ASX ANNOUNCEMENT

ASX : CXO

5th May 2015

New zinc target identified at Black Gate Prospect

HIGHLIGHTS

- **New highly anomalous results confirm regional potential for zinc mineralisation in the NT**
- **New Black Gate Prospect soil results show a range of anomalous metals like Blueys/Inkheart, but with much higher zinc levels**
- **Core has 100km strike of the target silver-lead-zinc host geology under tenure**

Core's Exploration Ltd.'s (ASX:CXO) first regional exploration for zinc mineralisation has been successful north east of Alice Springs in the NT. Surveys have found highly anomalous zinc, lead and other metals in soils at Black Gate Prospect, that are typical of the anomalous metals in soils around the high-grade sulphide intersections drilled by the Company at Inkheart and Blueys in 2014.

Core recently completed geological mapping and soil surveys on EL 27709. The newly identified Black Gate Prospect has returned exciting new results in the same host geology at Inkheart, but in a previously untested area 25km to the west (Figure 1).

Lead and silver results are considered comparable to those obtained over Blueys and Inkheart, but Core is enthused by the elevated zinc values that are an order of magnitude higher at Black Gate (Figure 2). Zones of anomalous geochemistry have been outlined over at least 1 kilometre strike length and remain open to the south (Figure 2).

Several iron-rich gossans were mapped, with the most significant found along the contact between Bitter Springs Formation and crystalline basement associated with elevated lead, zinc, antimony and silver typical of the metal suite found at Inkheart.

On the strength of these new results and previous discovery drilled at Inkheart, Core has built a tenure position covering over 100km strike of the target Bitter Springs host geology structurally juxtaposed on the crystalline basement rocks of the east Arunta.

Core intends to continue testing to identify additional new targets over a number of its tenements in the NT.

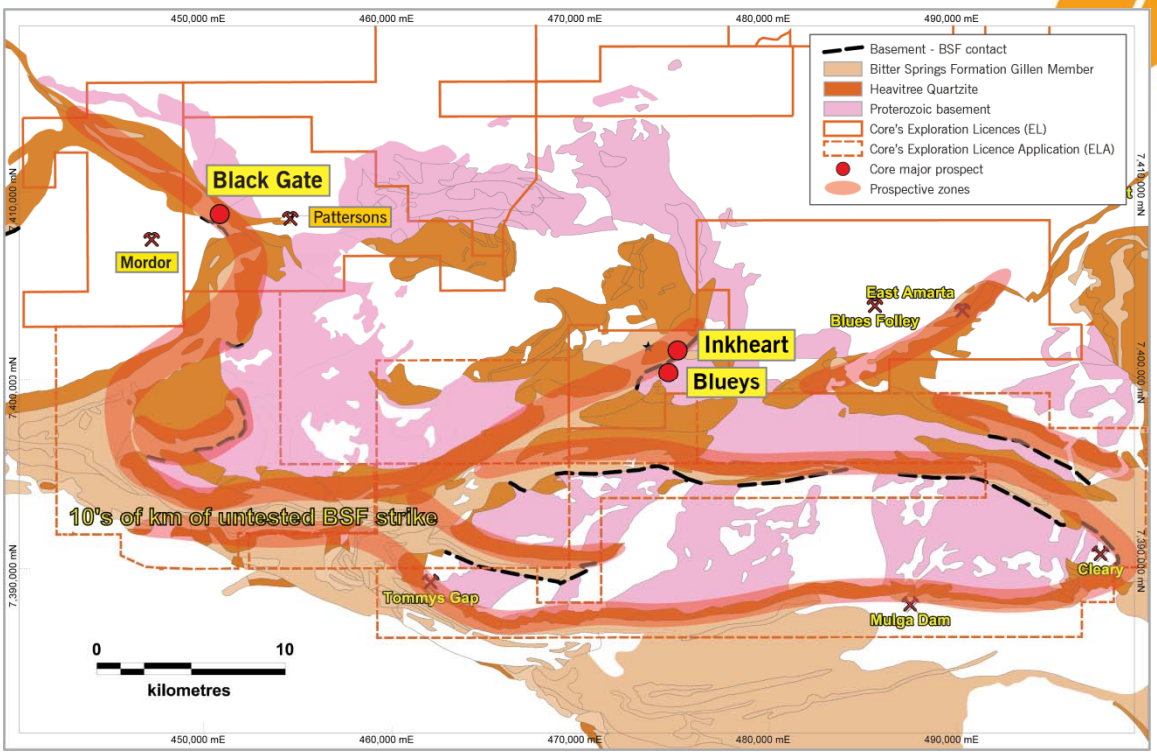

Figure 1. Black Gate and Inkheart Prospect location and Core's tenements overlain on regional geology and highlighted interpreted prospective zones, NT.

