Emmerson Plc / Ticker: EML / Index: LSE / Sector: Mining

20 November 2018

Emmerson Plc ("Emmerson" or the "Company")

Scoping Study Confirms Potential for Low Capex, High Margin Potash Mine

Emmerson Plc, the Moroccan focused potash development company, is pleased to release a summary of the results of its recently completed Scoping Study for the Company's 100% owned Khemisset Potash Project located in northern Morocco ("Khemisset" or "the Project"). A report detailing the full findings of the Scoping Study is available to view on the Company website here: https://www.emmersonplc.com/investors/corporate-documents/.

The Scoping Study was managed by global independent mining and engineering consultant, Golder Associates ("Golder") and designs and estimates have been prepared in line with guidelines provided by the Australasian Institute of Mining and Metallurgy ("AusIMM"). Economic metrics of the Project have been calculated by the Company using the technical outputs of the Scoping Study: such metrics have been reviewed and approved by Golder.

Emmerson will be hosting an Analyst and Shareholder conference call on Thursday 22 November at 11.00am GMT to discuss the Scoping Study results. Further information can be found below.

Highlights

- Post **Tax NPV_{10} of US$795 million[1] and IRR of 29.8%** over 20 year mine life
  - Assumes flat real price of US$360/tonne CFR Brazil price (today's price in Brazilian market)
- Using forecast prices from Independent Market Consultant Argus Media, **NPV_{10} increases to US$1.14 billion** over 20 year mine life
- **Bottom quartile projected all-in-sustaining delivered cost** to all Emmerson's target markets including Brazil, NW Europe, Morocco, South Africa
- **Top quartile projected cash margins** according to analysis conducted by Argus FMB
  - Average, steady state post-tax **cash margins of 50%** at current potash prices
  - Average, steady state, **EBITDA margins of nearly 64%** at current potash prices
- Robust cashflow generation at a broad range of potash price assumptions
  - Average, steady state, **post-tax cashflow of US$184 million per annum** assuming a flat, real, potash price of US$360/tonne CFR Brazil
  - **Less than 3.25yr capital payback**
- Initial mine life of 20 years with significant potential to increase from existing in-situ resource (outside of Inferred Mineral Resource Estimate) and ongoing exploration in North East Khemisset
  - 6Mtpa run of mine ore delivering nearly **800,000 tonnes of K60 MOP per annum** on average over life of mine
- Total **pre-production capital cost US$405 million including US$90 million of contingency**
  - Bottom quartile capital intensity per tonne of product produced, **less than half of global peer average capital intensity**
- Design and estimates completed by independent engineers according to AusIMM guidelines for capital and operating cost estimates

---

[1] Nominal NPV_{10}, 2% escalation applied to operating costs and revenues

- Emmerson cash position, as at 31 October 2018, of £3.8 million
    - Fully funded through until at least Q1 2020 based on current planned work streams

Hayden Locke, CEO of Emmerson, commented:

"The Scoping Study has confirmed our belief as a team that Khemisset has the potential to be a low capital cost, high margin potash mine, which is a very rare asset in the industry. Potash is controlled by a small handful of companies and is an industry with high barriers to entry, predominantly in the form of extremely high capital cost. This means that few new players, if any, can ever enter the market. Khemisset, which has an estimated capital intensity less than half of the global peer average, and less than a third of the average Canadian development, gives Emmerson a clear opportunity to be one of the few junior companies in the space.

"The economic sensitivity analysis we have conducted, based on the results of the Scoping Study, indicates that the Project will generate extremely robust returns, regardless of potash price, and supports our strong belief that it will be financeable in any market conditions. This is a hurdle that very few potash projects globally can clear.

"Assuming a flat US$240/tonne CFR Brazil potash price, which is close to the lowest price seen in the Brazilian market in last twelve to fifteen years – and a price which industry performance has shown is not sustainable – the Khemisset Project is still forecast to deliver average annual, post-tax, cashflows of nearly US$80 million per annum over the life of mine. At today's potash price, which is still too low to incentivise the financing and construction of any of the mega potash projects, including BHP's Jansen Project, Khemisset is forecast to deliver post-tax cashflows of over US$180 million per annum and deliver unlevered IRRs of nearly 30%.

"Since acquiring the Project in June we have made strong progress and, thanks to the dedication of our team, I am delighted to be delivering the Scoping Study months ahead of schedule. Our team of independent experts, led by Golder and Ercosplan, have done an outstanding job moving the Project quickly forward, addressing all the key workstreams and risks associated with a Project like this. We believe there is further upside to the economics for Khemisset and we have already identified a number of areas where improvements can be made and where conservative assumptions have been used, which we will seek to refine in the coming studies.

