

24 January 2017

Quarterly Activities Report – December 2016

Clean TeQ Holdings Limited
ACN: 127 457 916
(ASX: CLQ)

Corporate Information:

478.2M ordinary shares
48.6M unlisted options
4.9M performance rights
\$15.47M cash at bank

Directors:

Co-Chairman
Robert Friedland

Co-Chairman and CEO
Sam Riggall

Executive Director
Peter Voigt

Non-Executive Director
Eric Finlayson

Non-Executive Director
Roger Harley

Non-Executive Director
Ian Knight

Non-Executive Director
Mike Spreadborough

Company Secretary:
Melanie Leydin

Contact Details:

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Highlights

- **Syerston Nickel / Cobalt Definitive Feasibility Study progressing as planned**
- **Nickel/Cobalt sulphate offtake discussions ongoing**
- **\$15 million placement completed to fund Syerston Nickel and Cobalt DFS**
- **Key appointments to board and senior management to bolster project development and operational capability**

Clean TeQ Overview

Our vision is to create a globally significant business which is focused on providing specialty materials and clean solutions to a range of industries using our proprietary Clean-iX[®] continuous ion exchange technology.

Metals Recovery – Clean TeQ owns the Syerston Nickel, Cobalt and Scandium Project in NSW. Syerston's unique mineral resource, when combined with Clean TeQ's proprietary ion-exchange extraction and purification processing technology, provides Clean TeQ with the opportunity to become a leading global supplier of nickel and cobalt sulphate to the lithium-ion battery industry, as well as providing scandium for production of the next generation of lightweight aluminum alloys for key transportation markets.

Water Purification – Clean TeQ's Continuous Ionic Filtration & Exchange (CIF[®]) technology provides the basis for cost effective water treatment solutions to the power, mining, oil and gas and municipal industries. Our technologies are designed to cope with the most demanding waters to provide best in class performance in water recovery and operability.

Syerston Nickel Cobalt Scandium Project

During the quarter Clean TeQ completed a Pre-Feasibility Study (**PFS**) to assess the economics of a large scale operation at Syerston to produce nickel sulphate and cobalt sulphate products specifically targeted at the fast-growing lithium ion battery (**LiB**) market as well as significant quantities of by-product scandium oxide. For the detailed results of the PFS see the ASX announcement of 5 October 2016:

<http://www.cleanteq.com/wp-content/uploads/2016/12/05Oct16-Syerston-Nickel-Cobalt-Pre-Feasibility-Study-Completed.pdf>

Given the favourable Project economics demonstrated by the PFS and the strong offtake demand that is currently being indicated by potential customers in the LiB sector, the Company has commenced a Definitive Feasibility Study (**DFS**) for the Project. The DFS will be used to assess the definitive economics of the Project for financing as well as providing the plan for the implementation of the Project.

As part of the DFS activities the Company re-commissioned its Resin-in-Pulp (**RiP®**) pilot plant at ALS Metallurgy in Perth (see Figure 1 below). The purpose of the pilot campaign was to generate samples of nickel and cobalt sulphate eluate solution for further testing to confirm the flow sheet design for the refinery section of the processing plant and to provide samples of nickel sulphate and cobalt sulphate for potential offtake customers.

Figure 1: Clean TeQ's Proprietary Resin-In-Pulp (cRiP) Pilot Plant



The pilot campaign successfully processed a bulk sample of approximately 20 tonnes of Syerston ore to produce a batch of high purity nickel and cobalt sulphate eluate solution (see Figure 2 below). This solution is currently being further refined into samples of high purity nickel sulphate and cobalt sulphate which will be sent to potential offtake customers in the first quarter of 2017 for product testing and qualification.

In parallel with the DFS, the Syerston Project team is undertaking an optimisation study which will investigate opportunities to add further value to the Project.

Figure 2: Clean TeQ Pilot Plant: Nickel/Cobalt Sulphate Solution



Figure 3: Pilot Plant: High Pressure Acid Leach Autoclave (horizontal cylinder at top of photo)



Figure 4: Clean TeQ Pilot Plant: Leached Pulp Neutralisation Circuit



Figure 5: Clean TeQ Pilot Plant: 'U-Column' Nickel/Cobalt Recovery System



The DFS is on schedule for completion in Q4 2017. The DFS team is gradually being built up to provide the breadth and depth of skill sets required to complete the DFS and prepare ultimately for the transition into construction and operations.

