

Market Announcement



11 Jul 2017

Highlights

Cobalt Blue Holdings Ltd A Green Energy Exploration Company



ASX Code:

COB

Commodity Exposure:

Cobalt & Sulphur

Directors & Management:

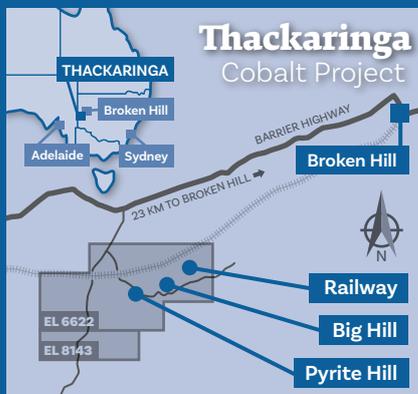
Robert Biancardi	Non-Exec Chairman
Hugh Keller	Non-Exec Director
Trangie Johnston	Non-Exec Director
Joe Kaderavek	CEO & Exec Director
Ian Morgan	Company Secretary

Capital Structure:

Ordinary Shares at 7/07/2017:	95m
Options (ASX Code: COBO):	21.2m
Market Cap (undiluted):	\$15m

Share Price:

Share Price at 7/07/2017:	\$0.16
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Scoping Study update – Strong Potential for Commercialisation after Processing Testwork

- Scoping Study completed. Results indicate a technically and economically justifiable project warranting progression to Pre-Feasibility Study. Results supportive of Cobalt Blue's aspirational target of becoming "a long-life top 10 cobalt miner".
- Thackaringa retains strong exploration upside with resource size supporting long-life operations. Broken Hill (23km away) provides clear infrastructure advantages with people, power, water, road and rail availability.
- A range of cobalt processing routes were examined during testwork, with roasting and pyrolysis in particular displaying attractive technical and cost efficiencies. Both processes produced high levels of cobalt recovery and will be evaluated in more detail in future studies.

Scoping Study Update

Cobalt Blue Holdings Limited (ASX: COB) is pleased to advise that it has completed a Scoping Study ("Study") based on the Inferred and Indicated Mineral Resource at its Thackaringa Cobalt Project ("the Project"), located approximately 23 km south west of Broken Hill, NSW. The Study referred to the Pyrite Hill, Big Hill and Railway deposits. The Study was a key milestone of our joint venture with Broken Hill Prospecting Limited (ASX:BPL).

Cautionary Statement

The Scoping Study is a preliminary technical and economic study of the potential viability of the Thackaringa Project required to reach a decision to process with more definitive studies. It is based on low level technical and economic assessments that are not sufficient to support the estimation of ore reserves. Further exploration and evaluation work and appropriate studies are required before Cobalt Blue will be in a position to estimate any ore reserves or to provide any assurance of an economic development case.

The Scoping Study was based on material assumptions including assumptions about the availability of funding. While Cobalt Blue considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved.

To achieve the range of proposed feasibility studies and potential mine development outcomes indicated in the Scoping Study, additional funding will likely be required.

Investors should note that there is no certainty that Cobalt Blue will be able to raise funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Cobalt Blue's existing shares. It is also possible that Cobalt Blue could pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of the project. If it does, this could materially reduce Cobalt Blue's proportionate ownership of the project.

Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.

In accordance with ASX Interim Guidance: Reporting Scoping Studies, the ASX Listing Rules and ASIC Information Sheet 214, Cobalt Blue understands that the portion of inferred mineral resource currently defined is a determining factor in project viability and features as a significant proportion early in the mine plan, preventing reporting of a production target or forecast financial information based on a production target.

The Scoping Study results were positive and justify progression to a Pre-Feasibility Study. BPL Chairman, Creagh O'Connor commented:

"We have long believed that the cobalt resource at Thackaringa has considerable potential, and these scoping study results provide major impetus towards proving that to be true. We are committed to pursuing the plans for development of the project, and working with Cobalt Blue to achieve that end."

Shareholders can expect a further update on strategy from the CEO in the near future.

Geology and Resources

Stage One activities have been focused on the three known deposits. Resource definition work will continue during Stage Two of the JV, targeting conversion of exploration targets to Mineral Resources. A key requirement of Stage Two is to define a sufficient quantity of Indicated Resource to support the optimal mining throughput defined in the Scoping Study.