"The next steps will include the completion of drilling, a bankable metallurgical testwork programme and then commencement of more detailed option and feasibility studies. The results of the Scoping Study give our team a clear path to continue to move the Khemisset Potash Project through the various de-risking milestones ahead and our cash balance of £3.8 million, which funds us through until at least Q1 2020, puts us in an enviable position to execute on our strategy quickly."

Key Assumptions and Results from Study

The key assumption underpinning the Scoping Study is an average annual extraction rate of 6 million tonnes of ROM ore with an average grade over the life of mine of 9.35% K_2O. The Scoping Study is based entirely on the JORC compliant Inferred Mineral Resource Estimate of 311Mt at an average grade of 10.2% K_2O and delivers an initial mine life of 20 years.

Processing assumes a hot leaching and crystallisation process to extract and purify the KCl in the ore into saleable grade K60 MOP. Over the life of mine, the process plant delivers an average of approximately 800,000 metric tonnes per annum of K60 product for sale.

The Scoping Study assumes all product is exported through the Port of Mohammedia, using trucks from mine site, to be sold in Brazil, NW Europe, NOLA and South Africa.

Capital cost estimates include a contingency of 30% and capital and operating cost estimates have an accuracy of ±30-50%. Key assumptions and results are outlined in **Table 1** below:

Parameter	Value
Initial Operating Life	20 years
Annual ROM Extraction Rate	6Mtpa
Average Life of Mine Grade to Mill	9.35% K_2O
Average Metallurgical Recovery (LOM)	83.6%
Average Annual Steady State Production Rate	800,000 metric tonnes
Flat Real MOP Price CFR Brazil	US$360/tonne
Capital Cost (including US$90m contingency)	US$405 million
Total Cash Cost FOB Port of Mohammedia	US$115.4/tonne
All-in-Sustaining Cash FOB Port of Mohammedia	US$147.6/tonne
Average Steady State EBITDA	US$236 million
Average Steady State EBTDA Margin	63.5%
Average Steady State Annual Post-Tax Cash Flow	US$184 million
Average Steady State Cash Margin	50.0%
Post Tax NPV10 (nominal)	US$795 million
Post Tax IRR (nominal)	29.8%
Post-tax Payback Period	3.25yrs

Table 1: Key Assumptions and Results

Economic Sensitivity Analysis

Economic sensitivity analysis of Khemisset shows it to be a financially robust project that delivers very strong NPVs and cashflows through a range of potash prices. A summary of NPVs at a variety of potash prices and discount rates can be seen in **Table 2** below.

	MOP CFR Brazil						
Discount Rate	300	320	340	360	380	400	420
5.0%	929	1,121	1,312	**1,504**	1,695	1,887	2,078
7.5%	641	791	940	**1,090**	1,240	1,389	1,539
10.0%	**437**	**556**	**676**	**795**	**915**	**1,034**	**1,153**
12.5%	289	386	483	**580**	678	775	872
15.0%	179	260	341	**421**	502	582	663

Table 2: NPV Sensitivity to Potash Price and Discount Rate

Strong cashflow generation at a variety of low potash prices is fundamental to the ability to finance the Project. Khemisset delivers strong, post-tax, cashflows which Management believes will be capable of delivering the requisite finance to complete the construction and ramp up of the mine. A summary of the post-tax cashflow and EBITDA at a variety of potash prices can been seen in **Table 3** and **Table 4** below.

Ave. Life of Mine Steady State Post-Tax Cashflow at Various Potash Prices							
Flat MOP CFR Price (US$/tonne)	300	320	340	360	380	400	420
Ave. Steady State Post-Tax Cashflow US$m/year (Nominal)	130	148	166	**184**	202	221	239

Table 3: Post-tax Cashflow Sensitivity to Potash Price

Ave. Life of Mine Steady State EBITDA at Various Potash Prices							
Flat MOP CFR Brazil Price (US$/tonne)	300	320	340	360	380	400	420
Ave. Steady State EBITDA US$m/year (Nominal)	176	196	216	**236**	256	276	296

Table 4: EBITDA Sensitivity to Potash Price

Key Financial Assumptions for DCF Model
Flat MOP Prices over Life of Mine (Base case US$360/tonne CFR Brazil)
Nominal Discount Rate of 10%
Costs and revenues escalated at 2% per annum over life of mine
5 Yr Corporate Tax Holiday
17.5% Corporate Tax Rate on Exported Product
Two years pre-production, ramp-up 50% in year 1

Table 5: Key Assumptions Used in Financial Model

Summary of Capital and Operating Costs contained in the Study

Capital and operating costs were estimated from first principles in line with the Australian Institute of Mines and Metallurgy ("AusIMM") guidelines for a Scoping Study and have been estimated with an accuracy of ±30-50%.

