peripherally to the massive sulphide orebodies. **Note gravity anomaly over T4.**

The Garrycam barite mineralisation was closely drilled, but the holes were not deep enough to test the Keel Fault position close to the Lower Palaeozoic contact in Navan beds below ABL Unit.

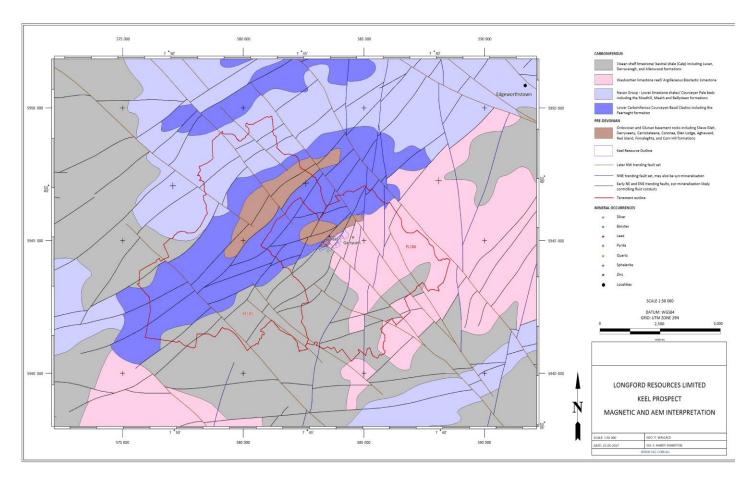


Figure 3: Geophysical interpretation of Keel Zinc Project.

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Forward Looking Statements

The announcement contains certain statements, which may constitute "forward –looking statements". Such statements are only predictions and are subject to inherent risks and uncertainties, which could cause actual values, results, performance achievements to differ materially from those expressed, implied or projected in any forward-looking statements.

The information in this report that relates to previous exploration results is collected from Minerals Ireland reports submitted by other explorers.

Competent Person Statements

The information in this report that relates to Exploration Results is based on information compiled by Mr Charles Guy a director of the Company, and fairly represents this information. Mr Guy is a Member of The Australian Institute of Geoscientists. Mr Guy has sufficient experience which is relevant to style of mineralisation and type of deposit under consideration and to the activity being undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Charles Guy consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mr Guy, director, currently holds securities in the Company.

References

American Smelting and Refining Company. (1971). Report of Exploration Completed by the American Smelting and Refining Company on the Rio Tinto Finance and Exploration Ltd Prospecting Licence Nos 183 to 186 incl, 580 to 582 incl and 664, 666 and 667 between May 1 1970 and October 19 1971. Company Report.

Dawes, A. (2016). Summary Exploration Report and Further Exploration Potential for PL185 and PL186. Consultant Report.

Slowey, E. (1986). The Zinc-Lead and Barite Deposits at Keel, County Longford. *Geology and Genesis of Mineral Deposits in Ireland*, 319-330.

Appendix 1 Keel Mineral Resource

CSA Global was engaged by Longford to undertake a Mineral Resource estimate at the Keel Zinc Project in Ireland. CSA Global have reported the Mineral Resource estimate in accordance with the JORC Code¹, which is summarised in Table 1.

Table 1: Keel Zinc Deposit Mineral Resource Estimate, March 2017 (4% Zn cut-off)

JORC Classification	Cut-off grade	Density (t/m³)	Tonnes (Mt)	Zn (%)	Pb (%)
Inferred	4% Zn	2.85	6.9	5.6	0.8
Grand Total		2.85	6.9	5.6	0.8

^{*}Note relating to Table 1. Due to effects of rounding the total may not represent the sum of all components.

The Mineral Resource estimate is based on historic drilling results obtained between 1963 and 2012. The Mineral Resource estimate has been classified as Inferred, reflecting risk relating to:

- The assignment of assumed average density values, based on data from similar deposit types;
- A paucity of QAQC data pertaining to the input data;
- A wide spacing between drillholes, negatively impacting estimation quality;
- The use of an assumed collar elevation for most input drillholes;
- The assumption of straight drillhole paths, due to the absence of downhole survey data;
- The geology model being based on sectional interpretations drawn from published papers; and
- The absence of core photography for the input drillholes.