Cobalt Blue has delivered 7,956.9m of Diamond (22 holes) and Reverse Circulation (38 holes) drilling over 2016 and YTD 2017. The program was the basis for a substantial resource upgrade (5 June 2017) and the preparation of a comprehensive Scoping Study. The resource estimate was completed using a 500ppm cobalt cut off and is summarised in Table One below. A 54.9Mt Mineral Resource (consisting of 48.4Mt Inferred Resource and 6.5Mt Indicated Resource), reported in compliance with JORC (2012), was estimated with an average grade of 910ppm, 10.19% iron and 9.56% sulphur. Compared to the previous mineral resource, the new resource contains 66% more tonnes and 81% more cobalt

The updated Total Mineral Resource estimate at Thackaringa is apportioned to the three main deposits as follows (minor rounding errors may have occurred in the compilation of this table):

Table One – **Thackaringa Mineral Resource Estimate**

Category	Mt	Co ppm	Fe %	S %	Pyrite %	Co Tonnes	Py Mt	Density
Thackaringa total (at a 500ppm Co cut-off)								
Indicated	6.5	951	10.54	9.93	18.63	6,182	1.21	2.86
Inferred	48.4	905	10.14	9.51	17.83	43,804	8.63	2.85
Total	54.9	910	10.19	9.56	17.92	49,986	9.84	2.85

(Pyrite grade generated stoichiometrically from sulphur assay using formula Pyrite = (sulphur/53.333) * 100)

Additional resource potential has been defined through the identification of the following exploration targets:

Table Two – **Thackaringa Exploration Targets**

Prospect	Mt	Co ppm	Fe %	S %	Pyrite %
Pyrite Hill	5 to 7	850 to 1050	10 to 13	9.5 to 11.5	18 to 22
Big Hill	2.5 to 3.5	650 to 750	6.5 to 7.5	7 to 8	11.5 to 13.5
Railway	11.5 to 15.5	850 to 950	9 to 10	8.5 to 9.5	16 to 18
Total	18 to 26	800 to 1000	8 to 12	8.5 to 10.5	16 to 20

The potential quantity and grade of these targets is conceptual in nature. There has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in determination of a Mineral Resource.

These exploration targets were constrained at depth to approximately 250–300m below surface where data density is limited. It must be considered there is currently no known geological constraint that would preclude potential extensions below the existing interpretation however the viability of such mineralisation as an open pit target is unlikely (Figures One and Two show oblique views of the Railway and Pyrite Hill deposits).

Figure One – Oblique view of the Railway deposit looking northwest showing the distribution of classified Mineral Resources (dark blue blocks) (at a 500 ppm Co cut-off) and exploration target (green blocks).