The total pre-production capital cost of US$405 million, which includes a US$90 million (30%) contingency, places Khemisset in the lowest quartile for capital intensity among its global potash development peers. A summary of pre-production capital costs can be seen in Table 6 below.

Operating costs have been estimated using key inputs including equipment lists and mechanical performance, power consumption, Moroccan electricity and gas rates, Moroccan and expatriate labour rates. Some small items have been estimated using factorisation based on the engineer's experience and benchmarks obtained from its internal database of similar projects. A summary of operating costs can be seen in Table 7 below.

Summary of Capital Costs

Capital Cost Item	US$M
Mining	123.0
Processing Plant	138.0
Surface Infrastructure	40.2
Total	**301.2**
EPCM	14.3
Contingency (30%)	90.4
Total Pre-Production Capital Cost	**405.9**
Capital Intensity (US$/tonne product)	520.4

Table 6: Summary of Pre-Production Capital Costs

Summary of Operating Costs

Operating Cost Item	US$/t ROM	US$/t MOP
Mining	5.5	42.1
Processing	7.2	55.1
Other Site Operating Costs	0.7	5.0
Administration	0.4	3.2
Total Cash Cost to Mine Gate	**13.8**	**105.4**
Trucking to Port of Mohammedia	1.3	10.0

Sustaining Capital	4.2	32.2
All-in-Sustaining Cash Cost (FOB Mohammedia)	**19.3**	**147.6**
Freight to Brazil	2.5	15.0
All-in-Sustaining Cash Cost to Brazil	**21.8**	**162.6**

Table 7: Summary of Steady State Operating Costs

Comparison to Peers

The Scoping Study estimates that the capital intensity of the Khemisset Project, per tonne of product produced, will be less than half of the global peer average capital intensity for potash mines. Khemisset is in the bottom three projects globally in terms of both capital intensity and absolute pre-production capital cost. A comparison to other potash projects is shown in **Figure 1** below.

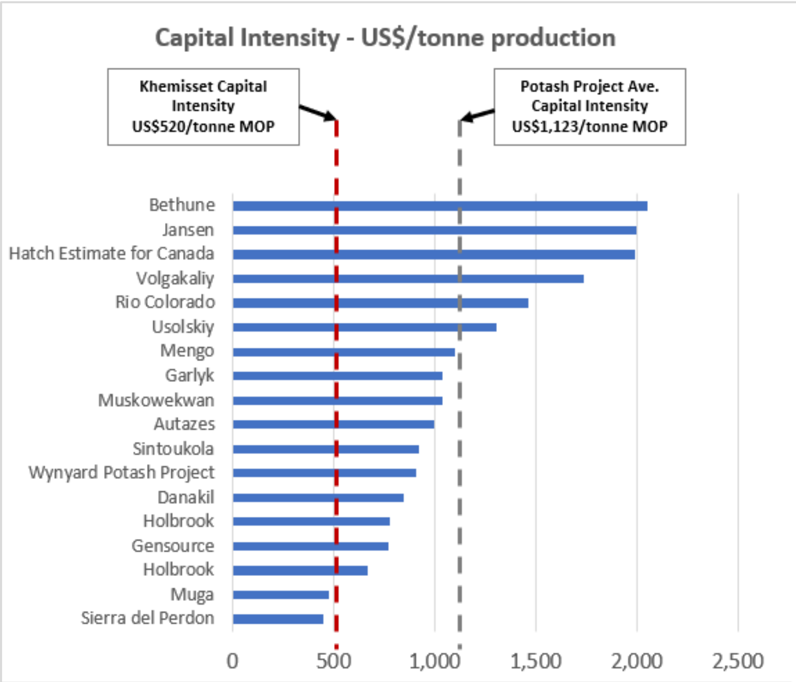

Figure 1. Pre-Production Capital Intensity for Potash Projects Globally

Despite Khemisset having higher operating costs to mine gate, relative to its low-cost Russian and Canadian peers it is still forecast to be in the bottom quartile delivered cost to all of its target markets due to its favourable location, within 140km of a port, and its proximity to its end markets. Independent market consultants, Argus FMB, provide analysis highlighting Emmerson's projected competitive position which can be seen below in **Figure 2.**