Competent Persons Statements

The information in this table that relates to Mineral Resources is based on information compiled by Mr Steve Rose and Mr Charles (Bill) Guy. Mr Steve Rose is a full-time employee of CSA Global Pty Ltd and is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Charles Guy is a full-time employee of Longford Resources Limited and is a Member of the Australian Institute of Geoscientists. Mr Steve Rose and Mr Charles Guy have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Steve Rose and Mr Charles Guy consent to the disclosure of the information in this report in the form and context in which it appears. Mr Charles Guy, is a director of Longford Resource and currently holds securities in the Company.

Appendix 2 Geophysical Programs

Gravity

Detail gravity was completed across the central zone of PL 185 and PL186. The ground gravity survey used multiple grids 150 by 300 and 300 by 300. The survey was carried out on foot using a three-man team on foot.

This dataset contains images, grids, contours and station locations derived from ground gravity data collected in 2017 in the Keel project area near Longford in the Republic of Ireland. Data were collected by Atlas Geophysics and delivered to SGC for processing in July 2017.

Bouguer anomaly data were calculated using a range of correction densities and sensor elevations based on the modified Airy ellipsoid. A correction density of 2.67 g/cm3 was used for the final products.

Residual anomaly data were calculated by two methods:

- subtract a 200m-upward-continued Bouguer anomaly grid from the original Bouguer anomaly grid.
- subtract a second order polynomial filtered Bouguer grid from the original Bouguer anomaly grid.

All gravity data are reported in milliGals (mGal).

Final products are delivered in a MapInfo-compatible format using the Irish datum and Irish Grid projection.

¹Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Prepared by: The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC).

2015 Aereal Magntic and Eletromagntic (AEM) Data

The 2015 aereal magntic and AEM data from the Irish government was reprocessed into over 50 images. The reprocessed images and data were used by Southern Geoscience to produce a structural interpretation map (see Figure 4 below).

Flight Summary Details Table 1

SURVEY NAME	METHODS	JOB #	CONTRACTOR	SURVEY YEAR	FLIGHT LINE SPACING (metres)	MEAN TERRAIN CLEARAN CE (metres)	FLIGHT LINE DIRECTION (degrees)	DATA STATUS
Keel	MAG	CGG		2015	200	117	165 - 345	Confidenti al

APPENDIX 3 - JORC TABLE 1

Section 1 Sampling Techniques and Data

Cuitonio	JODG Code evalenction	
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.	Geochemical analysis (assays) of half drill core samples
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Samples have been collected on the basis of geological observations. Core containing visible sulphide minerals was sampled. Some intervals without visible sulphide minerals but located between mineralised intervals were also sampled to give additional geochemical information.
	Aspects of the determination of mineralisation that are Material to the Public Report.	A drill rig was used to drill core using a water cooled diamond impregnated drill bit .
	In cases where 'industry standard' work has been done this would be	Half core samples were submitted to ALS laboratories in Loughrea co. Galway, Republic of Ireland for analysis.
	relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30	Core samples were treated as rock samples. Crushed to 2mm then ground and pulverised to produce 1g samples, analysed by Mass Spectrometer following a 4 acid digest.
	g charge for fire assay'). In other cases more explanation may be required, such as where there is	ALS' Standard ME-MS61 Method was used. Samples returning more than 1%Zn, more than 1%Pb or more than
	coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	100g/t Ag were re-assayed using ALS' OG62 method for ore grade material.
Drilling	Drill type (e.g. core, reverse	Samples were of diamond drill core.
techniques	circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core	HQ3 diameter. Triple tube recovery method.
	diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether	Loose sediments (glacial till) at the top of the holes was not recovered.
	core is oriented and if so, by what method, etc.).	Samples start into the bedrock.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Core recoveries were checked by measuring the length of core recovered at each 1.5m run and compare that length with the drilled depth recorded by the driller.
		Overall fresh bedrock recoveries are over 99%.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Drilling was done using triple tube to maximise recovery of core.
	Whether a relationship exists between sample recovery and grade and whether sample bias	No sample bias is expected, because of the drilling or the sampling technique.
	may have occurred due to preferential loss/gain of fine/coarse material.	Recoveries were in excess of 90% and there are no indications of material loss which could have introduced a bias in the results.
Logging	Whether core and chip samples have been geologically and	Core was logged for:

Criteria	JORC Code explanation	Commentary
- Troilia	geotechnically logged to a level of	-Recovery
	detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	-Rock Quality Denomination (RQD)-geotechnical logging
		-Geology, including lithology, alteration, structure and mineralisation.
	Whether logging is qualitative or quantitative in nature. Core (or	Logging is qualitative in nature.
	costean, channel, etc) photography.	Photograph of the core have been taken before processing for records and further observations.
	The total length and percentage of the relevant intersections logged.	100% of the core recovered was logged.
Sub- sampling	If core, whether cut or sawn and whether quarter, half or all core	Half core samples were collected.
techniques and sample	taken.	When the rock was sufficiently competent, core was sawn in half.
preparation		When rock was too soft or too brittle to be cut, samples were generated using a cold chisel to split the core in half.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Core samples
	For all sample types, the nature, quality and appropriateness of the sample preparation technique	Core was cut in halves. following the "bottom of hole" orientation line. Left half of the core was collected into a numbered calico sample bag and right half of the core was returned to the core box.
		Sample have then been taken to the laboratory where they have been processed as rock samples. Crushed, ground and pulverised as per ALS' standard procedure.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity	. 100% of the half core in each sampled interval was submitted.
	of samples.	Samples are representative of each reported interval.
		Core was sampled in 1m intervals.
	Measures taken to ensure that the	Half core was submitted.
	sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	Pulps and crushing refuse will return from the laboratory. Duplicate samples of the 2mm crushed fraction will be submitted for duplicate analysis.
		If needed, half core has been kept and can be cut into quarter core for duplicate sampling.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	1m long half core samples were submitted and are representative of 100% of the sampled interval.
Quality of assay data and	The nature, quality and appropriateness of the assaying and laboratory procedures used	The samples have been assayed using a Mass spectrometry method following a 4 acid digest.
laboratory tests	and whether the technique is considered partial or total.	The 4 acid digest is considered a total digest and the ME-MS61 method supplies analysis for 48 elements.
		Ore grade material was re-assayed using an Atomic Emission Spectrometer (AES) appropriate to measure metal grades over 1% for Zn and Pb and over 100g/t for Ag.
	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	Not Applicable.

Criteria	JORC Code explanation	Commentary
	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 of Certified Reference Material (CRM or "standards") were introduced in the sampling sequence at a rate of 1 CRM sample for every 20 samples submitted. CRM samples were chosen to have grades similar to the estimated grade of the submitted samples to respect the analytical continuity of the sequence. All assays of CRM have returned within the acceptable range.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Samples submitted have been verified prior to submission by the company's consultant exploration manager and the company's Managing Director.
	The use of twinned holes.	At this stage in the progress of the drilling program, no twinned holes have been drilled.
	Documentation of primary data,	All data is acquired on printed paper tables.
	data entry procedures, data verification, data storage (physical and electronic) protocols.	Data is then entered into Excel Spreadsheets.
	and clock office protection	Those spreadsheets are stored on a cloud server with liimited access and continuous live record of subsequent modifications.
	Discuss any adjustment to assay data.	No adjustment to assay data has been made.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches,	Drillhole locations have been surveyed using a Leica differential GPS system with a typical accuracy of 10cm (.01m)
	mine workings and other locations used in Mineral Resource estimation.	Downhole surveys were conducted at regular intervals (~30m) using a reflex single shot instrument. This instrument records the magnetic azimuth of the hole, the dip of the hole as well as the temperature and the earths magnetic field intensity at the time of the measurement.
	Specification of the grid system used.	The grid system used is the National Irish metric Grid (1965 projection)
	Quality and adequacy of topographic control.	Holes were located prior to drilling using a handheld GPS device, Final hole location was subsequently recorded using a differential GPS.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The two drillholes reported in this release have been drilled from the same location at two different dip angles. Maximum separation between the two holes at depth is in the range of 25-30m
	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.	The data presented in this release is not yet integrated into a Mineral Resource Estimate.
	Whether sample compositing has been applied.	Following a mistake in the handling of the samples at the laboratory, one sample is a composite of two contiguous one metre intervals.
		Sample composites have been reported. Samples were made of 1m of core.
		Intervals were calculated using a weighted average value over the reported interval.
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.	The Keel deposit is interpreted from historical data as being steeply dipping to the South East. Drill holes were oriented towards N350 to intersect the deposit at an angle close to perpendicular.