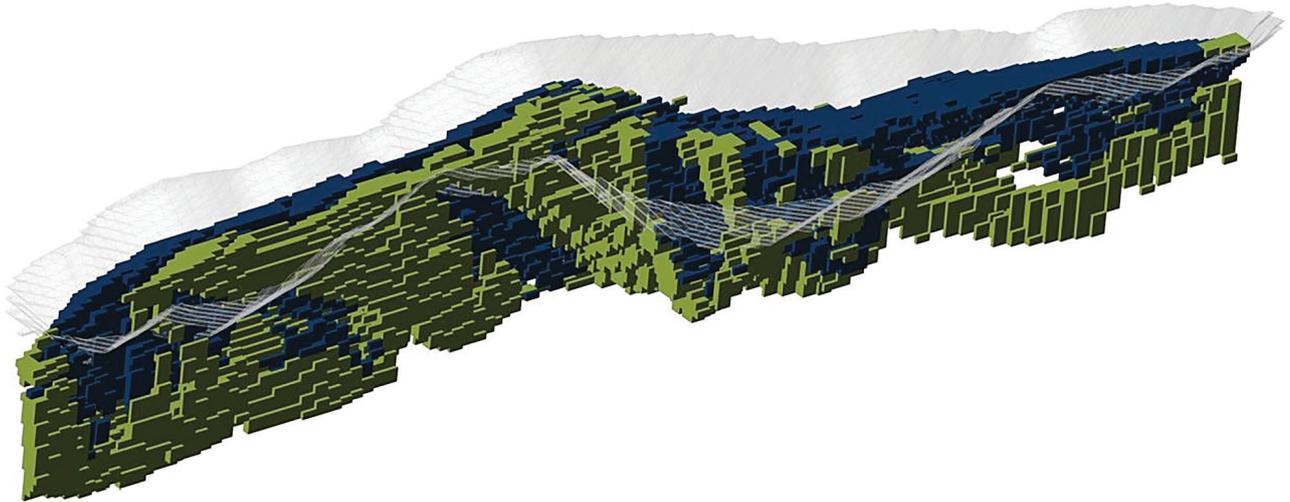
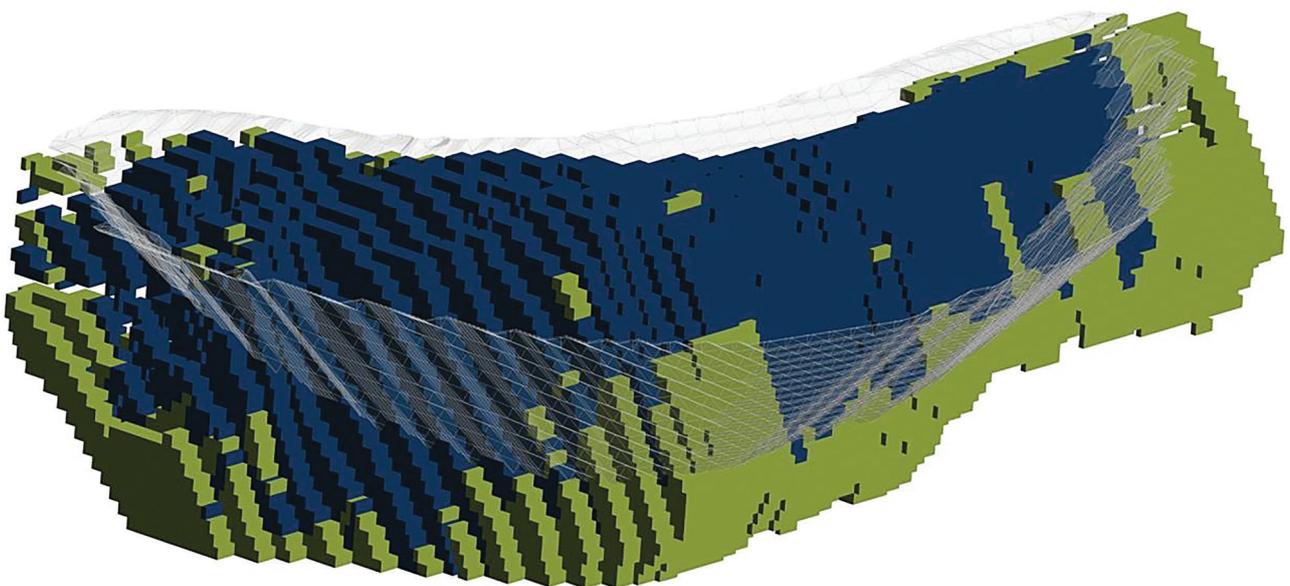


Figure Two – Oblique view of the Pyrite Hill deposit looking southwest showing the distribution of classified Mineral Resources (dark blue blocks) (at a 500 ppm Co cut-off) and exploration target (green blocks).



Mining Update

Pit optimisations were performed for Big Hill, Pyrite Hill and Railway deposits spanning a range of mine economics from smaller scale to a globally significant cobalt operation. Existing mineral resources are all open pit, with near surface resources supporting low strip ratio mining operations. The resource size supports long-life operations with the mining study confirming that low mining costs are possible due to low strip ratios present.

Processing Update

As a result of the Scoping Study, COB has identified a number of low operating cost options that simultaneously have the potential to generate revenue for cobalt, sulphur and iron products. These options will be investigated in larger scale bulk testing, as the project progresses into FY18.

In the Scoping Study, the approach has been to develop a new dataset from first principles. Subsequently, a more robust engineering, design and financial study was completed, relative to previously published studies on the Thackaringa deposits.

Ore processing was assessed into two separate components, namely:

1. Concentration of ore; followed by
2. Concentrate processing.

Concentration

Flotation of pyrite was straightforward, with only a bulk sulphide collector (Xanthate) required and a coarse grind size of 212microns. Flotation produced strong typical recoveries (91.5%) of cobalt. Gravity separation was also examined, using a much coarser crush size of 1180 microns, also displaying strong recoveries of (91.7%) cobalt.

