

CALGARY, ALBERTA--(Marketwired - March 2, 2016) - [Bacanora Minerals Ltd.](#) ("Bacanora" or the "Company") (TSX VENTURE:BCN)(AIM:BCN), the London and Canadian listed lithium company that is developing the Sonora Lithium Project¹ ("Project") in northern Mexico ("Sonora"), is pleased to announce positive results of a Pre-Feasibility Study ("PFS") (prepared in accordance with National Instrument 43-101 - *Standards of Disclosure for Mineral Projects* ("NI 43-101")) for the development of a mine and lithium carbonate ("Li₂CO₃") processing facility at Sonora. The PFS estimates a Project pre-tax Internal Rate of Return ("IRR") of 29% (post-tax 25%) and an associated Net Present Value ("NPV") of US\$776M, (post-tax US\$542M) at an 8% discount rate. These results highlight the strong economic potential of producing up to 35,000 tonnes per annum of battery grade Li₂CO₃ at Sonora. In addition, Sonora has the potential to produce up to 50,000 tonnes per year of potassium sulphate ("K₂SO₄"), for sale to the fertiliser industry.

With an Indicated Mineral Resource estimate of 5.0 million tonnes ("Mt") of lithium carbonate equivalent ("LCE")² and an Inferred Mineral Resource of 3.9 Mt of LCE, Sonora is one of the world's larger known clay lithium deposits. Following the results of the PFS, management is focused on advancing the development of Sonora and will immediately commence a Feasibility Study ("FS"), as it looks to bring the project into production to satisfy expected strong growth in demand for lithium from fast growing sectors, such as electric vehicles and energy storage.

Highlights of Sonora PFS:

Two phase open-pit mine and lithium carbonate processing facility with a life of over 20 years

- Phase 1: 17,500 tonnes per year of battery-grade Li₂CO₃, for the first 2 years
- Phase 2: Expansion to 35,000 tonnes Li₂CO₃ per year
- Potential to produce up to 50,000 tonnes per year of K₂SO₄ in the third year, for sale to the domestic Mexican fertiliser industry

¹ The Sonora Lithium Project is comprised of the following lithium properties: La Ventana lithium concession, which is 100 percent owned by Bacanora; El Sauz and Fleur concessions, which are held by Mexilit S.A. de C.V. ("Mexilit"); and the Megalit concession, which is held by Megalit S.A de C.V. ("Megalit"). Mexilit and Megalit are owned 70 percent by Bacanora and 30 percent by [Rare Earth Minerals plc](#)

² LCE = lithium carbonate (Li₂CO₃) equivalent; determined by multiplying Li value in percent by 5.324 to get an equivalent Li₂CO₃ value in percent. Use of LCE is to provide data comparable with industry reports and assumes complete conversion of lithium in clays with no recovery or process losses.

The PFS demonstrates the attractive economics of Sonora and key findings are shown in the table below:

Table 1: Key Results

Pre-Feasibility Study Key Indicators	Value
Pre-tax Net Present Value	\$776M
Pre-tax IRR (%)	29%
Simple Payback (years)	5
Initial Construction Capital Cost	\$240M
Stage 2 Construction Capital Cost	\$177M
Average LOM operating costs (\$/t Li ₂ CO ₃)	\$2,698
Average operating costs (\$/t Li ₂ CO ₃ net of K ₂ SO ₄ credits)	\$2,100
Post-tax NPV (at 8% discount)	\$542M
Post-tax IRR (%)	25%
Average annual EBITDA with co-products (US\$)	\$134M
Average annual Li ₂ CO ₃ production capacity (Years 1 and 2)	17,500 t
Average annual Li ₂ CO ₃ production capacity (Years 3 to 20)	35,000 t
Average annual K ₂ SO ₄ production (Years 3 to 20)	50,000 t

(* All costs are in US dollars and, rounded to nearest \$'000)

