

Market Announcement



22 Nov 2017

November 2017 – Highlights

Cobalt Blue Holdings Ltd A Green Energy Exploration Company



ASX Code:

COB

Commodity Exposure: Cobalt & Sulphur

Directors & Management:

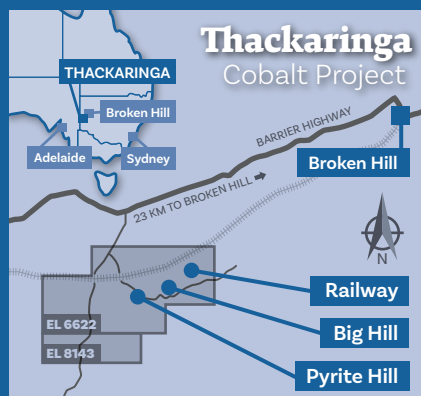
Robert Biancardi	Non-Exec Chairman
Hugh Keller	Non-Exec Director
Trangie Johnston	Non-Exec Director
Matt Hill	Non-Exec Director
Joe Kaderavek	CEO & Exec Director
Ian Morgan	Company Secretary

Capital Structure:

Ordinary Shares at 22/11/2017:	95m
Options (ASX Code: COBO):	21.2m
Market Cap (undiluted):	\$18m

Share Price:

Share Price at 22/11/2017:	\$0.27
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Multiple large exploration targets identified at Thackaringa Cobalt Project

Successful completion of a 633-line kilometre helicopter borne geophysical survey over the Thackaringa Project, 23km south-west of Broken Hill.

- Survey delivers strong results and targets. Preliminary geophysical survey results support fresh exploration targets with clear potential to extend known mineralisation, as well as identifying a previously unknown target south of Pyrite Hill.
- Thackaringa's three deposits have a significant combined strike length of 4.5 kilometres, with widths varying from 25 to 100 metres. These results support substantial future additions to the Thackaringa resource, particular down dip.
- Cobalt Blue currently completing a significant 13,500m drilling program, supporting a major resource upgrade target (40Mt Indicated Resource by 1 April 2018).
- Pre-Feasibility Study work continues with geotechnical, environmental and next metallurgical testwork announcement (focussed on Calcine and Leach steps) expected shortly. PFS delivery due 30 June 2018.

Cobalt Blue's CEO, Joe Kaderavek commented:

"Thackaringa is potentially much larger than previously thought. With 4.5km of known strike and width, the results support considerable down dip potential, uncovering significant targets. The newly discovered target south of Pyrite Hill is also a major surprise. Cobalt Blue is highly encouraged by these results, supportive of a world class, long life operation."

Major Geophysical Survey

During September, a major heliborne electromagnetic ('EM') survey (VTEM-Max) was completed at Thackaringa, 23km south-west of Broken Hill. The survey covered the entire project area (63km²) at a nominal 100m line spacing and identified several strong EM responses. The Thackaringa Cobalt Pyrite deposits currently comprise 54.9Mt at 910ppm cobalt, 9.56% sulphur & 10.19% iron (as released 5 June 2017 at a 500ppm cobalt cut-off).

Multiple targets were identified as extensions of, or nearby to, known Thackaringa Cobalt Pyrite deposits, with the survey also successfully 'fingerprinting' known mineralisation (ie: calibrating EM signatures with known drilling results). This calibration provides improved confidence in overall results, allowing prioritisation of targets based on similar signatures to known mineralisation. Four high potential areas were identified as T1 to T4.

A target occurring as a nearby extension of the Railway deposit forms an immediate high value focus (T1), backed by existing drilling data. This target appears to reflect the folded nature of the Cobalt Pyrite mineralisation and has resulted in significant thickening.

Additional targets currently being investigated include:

- **T2** – A deep target identified along strike from the Railway deposit and coincident with an anomaly defined by historical Induced Polarisation ('IP'). This target is an extension of the Railway deposit is expected to form part of future exploration programs.