Recent senior appointments include:

Andrew Brice – Project Director (Interim). Andrew is an engineer with over 20 years' experience in the resources industry, predominantly in the development and delivery of major mining and infrastructure projects. Andrew has accumulated considerable project development and operational experience through the completion of a range of projects for companies such as Alcoa, Iluka Resources, BHP Billiton and Rio Tinto. Andrew will lead the various Syerston Project work streams, including the DFS and the optimisation study, on an interim basis while a formal search is undertaken for a permanent Project Director.

Julian Mizera – Definitive Feasibility Study Lead. Julian has over 30 years' experience across numerous areas in the resources industry including infrastructure, general mining and mineral processing, iron ore, alumina, nickel and gold from engineering roles through to senior project and operational management. Julian has worked for EPCM consultants such as Hatch and Worley Parsons as well as a number of resource companies including BHPB Billiton, Newcrest, Worsley, Sinosteel, API, Legacy Iron and Iron Ore Holdings.

Raimund (Rai) Dolinschek – Optimisation Study Lead. Rai has over 40 years' experience in the mining industry in Australia, South Africa and Indonesia, as well as project experience in other parts of the world. Rai is the principal of Redstone Enterprises – an independent consulting company specialising in the development of mining projects. Rai's experience includes a number of senior project development and operational roles for BP Coal, Rio Tinto, Kaiser Jamaica Bauxite Company and PT Kaltim Prima Coal.

Offtake Marketing

In recent months, Clean TeQ has met with numerous companies in the LiB cathode supply chain from traders and cathode makers through to electric vehicle manufacturers. The Company has received strong expressions of interest for offtake of the Syerston nickel and cobalt sulphate materials from a number of these parties.

The Company has entered into a number of non-binding offtake Memoranda of Understanding (**MoU**) representing a proportion of Syerston's anticipated production over the first five years of the mine life, with counterparties who are well established in the LiB supply chain. The MoU's define certain key terms of the offtake contracts including volumes, pricing structure and delivery terms. While the DFS is being progressed, offtake discussions remain ongoing with these parties, and others, with a view to committing the majority of Syerston production under binding off take agreements prior to the commencement of construction.

An on-going focus for the Company has also been to secure offtake contracts for scandium oxide, given the highly value accretive impact of producing scandium as a by-product to nickel and cobalt sulphate production.

During the quarter the Company signed a collaboration agreement with Airbus Group Innovations to assess the treatment and recycling of their proprietary Scalmalloy® aluminium-magnesium-scandium (AlMgSc) powder, used in additive manufacturing (3D printing) of aerospace components.

Figure 6: APWorks, a subsidiary of Airbus Group, has developed the Light Rider - a 3D printed Scalmalloy® (aluminium-magnesium-scandium alloy) electric motorbike which, weighing in at just 35 kg, is about 30% lighter than most conventional e-motorcycles. The Light Rider is capable of going from 0 to 80 km per hour in seconds and can travel close to 60 km between charges



The process of making 3D printing material involves the use of gas atomisation to convert the alloys into powders. The gas atomisation process inevitably produces some particles which are too fine or too coarse to be used in 3D printing. Currently, these undersize and oversize materials, containing highly valuable aluminium-scandium material, are being sent to waste, increasing the cost of the powder.

Scandium can be recovered through the processing system proposed at Syerston and recycled back into the supply chain, thus reducing the unit cost of production. The flow sheet proposed for the mine can extract and recover scandium at a fraction of the cost of purchasing new scandium. Lowering the cost of Scalmalloy® is important to promote its adoption for a wider range of applications in the aerospace industry.