- Estimated Project pre-tax IRR of 29%; NPV of US\$776M, (at an 8% discount rate); and simple payback of five years, based on a flat US\$6,000/t for battery grade lithium carbonate over the Life Of Mine ("LOM") - recent price increases have seen spot prices of Li₂CO₃ in Asia increase to above US\$6,000/t
- Average annual earnings before interest, taxes, depreciation and amortisation ("EBITDA") estimated at US\$134M per annum
- Stage 1 capital cost estimate of US\$240M includes processing plant, on and off site infrastructure, Tailings Management Facility construction, and general administration costs
- Mine design indicates a total of 50 Mt of ore to be mined over the planned 20-year mine life with a stripping ratio of approximately 3:1 over LOM
- Integrated plant designed to initially process 1.4 Mt of ore per year, during the first 2 years of the project, subsequently increasing to 2.7 Mt per year subsequent to year three
- The Company intends to complete a FS by Q1 2017 and commence detailed design and site preparation work in Q2 2017

Peter Secker, CEO of Bacanora, commented, "With a Pre-Tax NPV of US\$776M and an IRR of 29%, the PFS supports that Sonora is well placed to become one of the next major lithium producers, supplying fast growing industries, such as electric vehicles, smartphones, and energy storage. The next key step in the development of Sonora is a Feasibility Study, which is fully funded and expected to be completed in Q1 2017."

"In tandem with the FS, we will be seeking additional offtake partners for Sonora's lithium carbonate, which will represent a major milestone as we focus on commercialising the project. With recent lithium price increases in the Asian market we believe that Sonora is a highly compelling project with which to generate value for shareholders. I look forward to providing further updates on our progress as we focus on transforming Bacanora from an exploration and development company into the next significant producer of lithium carbonate."

Project Introduction

The Sonora Lithium Project is located in northern Sonora State, Mexico, approximately three hours' drive north east of the state capital of Hermosillo, a city of approximately 700,000 people. Access to the site is by road from either Hermosillo or the US border town of Agua Prieta. The project has access to significant support infrastructure including paved roads, process water and high voltage power.

The Sonora lithium property hosts one of the world's larger known clay lithium deposits. The polyolithionite and hectorite mineralisation is hosted within shallow dipping sequences, outcropping on surface. A mineral resource estimate was prepared by SRK Consulting (UK) Limited in accordance with NI 43-101 with an effective date of November 19th, 2015. The following tables present the summary of current lithium resources for the project.

Table 2: Indicated Mineral Resources

Cut-off (Li ppm)	Tonnes (000t)	Li (ppm)	K (%)	LCE (000t)	LCE attributable to Bacanora (000t)
450	364,000	2,600	1.1	4,997	4,070

Table 3: Inferred Mineral Resources

Cut-off (Li ppm)	Tonnes (000t)	Li (ppm)	K (%)	LCE (000t)	LCE attributable to Bacanora (000t)
450	355,000	2,000	0.9	3,853	3,220

Notes: (i) ppm = parts per million

(ii) Mineral Resources that are not Mineral Reserves and do not have demonstrated economic viability.

(iii) Tonnes rounded to the nearest thousand.

(iv) The conversion factor from % Li to LCE is 5.323.

Mining Operations

The mining operation for the project is planned as an open-pit operation using conventional truck/shovel mining methods. Mining operations will be carried out with hydraulic excavators and haul trucks and an ancillary fleet of dozers, graders and water trucks. The Mineral Reserve estimate was prepared by Independent Mining Consultants Inc. in Tucson, Arizona. The Reserve estimate used an ore recovery factor of 100% and a mining dilution rate of 10% at an average dilution grade of 0%. The Mineral Reserve stripping ratio is approximately 5.4:1.

Table 4: Probable Mineral Reserves: (Cut-off grade of 0.12% Li)

Category	Tonnes Ore (000t)	Li (ppm)	K (%)	LCE (000t)	LCE attributable to Bacanora (000t)
Probable	129,774	3,015	1.28	2,083	1,813

For the Stage1/Stage2 mining design a total of 50 Mt of ore at a grade of 3,525 Li ppm and 1.49% K and a stripping ratio of 3.1:1 will be mined over the initial 20-year mine life.

Processing

Metallurgical testwork for the PFS was carried out at SGS Lakefield Laboratories in Canada and process engineering and design for the process plants and infrastructure was completed by Ausenco Limited ("Ausenco"). The processing plant design comprises a pre-concentration stage comprising scrubber, hydrocyclones and reverse flotation to produce an initial concentrate prior to roasting. The concentrate is subsequently heated in a kiln, at approximately 1,000 degrees Celsius, with gypsum to produce a lithium sulphate product. This sulphate material then undergoes hydrometallurgical treatment, filtration, cleaning,

precipitation and packaging, to produce a 99.5% Li_2CO_3 final battery grade product. The integrated plant has been designed to initially process 1.4 Mt of ore per year, during the first two years of the project, subsequently increasing to some 2.7 Mt per year subsequent to year three.