- **T3** – A series of targets parallel to the main Big Hill - Railway trend.
- **T4** – A large, deep target identified approximately 1.5km south of Pyrite Hill. This response occurs within the strike extension known to host the Pyrite Hill deposit. This signature is indicative of a significant fourth, to date unknown, target at Thackaringa.

The Thackaringa deposits are currently subject to a significant drilling campaign comprising approximately 13,500m. The campaign targets confirmation of geological continuity to support improved Mineral Resource classification. The revised Mineral Resource estimate will underpin Ore Reserve estimation to be completed during the Pre-feasibility study.

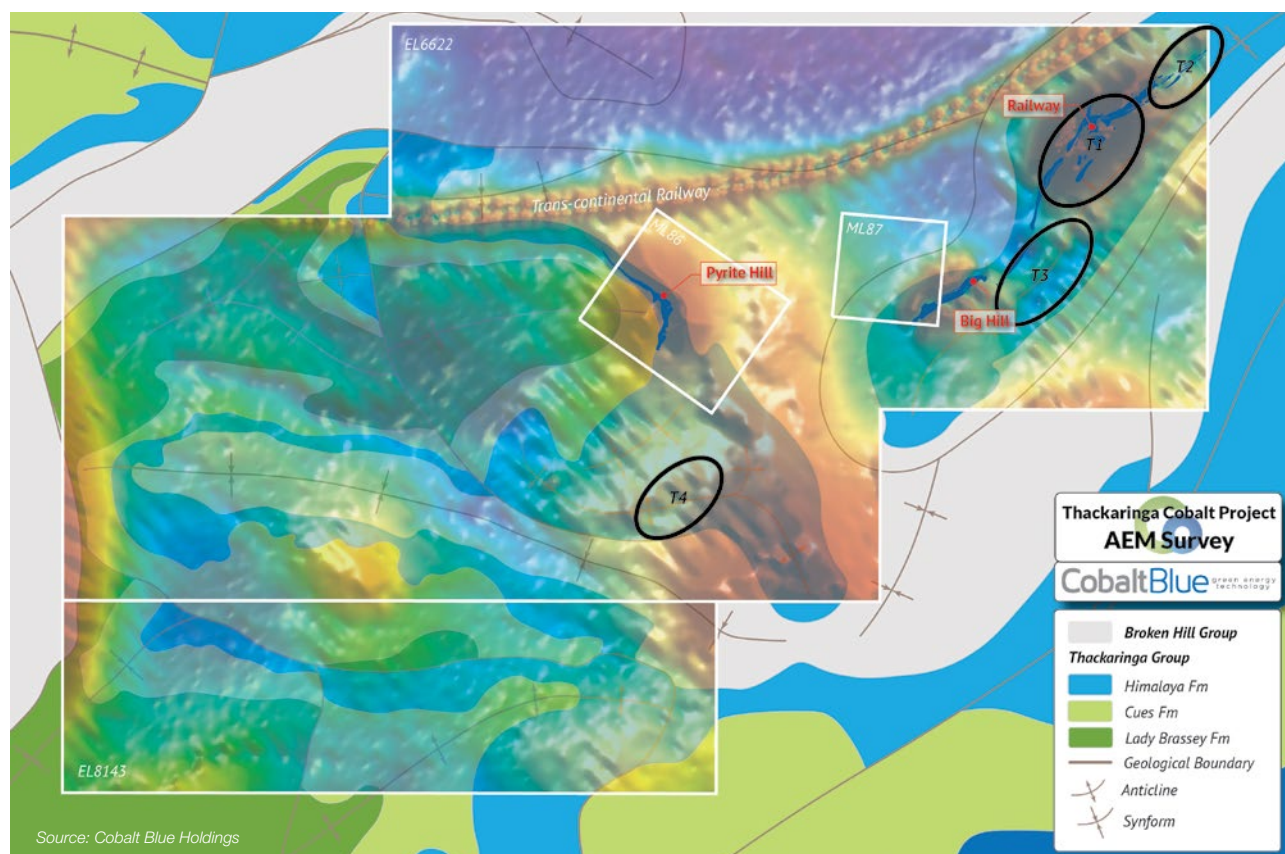
A dedicated geotechnical drilling program also nears completion with results to inform detailed pit optimisation and mine planning. Initial results from current drilling are expected shortly.