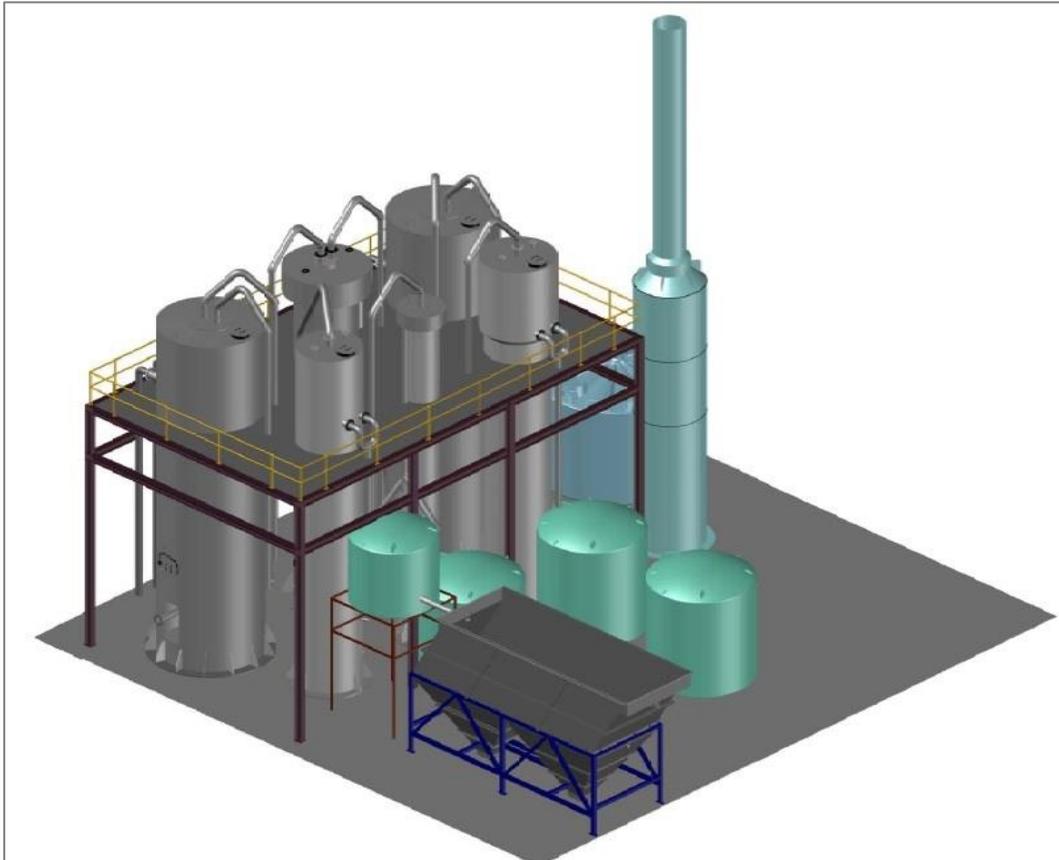
In a first test campaign, approximately 1 tonne of Scalmalloy® undersize powder will be processed at ALS Metallurgy in Perth (the location of Clean TeQ's pilot plant) with purification being carried out at Clean TeQ's facilities in Melbourne. Purified scandium oxide will then be returned to KBM Affilips, who will convert it into Scalmalloy® master alloy for re-use in Airbus' and AP Work's facilities in Germany.

Clean TeQ Water

The Clean TeQ Water Division continues to promote and demonstrate our Continuous Ion Exchange Technology (CIF®) with a particular emphasis on the Chinese water market, the largest and most rapidly growing water treatment in the world. Continuous Ion Exchange (CIF®) provides a water treatment solution to many Chinese industries including power, mining, oil and gas and municipal.

Clean TeQ has formed a Chinese incorporated joint venture (**JV Company**) with Jinzhong Hoyo Municipal Urban Investment & Construction Co., Ltd (**Hoyo**) to pursue water treatment opportunities in China's Shanxi Province utilising Clean TeQ's water purification technology.

Figure 7: Qixian Project water treatment plant design submitted for approval



The JV Company has been awarded an initial contract to build, own and operate a Clean TeQ CIF® water treatment plant to treat up to 13,000 tonnes of effluent per day for a 20 year period at a waste water treatment plant owned by Hoyo. The proposed project contract provides for the JV Company to be paid a service fee of 1RMB per tonne of water treated, subject to a minimum payment for 9,000 tonnes per day. Clean TeQ has actively pursued a build, own and operate business model, targeting generation of long term sustainable cashflows and favourable economic returns.