The plant design also includes a circuit to produce 50,000 tonnes per annum of commercial grade K_2SO_4 through a series of evaporation, precipitation, filtration and packaging stages. The plant has the potential to produce up to 50,000 tonnes per annum of this material, which could be sold as a fertiliser grade product for domestic consumption in Mexico.

Capital Costs

The initial mining capital costs include an initial fleet comprising a 12 cubic metre backhoe excavator and three 90-tonne haul trucks, building up to sixteen haul trucks at full production. In addition, there is an ancillary mobile fleet including dozers, graders and front end loaders. The initial capital cost of the equipment is estimated to be US\$19M.

The metallurgical processing facility capital cost estimate is based on an on-site processing plant comprising all new equipment, to produce battery-grade lithium carbonate.

The capital cost estimates for process plant, infrastructure, Tailings Management Facility construction, Engineering, Procurement, and Construction Management ("EPCM") fees, owner's costs and general administration costs were determined by Ausenco.

Table 5: Construction Capital Costs (rounded to nearest US\$'000)

Category	Estimate Stage 1 (US\$000)	Estimate Stage 2 (US\$000)
Mining equipment	19,000	9,600
Mining Infrastructure	3,700	0
Beneficiation plant	20,500	18,100
Lithium processing plant	90,500	81,400
On site infrastructure	15,900	9,600
Off site infrastructure	16,800	5,900
EPCM/Owner cost/Indirect	45,600	30,000
Contingency	28,000	22,500
Total	\$240,000	\$177,100

The LOM sustaining mining and processing capital requirement is approximately US\$111M.

Operating Cost Estimate

The mining and processing operating costs are for an operation achieving average annual production of approximately 35,000 tonnes of battery-grade, 99.5% Li_2CO_3 . The estimated average operating cost for the mine, primary and secondary processing facilities are presented below.

Table 6: Project Operating Costs

Category	Stage 1 (US\$/t Li_2CO_3)	Stage 2 (US\$/t Li_2CO_3)	Average LOM (US\$/t Li_2CO_3)
Mining	642	538	543
Processing	2,037	1,930	1,934
G&A	446	212	221
Total	3,125	2,680	2,698

Cash Flow Analysis

The project is currently estimated to have a short payback period of five years. Cash flows are based on a 100% equity funding basis and the economic analysis indicates a pre-tax Net Present Value, discounted at 8%, of approximately US\$776M as shown below and IRR of approximately 29%. Post tax the NPV is approximately US\$542M and IRR 25%.

Table 7: Sensitivity Analysis

Discount Rate	Base Case Pre Tax NPV (US\$ million)	Base Case Post Tax NPV (US\$ million)
0%	2,145	1,545
2%	1,647	1,182
4%	1,275	910
6%	993	702
8%	776	542

Base case LOM revenue is estimated at US\$4 billion, with an EBITDA of approximately US\$2.7 billion. An average MEX\$/US\$ exchange rate of 17.1:1 has been used over the life of the mine.

Market Review

SignumBox (Chile) has provided a lithium carbonate price forecast in the range of \$5,500 to \$6,000 per tonne. Recent data from Asia indicates that spot pricing is currently above \$6,000 per tonne.

The current dominant lithium battery technologies such as lithium cobalt oxide, lithium manganese oxide and lithium nickel manganese cobalt oxide typically use lithium carbonate as the main source of lithium cathode material and battery cathode demand is the fastest growing segment of the lithium market. K₂SO₄ is used as a fertilizer product and can sell in the range of \$600-\$700/t.

Community and Environment

As part of the Company's Environmental Management Programs, initial site sampling and monitoring commenced in Q3 2015. Local environmental consulting groups are being used to prepare the Manifestacion de Impacto Ambiental, which is scheduled to be lodged with the appropriate local authorities in Q3, 2016. In addition, the Company has designed an active programme to engage with the local communities living within the project area.