Survey Details

The helicopter borne VTEM-Max survey was flown on 100m spaced northwest-southeast orientated flight lines perpendicular to the predominant geological strike. The survey has delivered high quality data which will be synthesised with regional datasets for the development of a tenement scale geological model.

In addition to identifying potential exploration targets the survey has provided confidence for current engineering work to target areas that may host future infrastructure for Thackaringa operations. Encouragingly, an area broadly at a mid-point of the three known deposits and adjacent to the railway line, appears supportive of a potential footprint to support an ore/refined product pad and future refinery.

Figure 1: Thackaringa electromagnetic survey illustrating VTEM mid-time responses as broadly classified by regional stratigraphic context



Pre-Feasibility Study (PFS) metallurgical testwork continues.

Thackaringa ore is essentially 20% pyrite (sulphide) mixed with 80% quartz/feldspar. The recent breakthrough (26 October 2017) in using simple and low-cost gravity separation techniques (concentrate) takes advantage of the difference in weight of sulphide (hosting the cobalt) versus quartz/feldspar.

Figure 2: Thackaringa Processing – mine to battery-ready product

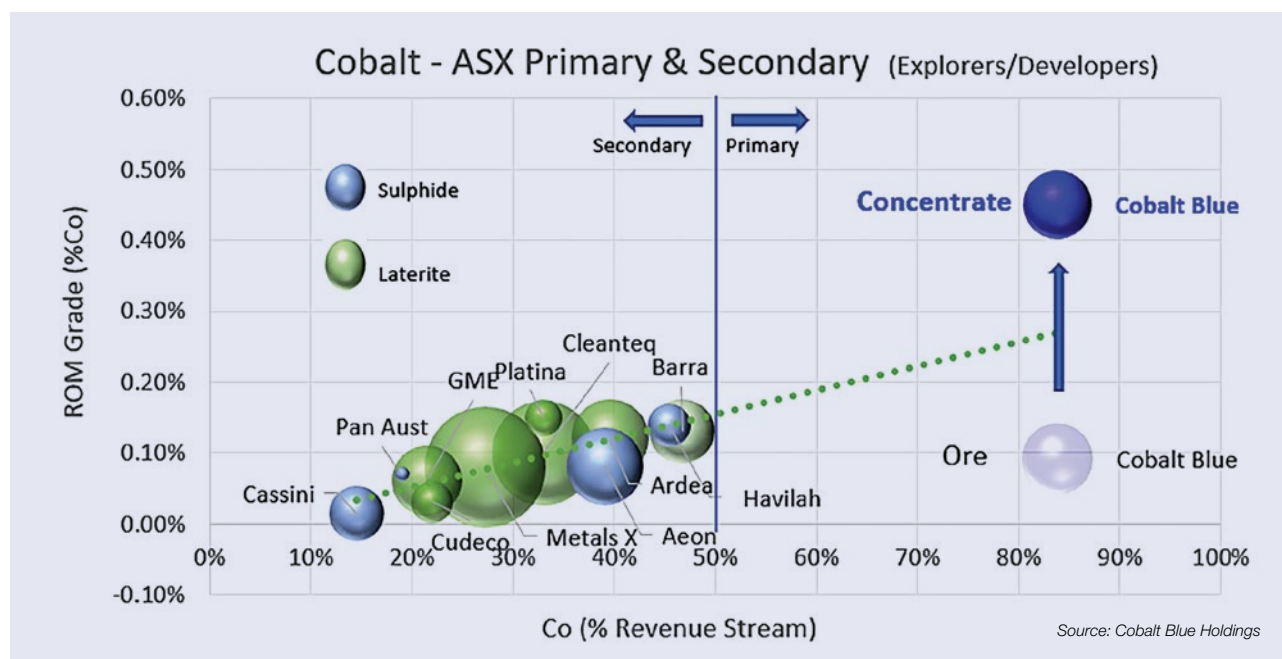


Source: Cobalt Blue Holdings

The heavy sulphide separates easily. COB therefore only needs to process 20% of mined ore (sulphide) in a refinery. For laterite projects, such simple upgrading is not available and they need to process the entire ore mass through the refinery, an expensive operation consuming large quantities of acid and typically needing strong by-product credits from nickel to be profitable.