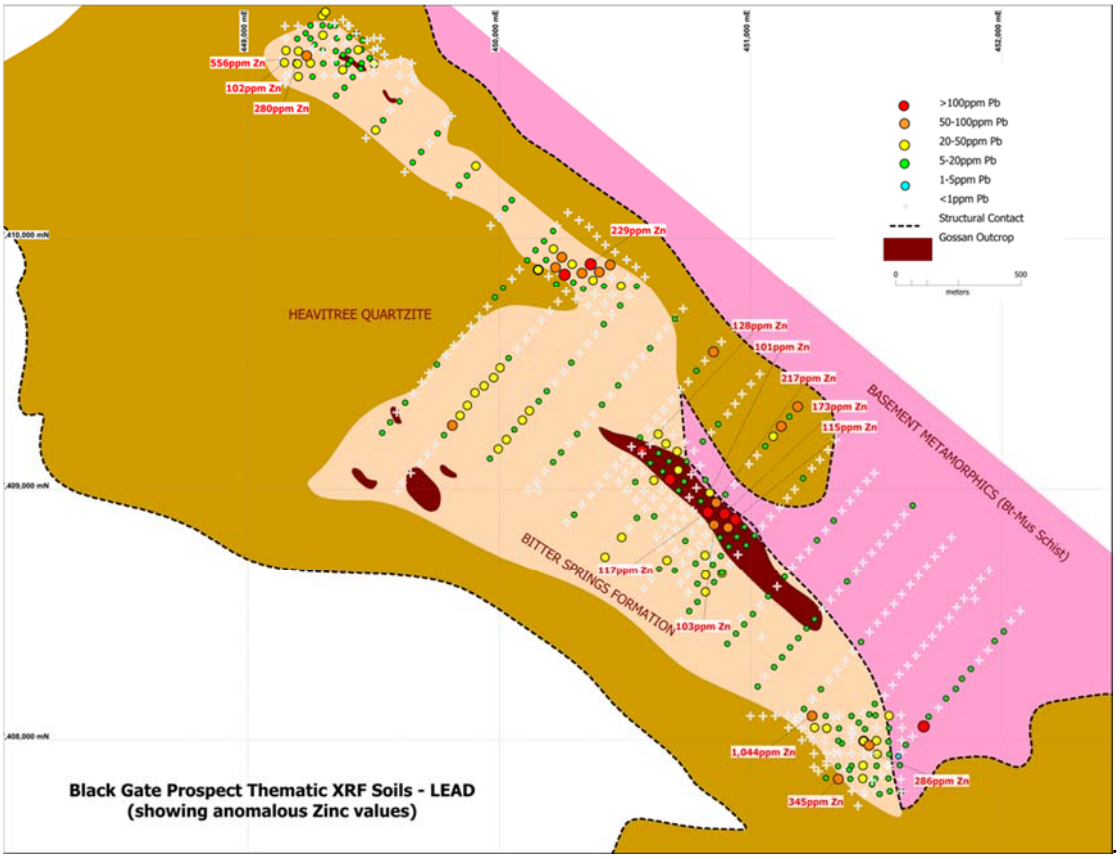

Figure 2. Lead and anomalous Zinc in soils overlain on local geology, Black Gate Prospect, EL 27709.*

Next Steps

Based on its success, Core intends to continue this high yielding exploration over a number of its tenements. The targets generated from this work will be ranked against the signature at Blueys/Inkheart that reflects silver lead zinc sulphide mineralisation at depth.

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The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Stephen Biggins (BSc(Hons)Geol, MBA) as Managing Director of Core Exploration Ltd who is a member of the Australasian Institute of Mining and Metallurgy and is bound by and follows the Institute's codes and recommended practices. He has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being 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". Mr. Biggins consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

**A Niton XL3t GOLDD+ hand held XRF analyser which was used for the majority of the analysis. To further confirm the Niton XRF analyses, a small subset (25 samples) of the initial samples were sent to Intertek Genalysis for TL7 partial leach analysis. Predictably, whilst absolute values varied the trend of anomalism was confirmed demonstrating the appropriateness of the technique. Whilst absolute numbers are not a direct correlation to those collected by partial leach analysis the general trend of anomalism correlates remarkably well with both Blueys and Inkheart registering as significant anomalies in the XRF soils.*

