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ASX Announcement

16th January 2019

Ardmore Phosphate Rock Project

DFS Cost Optimisation & Start-Up Operations Update

Highlights

- ▶ Post Definitive Feasibility Study (“DFS”) cost reduction design initiatives progressing well with the further design work expected to be completed by Centrex’s consultant experts in February
- ▶ CDE Global continue to progress fabrication of the modular start-up wet processing plant due for completion in March 2019 with installation and commissioning of modular plant planned for completion by mid-2019 along with associated site works
- ▶ Site tour for another major regional customer completed last month as part of diligence process in finalising further trial shipment contracts
- ▶ Further fertiliser conversion test work completed by KemWorks upon request by major Asian based phosphate rock importer to evaluate the less common hemidihydrate (“HDH”) phosphoric acid process simulating their manufacturing facilities. The test work provided excellent results with >98% P₂O₅ recovery whilst meeting other key target specifications
- ▶ Second public information session held at the local township of Dajarra with positive feedback

Summary

As previously announced Centrex Metals Limited (“Centrex”) has identified a number of cost-reduction design initiatives post completion of the Definitive Feasibility Study (“DFS”) for its Ardmore Phosphate Rock Project (“Ardmore”) in North West Queensland. The opportunities were identified from a series of independent reviews of the DFS by external consultants. As announced previously, A\$ 5.7 million in capital and A\$ 3/t in operating cost savings have been realised, with a number of other initiatives currently under assessment. Evaluation of the remaining items and corresponding updated designs from Centrex’s consultants are expected for completion next month, with revised DFS estimates and financials expected to follow.

Centrex is constructing a start-up operation for the project which is on-track for first production in 2019. The start-up operation is targeted to produce circa 30,000 wet tonnes of concentrate to provide a number of priority customers with 5,000 to 6,000 wet tonnes trial shipments in order to secure long-term offtake agreements to underpin project financing for the full-scale operations. The start-up modular process plant will have a capacity of 70tph and has been designed to be expandable to 140tph for the full-scale operation. The start-up operation will not only provide trial shipments but also significantly de-risk the project technically.

CDE Global are nearing completion of fabrication for the start-up modular wet process plant, with installation and commissioning planned for completion by mid-2019 along with associated site works. Environmental approvals for the start-up operations were secured last month representing a major milestone for the project.

Marketing for the product is progressing well with one contract for a 5,000 wet tonne trial shipment to a major regional fertiliser manufacturer already signed, and further contracts advancing. A site tour was completed last month with a second major regional fertiliser manufacturer as part of their due diligence for a trial shipment, and further fertiliser conversion test work successfully completed with excellent results at the request of a major Asian phosphate rock importer.

A second public information session was held at the community hall in the local township of Dajarra to provide further information on the planned start-up operation. This session was very positively received. Additional sessions will be held in Dajarra and Mount Isa once the results of the start-up phase are available to provide additional details of the proposed full-scale operation.



CAPTION: Fabricated sections of the Ardmore modular process plant at CDE Global.

Fertiliser Conversion Test Work

KemWorks (US based phosphate technology specialist) were engaged during the past months to undertake further fertiliser conversion test work for the production of phosphoric acid under specific conditions to simulate a major Asian phosphate rock importer's hemidihydrate ("HDH") style process plant. Centrex previously reported excellent results from KemWorks on the more common dihydrate ("DH") process route.

The HDH process route for phosphoric acid production has some cost advantages over the DH process, however it can be more restrictive in respect to the quality of phosphate rock feed. HDH test work completed by KemWorks on Ardmore phosphate rock concentrate confirmed its high quality and concluded it was well suited to the HDH process.

A 77-hour pilot trial was completed using a 134kg sub-sample of phosphate rock concentrate from the previously reported beneficiation pilot trials, and from the same material as DH test work was previously undertaken.

For full details of the beneficiation pilot runs see the announcement 27th March 2018:

<https://www.asx.com.au/asxpdf/20180327/pdf/43srn9t0n41y3m.pdf>

The results of the HDH test work were all reported in accordance with the provisions of the JORC Code 2012 and Centrex is not aware of any new information or data that materially affects the information contained within the previous releases. All material assumptions and technical parameters underpinning the estimates in the previous announcements continue to apply and have not materially changed.

TABLE: Major element chemistry of phosphate rock concentrate used by KemWorks for the HDH test work.