While open-pit mines will have similar mining costs per tonne of ore, Thackaringa has a clear advantage over its Australian laterite peers, because it can upgrade the low-grade ore into a concentrate, prior to incurring the high per tonne costs associated with refining. This is summarised in the following graph which compares ore grades from Australian explorers/developers. Most of the laterite deposits will need to refine the ore at 0.1–0.2%, whereas Thackaringa will be refining concentrate at 0.4–0.5% cobalt.

Figure 3: Simple gravity separation supports high grade refinery concentrate



Our next update for metallurgical testwork is due early December, focussed on Calcine and Leach processing steps. Full process details are available on Cobalt Blue's website (www.cobaltblueholdings.com).

Thackaringa Project timetable

Results to date continue to justify proceeding further along the pathway towards commercial development of the Thackaringa Cobalt Project. The overall company timeline is shown below.

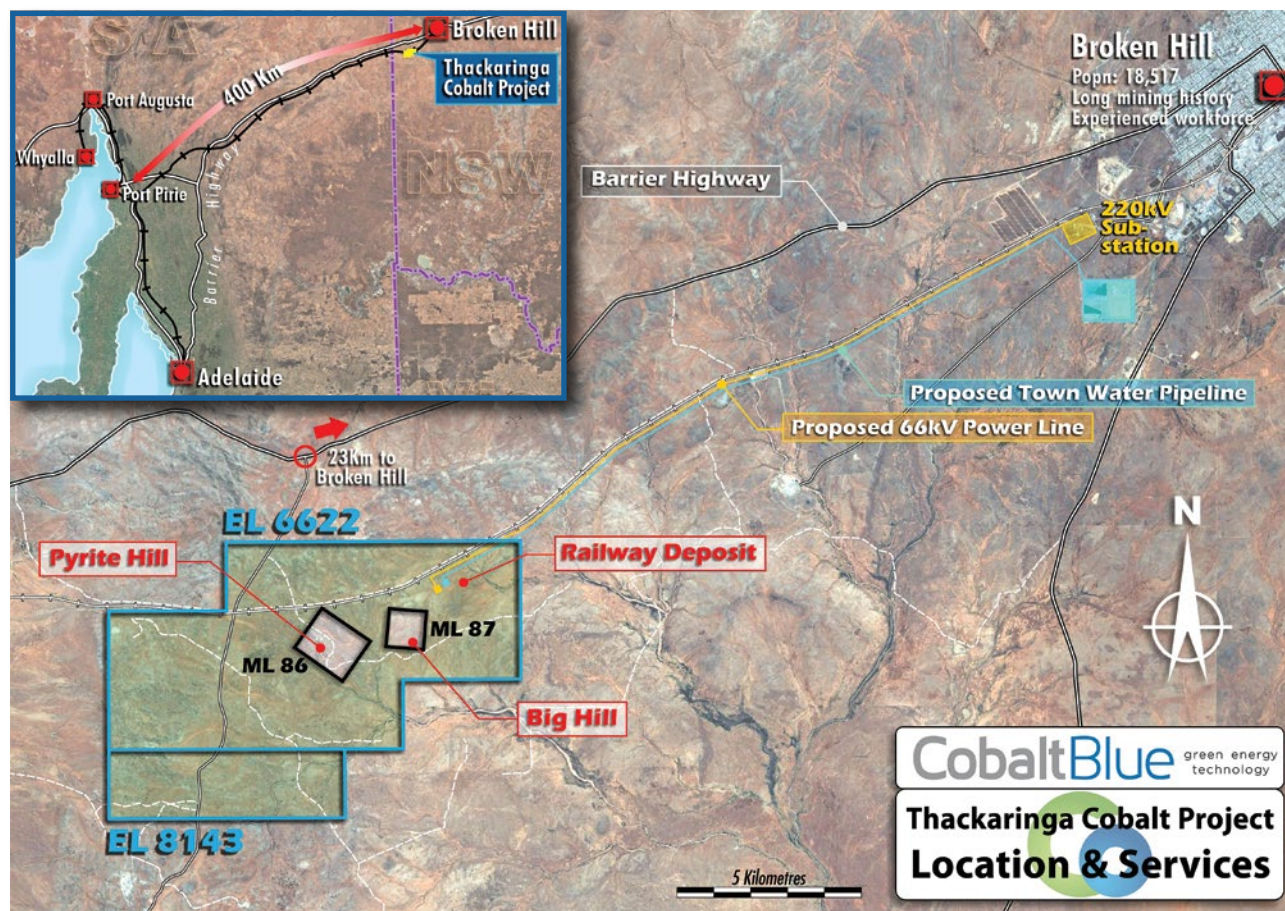
Figure 4: Thackaringa Cobalt Project Timeline