Black Gate XRF Soils – May 2015– JORC 2012

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. 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 (e.g. 'RC 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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	• -20 mesh sieved soil samples (~200g) and sporadic rock-chip samples (~500g) where soil under developed. • Samples collected at 50 metre centres on 200 metre spaced traverses infilled to 50 x 50 metres where anomalous. • Soil samples collected from a nominal 5-10cm depth
Drilling techniques	• *Drill type (e.g. core, RC, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).*	• Soil sampling only
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• Soil sampling only

Criteria	JORC Code explanation	Commentary
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	
Logging	• *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, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Various sample site parameters are recorded for each site including: Terrain, Cover Characteristics, Presence of organics, soil type, lag type, sub-crop type, vegetation. • Rock chips photographed
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.*	• See sampling section above for a description of sampling and sub-sampling techniques. • Sample sizes are considered appropriate for the expected grainsize of mineralisation. • Every twentieth sample collected for analysis was duplicated. A certified standard was analysed in sequence every 25 analyses. • Subsampling techniques are undertaken in line with standard operating practices in order to ensure no bias associated with sub-sampling. • The nature, quality and appropriateness of the sampling technique is considered adequate for the type of mineralisation and confidence

Criteria	JORC Code explanation	Commentary
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	level being attributed to this initial reconnaissance soil sampling.
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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• Analysis was undertaking using Core Exploration's Niton XL3t 950 GOLDD+ handheld XRF (SN:61847) in "*SOIL*" mode • Analysis was undertaken under controlled conditions using a Niton Portable Stand and the analyser directly connected to a computer located in an air-conditioned room • The Niton has a new XRF tube and was calibrated by Portable Analytical Solutions in March 2015 • Analysis time was 90 seconds (30 seconds for each window) • No other calibration adjustments were made. • Samples were wrapped in a single layer of cling film for analyses and standards when used were also wrapped in a single layer of cling film. Only negligible attenuation was observed analysing standards with or without the cling film wrap • Duplicates and a certified standard (Niton RCRApp which was considered appropriate for silver and base-metals) were inserted in sequence as detailed above. • 25 samples were selected for certified laboratory check-analysis by Intertek Genalysis (Perth) using their TL7 partial leach analysis for Ag-Cu-Pb-Zn
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.*	• Primary data is captured directly into an in-house referential and integrated database system designed and managed by the Exploration Manager. All analysis data is cross-validated within the database by various integrity scripts. • Analysis data is not adjusted.

Criteria	JORC Code explanation	Commentary
	• *Discuss any adjustment to assay data.*	
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.*	• All coordinates are recorded in GDA 94 MGA Zone 53. • Surveys were undertaken by Core Exploration staff using a hand-held GPS this tool has an accuracy of approximately 3m.
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.*	• Initial reconnaissance soil sampling only. • Initial samples collected at 50m spacing on 200m spaced traverses with infill to 50 x 50 metres over anomalous areas (see figures) • No compositing has been applied
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.*	• Initial reconnaissance soil sampling only
Sample security	• *The measures taken to ensure sample security.*	• Samples are retained by the company for future reference and are stored in a rented secure storage area in Alice Springs
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews have been undertaken

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	• *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 Black Gate Prospect is contained within EL 27709 that is 100% held by DBL Blues Pty Ltd a wholly owned subsidiary of Core Exploration Ltd. • Core Exploration manages EL 27709. • EL 27709 is located on The Gardens Station. • All drilling was undertaken outside of Heritage, Conservation or National Parks on EL 27709.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Historical exploration is very limited in the Black Gate Prospect area however extensive exploration has been undertaken by numerous parties on Mordor Pound targeting Ni –PGE in a discrete ultramafic complex
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The mineralisation style targeted is akin to Blueys Inkheart Ag-Pb-Zn mineralisation hosted within juxtaposed blocks of overthrust Bitter Springs and Heavitree Quartzite Formations
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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* • *If the exclusion of this information is justified on the basis that the*	• Reconnaissance soil sampling only

Criteria	JORC Code explanation	Commentary
	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.	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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 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.*	• Initial reconnaissance soil sampling only. No metal equivalents are reported.
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 (e.g. 'down hole length, true width not known').*	• Initial reconnaissance soil sampling only.
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.*	• See attached plans showing sample density.
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 soil analyses are reported
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*	• Geological mapping confirmed biotite-muscovite schist of the White Range Nappe Complex over thrust on Bitter Springs Formation and Heavitree Quartzite Units of the Amadeus Basin Formations. Iron rich gossans were noted in the Bitter Springs Formation especially in contact with overthrust basement

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	deleterious or contaminating substances.	
Further work	• *The nature and scale of planned further work (e.g. 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.*	• Subject to Board approval further soils, geophysics and drilling may be undertaken