Element	Value (mass %)
P ₂ O ₅	35.1
CaO	47.4
SiO ₂ (Total)	3.29
SiO ₂ (Reactive)	0.51
Al ₂ O ₃	0.84
Fe ₂ O ₃	2.09
SO ₃	1.18
MgO	0.16
F	3.80
Na ₂ O	0.45
K ₂ O	0.13
CO ₂	2.14
Total Organic Carbon	0.016

Key results of the HDH test work included:

- Excellent P₂O₅ recovery of >98%;

- Relatively low sulphuric acid consumption of 2.52 t H₂SO₄/t P₂O₅ meaning low acid usage costs compared to most phosphate rocks on the market;
- Good phosphoric acid quality was produced, with a low Minor Element Ratio ("MER") of 0.058 ([Fe₂O₃ + Al₂O₃ + MgO] / P₂O₅);
- Gypsum filtration rates were similar to other operations and the gypsum production rate was low due to the low CaO/P₂O₅ ratio of the Ardmore concentrate; and
- Corrosion/erosion rates were similar to other HDH operations and in line with expectations.

Overall, KemWorks noted that the results of the HDH test work were relatively consistent with the results of the DH test work undertaken previously. These results support the view that the Ardmore concentrate is an excellent feed stock for phosphoric acid production using either process route, or alternatively for the production of single superphosphate as previously demonstrated.

For further information, please contact:

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Competent Persons Statement

The information in this report relating to Exploration Results is based on information compiled by Mr Steve Klose who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Klose is the GM Projects of Centrex Metals Limited. Mr Klose has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which he is undertaking 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 Klose consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Ardmore Phosphate Rock Project JORC Table 1 Report

SECTION 1: Sampling techniques and data.

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling Sample representivity Determination of mineralisation 	<p>Sampling for beneficiation pilot runs has been previously reported. For full details of the beneficiation pilot runs see the announcement 27th March 2018:</p> <p>https://www.asx.com.au/asxpdf/20180327/pdf/43srn9t0n41y3m.pdf</p> <p>The results were all reported in accordance with the provisions of the JORC Code 2012 and Centrex is not aware of any new information or data that materially affects the information contained within the previous releases. All material assumptions and technical parameters underpinning the estimates in the previous announcements continue to apply and have not materially changed.</p> <p>A 134kg sub-sample of homogenised concentrate (cone and quartered) from the second beneficiation pilot run was sent to KemWorks in the US for a phosphoric acid pilot trial. The material was 100% -2mm and 100% +38µm, targeting average nominated customer sizing specifications for phosphate rock exports. The as supplied material was ground by KemWorks to 100% passing 1.6mm and re-homogenised (cone and quartered).</p>
Drilling techniques	<ul style="list-style-type: none"> Drill type 	<p>The bulk composite used for the beneficiation pilot trials to produce the phosphate rock concentrate was from three excavations across the Southern Zone of the deposit.</p> <p>For full details of the beneficiation pilot runs see the announcement 27th March 2018:</p>

Criteria	JORC Code explanation	Commentary
		https://www.asx.com.au/asxpdf/20180327/pdf/43srn9t0n41y3m.pdf The results were all reported in accordance with the provisions of the JORC Code 2012 and Centrex is not aware of any new information or data that materially affects the information contained within the previous releases. All material assumptions and technical parameters underpinning the estimates in the previous announcements continue to apply and have not materially changed.
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> • <i>Method of recording and assessing sample recoveries</i> • <i>Measures taken to maximise sample recovery</i> 	No drilling undertaken, only excavations with all material taken.
<i>Logging</i>	<ul style="list-style-type: none"> • <i>Geological and geotechnical logging</i> • <i>Whether logging is qualitative or quantitative</i> • <i>Total length and percentage of the relevant intersections logged</i> 	Excavations were qualitatively logged in the field, using nearby drill hole logs as a guide. Flitch samples were taken from the top contact of the phosphorite seam.
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> • <i>Nature, quality and appropriateness of the sample preparation technique</i> • <i>Quality control</i> • <i>Sample representivity</i> • <i>Sample sizes</i> 	Sampling for beneficiation pilot runs has been previously reported. For full details of the beneficiation pilot runs see the announcement 27 th March 2018: https://www.asx.com.au/asxpdf/20180327/pdf/43srn9t0n41y3m.pdf The results were all reported in accordance with the provisions of the JORC Code 2012 and Centrex is not aware of any new information or data that materially affects the information contained within the previous releases. All material assumptions