Aug 2016 – Feb 2017	1 April 2018	30 June 2018	30 June 2019	
Complete	Stage One	Stage Two	Stage Three	Stage Four
<ul style="list-style-type: none"> Cobalt Blue formed JV & Farm-in JORC 2012 upgrade Cobalt Blue listed 	<p>A\$2.0m expenditure in the ground delivered.</p> <p>Delivered:</p> <ul style="list-style-type: none"> Inferred Resource Upgrade Scoping Study <p>Deliver:</p> <ul style="list-style-type: none"> Indicated Resource Upgrade Aerial Geophysical Program <p>Target Date: 1 April 2018</p>	<p>A\$2.5m expenditure in ground – Indicated Resource Target</p> <p>Deliver: Preliminary Feasibility Study</p> <p>Target Date: 30 June 2018</p>	<p>A\$5.0m expenditure in ground – Measured Resource + Reserves Target</p> <p>Deliver: Bankable Feasibility Study + Project Approvals</p> <p>Target Date: 30 June 2019</p>	<p>Decision to Mine</p> <p>Project Finance</p>

Source: Cobalt Blue Holdings

The Thackaringa Cobalt Project site and potential services are shown below. The site is situated close to Broken Hill, and is well connected to existing transport routes including the Barrier Highway and the Intercontinental Railway. Availability of water and power supplies further support positive project economics.

Figure 5: Thackaringa Cobalt Project – Location and Potential Services



Source: Cobalt Blue Holdings

Cobalt Blue Background

Cobalt Blue ('COB') is an exploration company focussed on green energy technology and strategic development to upgrade its mineral resource at the Thackaringa Cobalt Project in New South Wales from Inferred to Indicated status. This strategic metal is in strong demand for new generation batteries, particularly lithium-ion batteries now being widely used in clean energy systems.

COB is undertaking exploration and development programs on the Thackaringa Cobalt Project pursuant to a farm-in joint venture agreement entered into with Broken Hill Prospecting Limited ('BPL'). Subject to the achievement of milestones, COB will be entitled to acquire 100% of the Thackaringa Cobalt Project.

The Thackaringa Project, 23 km west of Broken Hill and 400km by rail from Port Pirie consists of four granted tenements (EL6622, EL8143, ML86 and ML87) with total area of 63km². The main targets for exploration are well known and document large-tonnage cobalt-bearing pyrite deposits. The project area is under-explored, with the vast majority of historical exploration directed at or around the outcropping pyritic cobalt deposits at Pyrite Hill and Big Hill.

Potential to extend the Mineral Resource at Pyrite Hill, Big Hill, Railway and the other prospects is high. Numerous other prospects within COB's tenement package are at an early stage and under-explored.

Looking forward, we would like our shareholders to keep in touch with COB updates and related news items, which we will post on our website, the ASX announcements platform, as well as social media such as Facebook (f) and LinkedIn (in). Please don't hesitate to join the 'COB friends' on social media and also to join our newsletter mailing list at our website.