Design and engineering of the plant has been completed and the plans have been submitted to the Shanxi Urban & Rural Planning Design Institute for approval. The approval is expected to be received in the first quarter 2017, with procurement of materials and construction of the plant anticipated to commence shortly thereafter.

Conventional wastewater treatment plants in China are struggling to meet the new regulations on chemical oxygen demand (**COD**), nitrogen and phosphorus levels for surface discharge. The CIF® technology will be used as a tertiary treatment, removing COD, nitrogen and phosphorus which allows the plant to achieve surface discharge requirements. Successful demonstration of the CIF® technology and its relatively low cost, is anticipated to open up significant opportunities in the vast market for wastewater treatment plant upgrades.

During the quarter, and consistent with our strategy to focus on the high potential Chinese market, the Company recruited Willem Vriesendorp in the role of General Manager – Clean TeQ Water. Willem is based in China, has fluent Chinese language skills and has extensive experience in marketing and delivering innovative water purification technologies in the Chinese market. Willem brings with him a team of professionals who will prove invaluable in accelerating the deployment of Clean TeQ’s technology in China.

Corporate

During the quarter, Mr Michael Spreadborough was appointed to the Board as a Non-Executive Director. Mr Spreadborough is a mining engineer with extensive experience in the development and operation of mineral resources projects spanning a range of commodities including copper, gold, uranium, lead, zinc and iron ore.

Over the past 20 years Mr Spreadborough has held senior executive roles with a number of mining companies including Chief Operating Officer of Sandfire Resources and Inova Resources Ltd (formerly Ivanhoe Australia), General Manager – Coastal Operations for Rio Tinto and General Manager – Mining for WMC and later Vice President – Mining for BHP Billiton at the world-class Olympic Dam mine in South Australia.

During the quarter, Clean TeQ placed 33,333,333 new shares at an issue price of \$0.39 per share to raise proceeds of \$13.0 million. The placement was made to AustralianSuper, a large Australian institutional investor.

An additional placement of 5,128,205 new shares at an issue price of \$0.39 per share was also made to a number of institutional investors who are existing shareholders to raise additional proceeds of \$2.0 million.

The subscription proceeds will be used to complete the Syerston Project DFS and additional general working capital. While the DFS is being completed over the next 12 months the Company will be undertaking a range of activities to secure the financing required for the development of the Project, including progressing a range of options in relation to offtake finance, project level financing and debt financing.

As at 31 December 2016 available cash at bank was \$15.47 million with \$0.2 million additional cash on deposit securing performance guarantees.

For more information about Clean TeQ contact:

Sam Riggall, Executive Chairman or Ben Stockdale, CFO +61 3 9797 6700

About Clean TeQ Holdings Limited (ASX: CLQ) – Based in Melbourne, Clean TeQ, using its proprietary Clean-iX® continuous ion exchange technology, is a leader in metals recovery and industrial water treatment.

About the Syerston Project – Clean TeQ is the 100% owner of the Syerston Project, located in New South Wales. The Syerston Project is one of the largest and highest grade scandium deposits in the world and one of the highest grade and largest nickel and cobalt deposit outside of Africa.

For more information about Clean TeQ please visit the Company’s website www.cleanteq.com.

This release may contain forward-looking statements. The actual results could differ materially from a conclusion, forecast or projection in the forward-looking information. Certain material factors or assumptions were applied in drawing a conclusion or making a forecast or projection as reflected in the forward-looking information.