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		<p>and technical parameters underpinning the estimates in the previous announcements continue to apply and have not materially changed.</p> <p>A 134kg sub-sample of homogenised concentrate (cone and quartered) from the second beneficiation pilot run was send to KemWorks in the US for a phosphoric acid pilot trial. The material was 100% -2mm and 100% +38µm, targeting average nominated customer sizing specifications for phosphate rock exports. The as supplied material was ground by KemWorks to 100% passing 1.6mm and re-homogenised (cone and quartered).</p>																																																															
Quality of assay data and laboratory tests	<ul style="list-style-type: none">Nature of quality control procedures	<p>Major element assays reported were undertaken by KemWorks using the following methods for major elements</p> <table><tr><th colspan="2">Analysis</th><th>Test Method</th><th>Standard No.</th></tr><tr><td rowspan="4">P₂O₅</td><td>Total</td><td>Gravimetric (1)</td><td>AFPC - IX.3.B</td></tr><tr><td>CI</td><td>Ext + Spectrophotometric</td><td>AFPC - XI.4.C</td></tr><tr><td>CS</td><td>Calculated</td><td>By Difference</td></tr><tr><td>WS</td><td>Ext + Spectrophotometric</td><td>AFPC - XI.6.C</td></tr><tr><td colspan="2" rowspan="2">SO₃</td><td>Solid sample: Gravimetric</td><td>Solid sample: AFPC - IX.19.A (2)</td></tr><tr><td>Liquid sample: Digestion / ICP</td><td>Liquid sample: AFPC - XI.14.B</td></tr><tr><td colspan="2">CaO</td><td>Digestion / ICP</td><td>AFPC - IX.3.D.2</td></tr><tr><td colspan="2">MgO</td><td>Digestion / ICP</td><td>AFPC - IX.3.D.2</td></tr><tr><td colspan="2">Al₂O₃</td><td>Digestion / ICP</td><td>AFPC - IX.3.D.2</td></tr><tr><td colspan="2">Na₂O</td><td>Digestion / ICP</td><td>AFPC - IX.3.D.2</td></tr><tr><td colspan="2">K₂O</td><td>Digestion / ICP</td><td>AFPC - IX.3.D.2</td></tr><tr><td colspan="2">Fe₂O₃</td><td>Digestion / ICP</td><td>AFPC - IX.3.D.2</td></tr><tr><td rowspan="2">SiO₂</td><td>Total</td><td>Gravimetric</td><td>AFPC - IX.5.A</td></tr><tr><td>Sol.</td><td>Gravimetric</td><td>AFPC - IX.5.A (mod)</td></tr><tr><td colspan="2" rowspan="2">F</td><td rowspan="2">Ion Specific electrode</td><td>Solid sample: AFPC - IX.14.B</td></tr><tr><td>Liquid sample: AFPC - XI.18.B</td></tr><tr><td colspan="2">CO₂</td><td>Gasometric</td><td>AFPC - IX.13.B</td></tr></table> <p>1-10kg sub-samples of the same phosphate rock concentrate were sent to numerous customers for testing, with similar results reported to KemWorks. It was noted Centrex’s own assay technique of lithium borate fusion followed by ICP provided</p>	Analysis		Test Method	Standard No.	P ₂ O ₅	Total	Gravimetric (1)	AFPC - IX.3.B	CI	Ext + Spectrophotometric	AFPC - XI.4.C	CS	Calculated	By Difference	WS	Ext + Spectrophotometric	AFPC - XI.6.C	SO ₃		Solid sample: Gravimetric	Solid sample: AFPC - IX.19.A (2)	Liquid sample: Digestion / ICP	Liquid sample: AFPC - XI.14.B	CaO		Digestion / ICP	AFPC - IX.3.D.2	MgO		Digestion / ICP	AFPC - IX.3.D.2	Al ₂ O ₃		Digestion / ICP	AFPC - IX.3.D.2	Na ₂ O		Digestion / ICP	AFPC - IX.3.D.2	K ₂ O		Digestion / ICP	AFPC - IX.3.D.2	Fe ₂ O ₃		Digestion / ICP	AFPC - IX.3.D.2	SiO ₂	Total	Gravimetric	AFPC - IX.5.A	Sol.	Gravimetric	AFPC - IX.5.A (mod)	F		Ion Specific electrode	Solid sample: AFPC - IX.14.B	Liquid sample: AFPC - XI.18.B	CO ₂		Gasometric	AFPC - IX.13.B
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		slightly lower measured P ₂ O ₅ than by KemWorks and most customers.
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage protocols.</i> • <i>Any adjustment to assay data.</i> 	Results reported are for a single pilot plant test run. Although a differing process route to previous DH test work undertaken and reported, overall results aligned relatively well.
<i>Location of data points</i>	<ul style="list-style-type: none"> • <i>Accuracy and quality of surveys.</i> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	Bulk excavation locations were recorded by handheld GPS.
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity</i> 	Three bulk excavations were completed using a 23t excavator to provide further material for additional pilot plant optimisation. The excavations were planned close to existing resource drill holes with the intention to provide a range of ore types and grades in order to be able to form varying composite grades as required. The flitches were used to form a bulk composite approximating the modelled selectively mined feed grade of the Southern Zone.