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Competent Person's Statement

The information in this report that relates to exploration results, Mineral Resources and Targets is based on information compiled by Mr Anthony Johnston, BSc (Hons), who is a Member of the Australian Institute of Mining and Metallurgy and who is a non-executive director of Cobalt Blue Holdings Limited, the Chief Executive Officer of Broken Hill Prospecting Limited. Mr Johnston has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 & 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Johnston consents to the inclusion in the announcement of the matters based on his information in the form and context that the information appears.

Previously Released Information

This ASX announcement refers to information extracted from the following report, which is available for viewing on COB's website <http://www.cobaltblueholdings.com>

- 26 October 2017: Bulk Metallurgical Testwork – Strong Concentration Results
- 27 September 2017: CEO's Letter to Shareholders – September 2017
- 12 July 2017: Scoping Study update – Strong Potential for Commercialisation after Processing Testwork
- 5 June 2017: Significant resource upgrade for the Thackaringa Cobalt Project
- 25 May 2017: Stage One Drilling Program delivers robust results – resource upgrade to follow
- 4 May 2017: 2017 Update – Strong Drilling Results Continue
- 27 March 2017: Assays confirm Thackaringa as a Significant Cobalt-Pyrite Project

COB confirms it is not aware of any new information or data that materially affects the information included in the original market announcement, and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. COB confirms that the form and context in which the Competent Person's findings presented have not been materially modified from the original market announcement.

Appendix – JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

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

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. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.*

The heliborne electromagnetic ('EM') survey (VTEM-Max™) maps variations in ground conductivity. This technique is well established for mineral exploration applications.

No determination of mineralisation has been made from survey results except by correlation to defined mineral deposits (Thackaringa cobalt-pyrite deposits).

Drilling techniques

- *Drill type (e.g. core, reverse circulation, 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).*

No drilling was undertaken.

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 sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*

No drilling was undertaken.

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.*

No drilling or logging was undertaken.

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.*

No sampling was undertaken.

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.*

No sampling or assaying was undertaken.

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.*

No sampling or assaying was undertaken.

During survey completion all digital data was reviewed on a daily basis for quality and completeness. All acquired survey data was merged into a Geosoft Montaj database and subject to digital processing to remove spheric events and further filtered to reduce any system noise. Following the filtering process, base level adjustments were made to the EM profile data, as required.

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.*

During survey completion a GPS navigation system utilising a Novatel GPS receiver provided in-flight navigation control. This system determines the absolute position of the helicopter in three dimensions with as many as 11 GPS satellites monitored at any one time. This is deemed to provide an in-flight accuracy up to 3 meters.

A radar altimeter system records the ground clearance to an accuracy of approximately 1 metre.

All data is presented in GDA94/MGA zone 54 grid system.

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.*

The heliborne electromagnetic ('EM') survey (VTEM-Max) was completed on 100 metre line spacing deemed suitable for the geological terrain and targeted mineralisation styles. The survey covered the entire project area inclusive of EL6622, EL8143, ML86 and ML87 for a total of 633-line kilometres.

No sampling or sample 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.*

The heliborne electromagnetic ('EM') survey (VTEM-Max) was completed on northwest-southeast (135 – 315) orientated flight lines perpendicular to the predominant geological strike.

Sample security

- *The measures taken to ensure sample security.*

No sampling was undertaken.

Audits or reviews

- *The results of any audits or reviews of sampling techniques and data.*

No audits have been undertaken.

Section 2 Reporting of Exploration Results

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

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 Thackaringa Cobalt project is located approximately 25 kilometres west-southwest of Broken Hill and comprises four tenements with a total area of 63 km²:

Tenement	Grant Date	Expiry Date
EL6622	30/08/2006	30/08/2020
EL8143	26/07/2013	26/07/2020
ML86	05/11/1975	04/11/2017
ML87	05/11/1975	04/11/2017

The project tenure is subject to a Farm-In agreement between Cobalt Blue Holdings Limited (COB) and Broken Hill Prospecting Limited (BPL). The nature of this agreement is detailed in the COB Replacement Prospectus (as released 4 January 2017).

The nearest residence (Thackaringa Station) is located approximately three kilometres west of EL6622.

EL6622 is transected by the Transcontinental Railway; the Barrier Highway is located the north of the licence boundaries.