Appendix 4C

Quarterly report for entities subject to Listing Rule 4.7B

Introduced 31/03/00 Amended 30/09/01, 24/10/05, 17/12/10, 01/09/16

Name of entity

CLEAN TEQ HOLDINGS LIMITED

ABN

34 127 457 916

Quarter ended ("current quarter")

December 2016

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	312	445
1.2 Payments for		
(a) research and development	(87)	(388)
(b) product manufacturing and operating costs	-	(335)
(c) advertising and marketing	(151)	(223)
(d) leased assets	(27)	(81)
(e) staff costs	(779)	(1,532)
(f) administration and corporate costs	(93)	(366)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	5	12
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (provide details if material)	-	-
1.9 Net cash from / (used in) operating activities	(820)	(2,467)
2. Cash flows from investing activities		
2.1 Payments to acquire:		
(a) property, plant and equipment	(19)	(86)
(b) businesses (see item 10)	-	-
(c) investments	(265)	(529)

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
(d) intellectual property	-	-
(e) other non-current assets	(3,182)	(4,179)
2.2 Proceeds from disposal of:		
(a) property, plant and equipment	-	20
(b) businesses (see item 10)	-	-
(c) investments	-	-
(d) intellectual property	-	-
(e) other non-current assets	-	-
2.3 Cash flows from loans to other entities	-	-
2.4 Dividends received (see note 3)	-	-
2.5 Other (provide details if material)	-	-
2.6 Net cash from / (used in) investing activities	(3,466)	(4,774)

3. Cash flows from financing activities	-	-
3.1 Proceeds from issues of shares	15,000	15,000
3.2 Proceeds from issue of convertible notes	-	-
3.3 Proceeds from exercise of share options	-	520
3.4 Transaction costs related to issues of shares, convertible notes or options	(220)	(220)
3.5 Proceeds from borrowings	-	-
3.6 Repayment of borrowings	-	-
3.7 Transaction costs related to loans and borrowings	-	-
3.8 Dividends paid	-	-
3.9 Other (provide details if material)	213	173
3.10 Net cash from / (used in) financing activities	14,993	15,473

4. Net increase / (decrease) in cash and cash equivalents for the period		
4.1 Cash and cash equivalents at beginning of quarter/year to date	4,750	7,226
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(839)	(2,467)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	(3,447)	(4,774)
4.4 Net cash from / (used in) financing activities (item 3.10 above)	14,993	15,473

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	14	14
4.6	Cash and cash equivalents at end of quarter	15,471	15,471

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	15,471	4,749
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	15,471	4,749

6. Payments to directors of the entity and their associates

- 6.1 Aggregate amount of payments to these parties included in item 1.2
- 6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

Current quarter \$A'000
204
-

7. Payments to related entities of the entity and their associates

- 7.1 Aggregate amount of payments to these parties included in item 1.2
- 7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

Current quarter \$A'000
-
-

8. Financing facilities available <i>Add notes as necessary for an understanding of the position</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1 Loan facilities	-	-
8.2 Credit standby arrangements	-	-
8.3 Other (please specify)	-	3,000
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

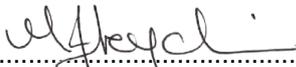
The amount in 8.3 is made up of a \$3,000,000 zero coupon promissory note payable to Australia Nickel & Platinum Holding Company Ltd which is due in March 2018. The note was issued to Nickel & Platinum Holding Company (a subsidiary of Ivanhoe Mines Inc.) by a Clean TeQ Holdings Limited group company as part consideration for the acquisition of Ivanplats Holding Company Pty Ltd, which holds 100% title to the Syerston exploration licences.

9. Estimated cash outflows for next quarter	\$A'000
9.1 Research and development	(131)
9.2 Product manufacturing and operating costs	(517)
9.3 Advertising and marketing	(36)
9.4 Leased assets	(62)
9.5 Staff costs	(666)
9.6 Administration and corporate costs	(497)
9.7 Syerston Project Costs	(2,482)
9.8. Working Capital Costs	(1,696)
9.9 Total estimated cash outflows	(6,087)

10. Acquisitions and disposals of business entities (items 2.1(b) and 2.2(b) above)	Acquisitions	Disposals
10.1 Name of entity	N/A	N/A
10.2 Place of incorporation or registration	N/A	N/A
10.3 Consideration for acquisition or disposal	N/A	N/A
10.4 Total net assets	N/A	N/A
10.5 Nature of business	N/A	N/A

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Sign here:  Date: 24.01.2017
(Director/Company secretary)

Print name: Melanie Leydin
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Notes

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.