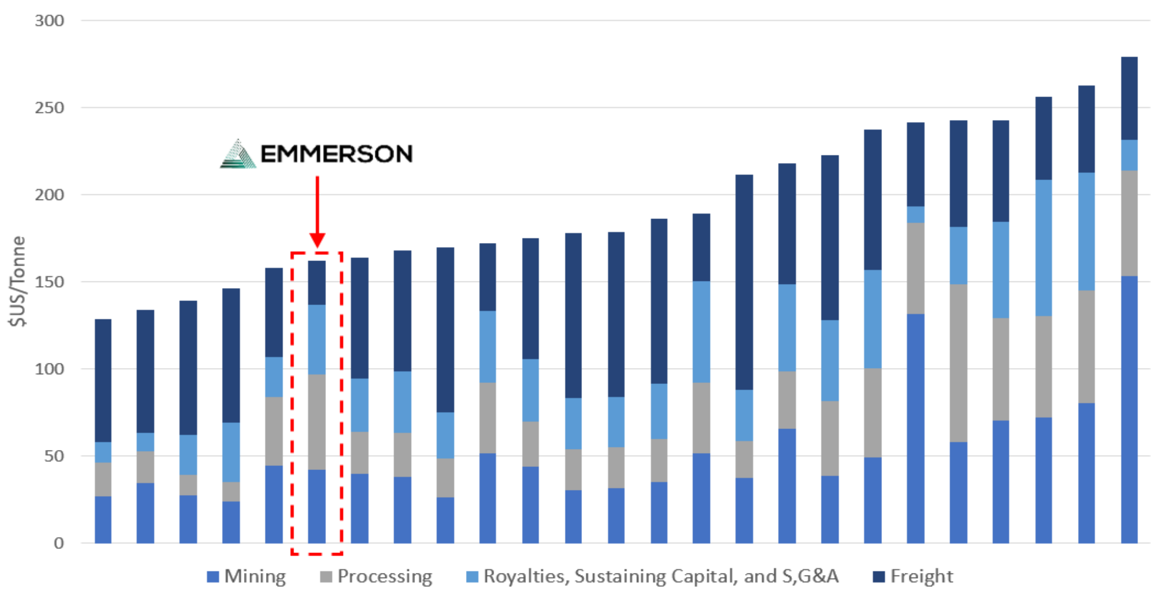

Figure 2: Industry All-in-Sustaining Delivered Cost Curve to CFR Brazil

Shareholder and Analyst Call

Emmerson will be hosting an Analyst and Shareholder conference call on Thursday 22 November at 11.00 GMT in order to discuss the Scoping Study results. The call will be hosted by Emmerson's Chief Executive Officer Hayden Locke who will be presenting a short presentation and answering questions submitted by participants.

To participate in this conference call, please dial 0808 109 0701 (if you are calling from outside of the UK, please dial +44 (0) 20 3003 2701) and enter the participant code 1362515# when prompted. Please note that all lines will be muted with the exception of Emmerson's management. Participants are invited to submit questions to the Company's public relations advisor, St Brides Partners Ltd, ahead of the call via email. Questions should be sent to shareholderenquiries@stbridespartners.co.uk.

Additionally, to view the presentation which will be related to throughout the call, and for the opportunity to submit questions in the duration of the call, please use the link below and log in as a participant; the password is: **Shareholder**

ENDS

For further information, please visit www.emmersonplc.com, follow us on Twitter (@emmerson_plc), or contact:

Hayden Locke	**Emmerson Plc**	Tel: +44 (0) 207 236 1177
James Biddle	**Beaumont Cornish Limited**	Tel: +44 (0) 207 628 3396
Roland Cornish	*Financial Adviser*	
Jeremy King	**Optiva Securities Limited**	Tel: +44 (0) 3137 1904
	Broker	
Lottie Wadham	**St Brides Partners Ltd**	Tel: +44 (0) 20 7236 1177
Gaby Jenner	*Financial PR/IR*	

Notes to Editors

Emmerson's primary focus is on developing the Khemisset Potash Project located in Northern Morocco. The Project has a large JORC Resource Estimate (2012) of 311.4Mt @ 10.2% K_2O and significant exploration potential with an accelerated development pathway targeting a low capex, high margin mine. Khemisset is perfectly located to capitalise on the expected growth of African fertiliser consumption whilst also being located on the doorstep of European markets. This unique positioning means the Project will receive a premium netback price compared to existing potash producers. The need to feed the world's rapidly increasing population is driving demand for potash and Emmerson is well placed to benefit from the opportunities this presents.

The information contained within this announcement is deemed by the Company to constitute inside information as stipulated under the Market Abuse Regulations (EU) No. 596/2014.