Criteria	JORC Code explanation	Commentary
	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.	The drilling intersected the mineralised structures at an angle and no bias was introduced by the drilling direction. Intervals reported are downhole width and true width have not been calculated.
Sample Security	The measures taken to ensure sample security.	Samples were cut and bagged at a shed rented by Longford Resources. Bags were closed individually and bundles of 5 bags were then tied using single use cable ties.
		Longford Resources have exclusive access to the facility. Only Longford Resources employees and contractors have access to the shed and the facility is closed to visitors at allI times. Samples were transported by the Exploration Manager and a Junior geologists to the laboratory and handed to ALS personnel directly.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Sampling procedures have been advised by specialist consultants to the company. No audit of the data has taken place at the time of the release.

Section 2 Reporting of Exploration Results

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,	The project comprises two exploration licences, P185 and P186. LFR has an option to purchase 80% of the tenements. Licences are currently granted and before the announced transaction, owned at 80% by Diversified Asset Holdings Pty Ltd. Ownership information has been verified by consulting the Minerals Ireland website.
	historical sites, wilderness or national park and environmental settings.	On PL185 there is Mount Jessop Bog Natural Heritage Area, and Lough Bawn Proposed Natural Heritage Area, but these are outside of the Keel Deposit area.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in	Exploration licences P185 and P186 are granted, in a state of good standing, and have no known impediments to operate in the area.
Exploration	the area. Acknowledgment and appraisal of	Previous exploration was conducted from 1963 to 2012.
done by other parties	exploration by other parties.	This exploration work was carried out by various companies including Rio Tinto, ASARCO, Lundin Mining.
		Longford Resources has an extensive database of historic reports and information that it has collated into a drillhole database file.
		That said, there is still information that has still to be incorporated.
Geology	Deposit type, geological setting and style of mineralisation.	Keel Deposit is an Irish Base Metal type Carbonate Hosted Lead-Zinc deposit.
		The mineralisation is hosted by lower Carboniferous sandstones, conglomerates and carbonates which unconformably overlie Lower Palaeozoic basement. This Lower Palaeozoic basement is an inlier in the licence area, and forms the core of a broad anticline, with beds dipping moderately to the northwest and southeast on fold limbs.
		The inlier is fault bounded by the Keel Fault to the south. This shows as a series of normal faults.
		The stratigraphy of the licence area is well documented in published works.
		Mineralisation occurs as sphalerite, galena and pyrite. Sphalerite and galena are dominant in mineralisation controlled by the Keel Fault. Sphalerite occurs as coarsely crystalline cavity-fill and fine disseminations.
		Mineralisation is associated with steep to moderate dipping faults which mainly trend northeast-southwest and dip 45-850 to the south. Mineralisation can thicken as the associated fault passes through favourable beds.
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:	Drill hole collar and surveys have been reported in the release.

Criteria	JORC Code explanation	Commentary
	interception depth	
	o 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.	No information has been excluded from this release
Data	In reporting Exploration Results,	No cut off have been applied to the data.
aggregation methods	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.	Combined intervals are reported using average values weighed by linear length of core.
	Where aggregate intercepts	All samples were 1 m intervals.
	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 in detail.	
	The assumptions used for any reporting of metal equivalent	No metals equivalent calculated nor reported
Relationship	values should be clearly stated. These relationships are	No true widths have been calculated.
between mineralisatio n widths and	particularly important in the reporting of Exploration Results.	Intervals reported in this release are downhole intervals.
intercept lengths	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	The drillhole was aimed at interesting the mineralisation perpendicularly or at a low angle. The structural nature of the mineralised system means that the exact shape of the mineralisation is yet to be confirmed.
	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').	Only down hole lengths are reported.
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.	Relevant maps and diagrams are included in the body of the report.
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 analysed samples have been reported. Only results for Zn, Pb and Ag are being reported as other elements are deemed not relevant to the type of deposit.
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	No substantive exploration exist that has not been reported in this release or any previous release by Longford Resources.

Criteria	JORC Code explanation	Commentary
	rock characteristics; potential deleterious or contaminating substances.	
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further drilling is progressing with 2 drill rigs currently operating on site.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Diagrams have been included in the body of this report.