The majority of the project tenure is covered by Western Lands Lease which is considered to extinguish native title interest. However, Native Title Determination NC97/32 (Barkandji Traditional Owners 8) is current over the area and may be relevant to Crown Land parcels (e.g. public roads) within the project area.

The project tenure is more than 90 kilometres from the nearest National Park and or Wilderness Area (Kinchega National Park) and approximately 20 kilometres south of the nearest Water Supply Reserve (Umberumberka Reservoir Water Supply Reserve).

The Company is not aware of any impediments to obtaining a licence to operate in the area.

Exploration done by other parties

- *Acknowledgment and appraisal of exploration by other parties.*

A detailed and complete record of all exploration activities undertaken prior to the BPL 2016 drilling program is appended to the JORC Table 1 which forms part of the Cobalt Blue Prospectus Document, available on the COB website.

Geology

- *Deposit type, geological setting and style of mineralisation.*

Regional Geological Setting

- The Thackaringa project is located in a deformed and metamorphosed Proterozoic supracrustal succession named the Willyama Supergroup, which crops out as several inliers in western New South Wales, including the Broken Hill Block (Willis, et al., 1982).
- Exploration by BPL Limited has been focused on the discovery of cobaltiferous pyrite deposits and Broken Hill type base-metal mineralisation both of which are known from historical exploration in the district.
- The project area covers portions of the Broken Hill and Thackaringa group successions which host the majority of mineralisation in the region, including the Broken Hill base-metal deposit. The Sundown Group suite is also present. The extensive sequence of quartz-albite-plagioclase rock that hosts the cobaltiferous pyrite mineralisation is interpreted as belonging to the Himalaya Formation, which is stratigraphically at the top of the Thackaringa Group.

Local Geological Setting

- The oldest rocks in the region belong to the Curnamona Craton which outcrops on the Broken Hill and Euriowie blocks.
- The overlying Proterozoic rocks have been broadly subdivided into three major groupings, of which the oldest groups are the highly deformed metasediments and igneous derived rocks of the Thackaringa and Broken Hill groups. They comprise a major part of the Willyama Supergroup and host the giant Broken Hill massive Pb-Zn-Ag sulphide ore body. EL6622 is within the Broken Hill block of the Curnamona Craton.

Mineralisation Style

- The Thackaringa Mineral deposits (Pyrite Hill, Big Hill and Railway) are characterised by large tonnage cobaltiferous-pyrite mineralisation hosted within siliceous albitic gneisses and schists of the Himalaya Formation
- Cobalt mineralisation exists within stratabound pyritic horizons where cobalt is present within the pyrite lattice. Mineralogical studies have indicated the majority of cobalt (~85%) is found in solid solution with primary pyrite (Henley 1998)).
- A strong correlation between pyrite content and cobalt grade is observed
- The regional geological setting indicates additional mineralisation targets including:
 - Stratiform Broken Hill Type (BHT) Copper-Lead-Zinc-Silver deposits
 - Copper-rich BHT deposits
 - Stratiform to stratabound Copper-Cobalt-Gold deposits
 - Epigenetic Gold and Base metal deposits

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:
 - 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

Drilling information is not regarded as material to the understanding of geophysical results presented.

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.

No drilling was undertaken.

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 drillhole 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').

No drilling was undertaken.

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.

Appropriate maps are presented in the accompanying ASX 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.

No drilling or sampling was undertaken.

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.

The results presented herein are based on field corrected preliminary EM data interpreted in context of the regional geological setting. The survey forms part of a regional geological mapping campaign which will support the development of a tenement scale 3D geological model.

The survey details are summarised below:

System	VTEM-Max
Transmitter	
Loop Diameter	35 m
Loop Area	962 m ²
Loop Turns	4
Effective TX loop area	3,847 m ²
Base Frequency	25 Hz
Typical Current	180 A
Pulse Width	7 ms
EM sensor mean terrain clearance	35–45m
Receiver	
Configuration	In-loop z and x components

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.

The nature and scale of planned further work will be determined following the completion of final data modelling.