Criteria	JORC Code explanation	Commentary
	<i>appropriate for the Mineral Resource.</i> <ul style="list-style-type: none"> <i>Whether sample compositing has been applied.</i> 	
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <i>Whether the orientation of sampling achieves unbiased sampling.</i> 	Excavations were completed vertically, roughly perpendicular to the flat lying phosphorite ore seam.
<i>Sample security</i>	<ul style="list-style-type: none"> <i>The measures taken to ensure sample security.</i> 	Phosphate rock concentrate samples were transported from Bureau Veritas in Adelaide to KemWorks in the US in sealed containers.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> 	Only a single phosphoric acid pilot plant trial was run. No audits or reviews beyond those by KemWorks have been undertaken on the results reported.

Ardmore Phosphate Rock Project JORC Table 1 Report

SECTION 2: Reporting of Exploration Results.

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements. The security of the tenure held at the time of reporting. 	<p>The project is held on Mining Lease ML5542 held by Centrex Phosphate Pty Ltd, a 100% subsidiary of Centrex Metals Limited. A 21-year renewal terms was granted in 2017. Southern Cross Fertilisers Pty Ltd holds a 3% revenue royalty on production.</p> <p>Compensation agreements for exploration and mining with all relevant landowners over the Mining Lease are in place.</p>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> Exploration by other parties. 	All exploration was by Centrex.
<i>Geology</i>	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<p>The Ardmore phosphate deposit was discovered in September 1966 and is located within the 'Ardmore Outlier' of the Georgina Basin.</p> <p>The Cambrian aged sedimentary phosphate deposit consists predominantly of pelletal phosphorites with small bands of collophane mudstone. The small (approx. 100-200 micron) sized pellets of carbonate-fluorapatite probably formed in a shallow shelf environment.</p> <p>Within the Ardmore Outlier the single phosphate bed occurs within the Simpson Creek Phosphorite Member (SCPM) of the Beetle Creek Formation.</p> <p>The SCPM is essentially flat lying with a gentle to moderate dip (<20 degrees) to the east and occurs spatially within two main separate areas: the Northern Zone and the Southern Zone.</p> <p>The SCPM has an approximate average thickness of 5 m in the Southern Zone and is located from surface to greater than 15 m depth.</p> <p>The Northern Zone has an approximate average thickness of 3 m and is deeper than the Southern Zone, with depths starting from near-surface in the west before dipping away to the east and extending to depths greater than 20 m.</p>

<i>Drill hole Information</i>	<ul style="list-style-type: none"> • <i>A summary of all information material to the understanding of the exploration results.</i> 	No drilling results are reported, the results relate to bulk metallurgical test work only.
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> • <i>Weighting averaging techniques and grade cuts.</i> • <i>Aggregation procedure.</i> • <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	Results reported for the pilot run are reported on a weighted average basis from the time-based sampling over the trial.
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> • <i>Geometry of the mineralisation with respect to the drill hole angle.</i> 	All excavations were vertical and roughly perpendicular to the ore seam.
<i>Diagrams</i>	<ul style="list-style-type: none"> • <i>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.</i> 	<p>See previously reported results for the bulk composite formation in the announcement 27th March 2018:</p> <p>https://www.asx.com.au/asxpdf/20180327/pdf/43srn9t0n41y3m.pdf</p> <p>The results were all reported in accordance with the provisions of the JORC Code 2012 and Centrex is not aware of any new information or data that materially affects the information contained within the previous releases. All material assumptions and technical parameters underpinning the estimates in the previous announcements continue to apply and have not materially changed.</p>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> • <i>Representative reporting of both low and high grades and/or widths.</i> 	The reporting of results is considered to be balanced and all relevant results have been reported.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> • <i>Other exploration data.</i> 	No other exploration data is available at this time.
<i>Further work</i>	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work.</i> 	A start-up wet process plant is currently being constructed and this plant will produce circa 30,000 tonnes of concentrate in 2019 for customer plant trials.