An engineering study compared concentration of the cobalt from the ore using flotation and gravity separation techniques. From a capital and operating cost perspective, a combined gravity-flotation circuit was identified as the preferred option for further evaluation in future studies.

Additionally, the use of high speed X-ray sorting equipment was trialed to remove waste product prior to milling – this process will be subject to further bulk testing to assess the liberation of the minerals hosting cobalt from the crushed ore.

Concentrate Processing

The criteria for development of a viable processing flowsheet is listed in order of importance:

1. Unlocking cobalt from the pyrite lattice, so that the cobalt can be separated and recovered as a saleable product.
2. Treating the pyritic sulphur to convert it into saleable forms, or making it amenable for low-cost disposal by minimising the opportunity for generation of acid in long-term storage dumps.
3. Recovering iron oxide from the process for sale.

Concentrate processing trials examined five options, namely:

- a) Concentrate Pyrolysis (Decomposition) + Low Pressure Oxidation Leaching of the Calcine.
- b) Concentrate Roasting + Atmospheric Leaching of the Calcine.
- c) Conventional High-temperature Pressure Oxidation Leaching (POX) of the Concentrate.
- d) Concentrate Roasting + Acid Production + Calcine Leaching.
- e) Atmospheric Leaching of the Concentrate.

Options A and C achieved the highest cobalt extractions into the leach liquors of >95%. An engineering study compared the capital and operating costs of each of the options, and identified that Option A had the lowest costs. Further, Option A could potentially generate the highest revenues, as sulphur and iron could also be monetised along with the cobalt in this scenario.

The company is taking steps to protect the intellectual property developed in the Scoping Study. This is specifically in relation to Option A.

The process options evaluated in the Scoping Study are compared in the table below:

Table Three – **Processing options examined with attractiveness ranking**

Concentration Options	Rank	Products	Cobalt Recoveries
Gravity + Cleaner Float	1	Co-FeS ₂ con	91.70%
Flotation	2	Co-FeS ₂ con	91.49%

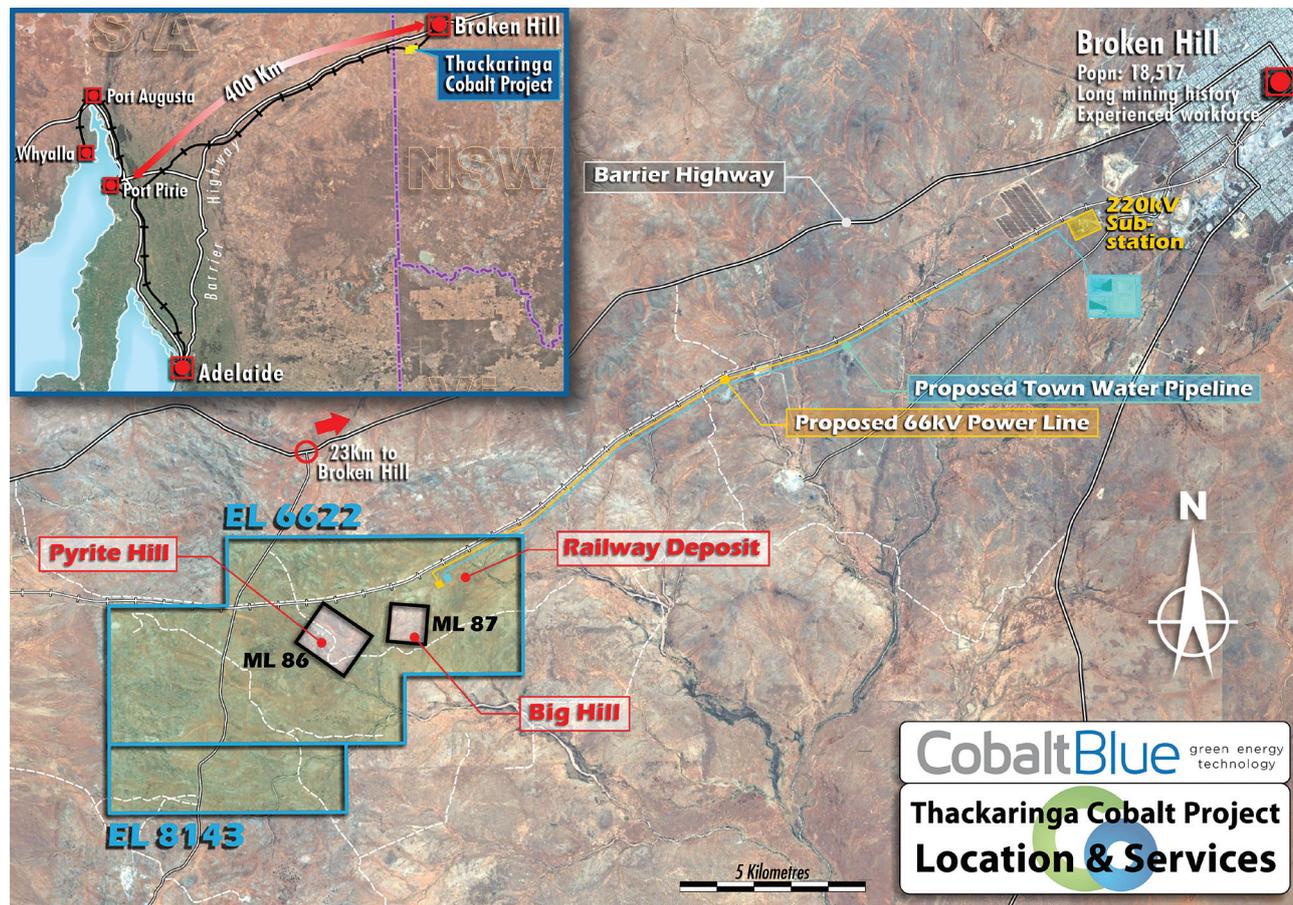
Concentrate Processing Options	Rank	Payable Products
Pyrolysis + Low Pressure (POX)	1	Cobalt, Sulphur, Iron
Roasting + Leaching	=2	Cobalt, Iron
Pressure Oxidation (POX) Leaching	=2	Cobalt, Sulphur, Iron
Roasting + Leaching + Acid Plant	=4	Cobalt
Atmospheric Leaching	=4	Cobalt

The pyrolysis process, potentially allowing monetisation of cobalt, sulphur and iron, represents the most desirable metallurgical process going into the Preliminary Feasibility Study, being undertaken as part of Stage Two of the Project. Notwithstanding early positive indications from the Scoping Study, all processes will be further examined in more detail before a preferred option is selected.

Next Steps

The Scoping Study has confirmed a potentially viable project. These results provide justification for Cobalt Blue to proceed further along the pathway towards development. In parallel with further development of the Thackaringa resource, the next priority is to prove, on a more rigorous and larger scale, the technical and commercial viability of key processing routes in order for the Company to select the preferred process for commercialisation of the deposits.

Figure Three – Thackaringa Cobalt Project – Location and Potential Services



Cobalt Blue is focussed on bringing the Project into development with an accelerated feasibility program aiming to deliver a Bankable Feasibility Study, along with requisite approvals, by mid 2019. The Study represents a milestone in our aim to develop the Thackaringa Project, as shown in Figure Four below:

Figure Four – Thackaringa 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>

Cobalt Blue Background

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

COB has entered into a farm-in joint venture agreement with Broken Hill Prospecting Limited (“BPL”) in which COB acquired an initial 51% interest in the Thackaringa Cobalt Project. COB will undertake exploration and development programs on the Thackaringa Cobalt Project and, subject to the achievement of milestones, will 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 target for exploration is well known and documented 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. A total Inferred Mineral Resource of 54.9Mt at 910ppm cobalt (500ppm Co cut-off) has previously been estimated at Thackaringa Cobalt Project (5 June 2017).

Numerous other prospects within COB’s tenement package are 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 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 and the Technical Manager of the Joint Venture. 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.

Released Information

This ASX announcement refers to information extracted from the following reports, which are available for viewing on COB’s website www.cobaltblueholdings.com.

- **03 July 2017:** Thackaringa Cobalt Project – Major Geophysical Survey – Positive news
- **05 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
- **31 January 2017:** Replacement Prospectus dated 3 January 2017 (Replacement Prospectus) – supplemented by the supplementary prospectus dated 10 January 2017 (Supplementary Prospectus)

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.