Project Timetable

Over the next 18 months the Company will continue to progress the Sonora Lithium Project through the project development stages, with the intention of completing a Feasibility Study by Q1 (calendar) 2017. The following preliminary indicative timetable is proposed:

- Q1 (calendar), 2016: file NI 43-101, PFS
- Q3 (calendar), 2016: complete pilot plant trials, distribute lithium samples to potential off-takers
- Q1 (calendar), 2017: finalise NI 43-101, FS
- Q2 (calendar), 2017: commence detailed design and site preparation works
- Q4 (calendar) 2018: commence commissioning

Report Filing

An technical report on this Pre-Feasibility Study (prepared in accordance with NI 43-101) will be filed on SEDAR at www.sedar.com and at www.bacanoraminerals.com within 45 (forty-five) days of the date of this news release.

Qualified Persons

Each of the qualified persons below has reviewed and approved the technical information contained in this press release and is independent of the Company. The qualified persons are:

Kevin Scott, P. Eng., of Ausenco, is the qualified person responsible for the recovery methods, infrastructure, capital cost and operating cost estimates, and the overall preparation of the report.

The SRK Mineral Resource estimate was prepared by Mr. Martin Pittuck of SRK, who is an independent Qualified Person as defined by NI 43-101.

The Mineral Reserve estimate and mine plan was prepared by Mr. Herb Welhener of Independent Mining Consultants Inc. who is an independent Qualified Person as defined by NI 43-101.

The Indicated and Inferred Mineral Resource and Probable Mineral Reserve estimates in this press release were prepared in

accordance with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM"), "Definition Standards on Mineral Resources and Mineral Reserves" adopted by the CIM Council on May 10, 2014, and the CIM "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines," adopted by CIM Council on November 23, 2003, in compliance with NI 43-101 guidelines.

ABOUT BACANORA:

Bacanora is a Canadian and London listed minerals explorer (TSX VENTURE:BCN)(AIM:BCN). The Company explores and develops industrial mineral projects, with a primary focus on lithium and borates. The Company's operations are based in Hermosillo in northern Mexico and it currently has two significant projects under development in the state of Sonora. The two main assets of Bacanora are:

- The Sonora Lithium Project, which consists of ten mining concession areas covering approximately 100 thousand hectares in the northeast of Sonora State. The Company, through drilling and exploration work to date, has established an Indicated Mineral Resource (in accordance with NI 43-101 of 5.0 Mt LCE contained in 364 Mt of clay at a Li grade of 2,600 ppm and an Inferred Mineral Resource of 3.9 Mt LCE contained in 355 Mt of clay at a Li grade of 2,000 ppm.
- The Magdalena Borate Project, covering 16,503 hectares in Sonora state, Mexico, where the Company's main borate zone, El Cajon, has an Indicated Resource (in accordance with NI 43-101) of 1.17 Mt of B₂O₃, at an eight percent cut-off grade. The Company has completed a number of measures to determine the geological and commercial potential of the project and is undertaking a prefeasibility exercise to determine the economic benefit of developing the mine and constructing a processing plant on site in order to become a supplier of boric acid.

Reader Advisory

Except for statements of historical fact, this news release contains certain "forward-looking information" within the meaning of applicable securities law. Forward-looking information is frequently characterized by words such as "plan", "expect", "project", "intend", "believe", "anticipate", "estimate" and other similar words, or statements that certain events or conditions "may" or "will" occur. In particular, forward-looking information in this press release includes, but is not limited to disclosure regarding the anticipated timing for completion of the construction and commissioning of the process plant, capital and operating cost estimates, obtaining of relevant environmental and operating permits, completion of a feasibility study, the production of lithium products and the lithium market in general. Although we believe that the expectations reflected in the forward-looking information are reasonable, there can be no assurance that such expectations will prove to be correct. We cannot guarantee future results, performance or achievements. Consequently, there is no representation that the actual results achieved will be the same, in whole or in part, as those set out in the forward-looking information.

Forward-looking information is based on the opinions and estimates of management at the date the statements are made, and are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those anticipated in the forward-looking information. Some of the risks and other factors that could cause the results to differ materially from those expressed in the forward-looking information include, but are not limited to: commodity price volatility; general economic conditions in Canada, the United States, Mexico and globally; industry conditions, governmental regulation, including environmental regulation; unanticipated operating events or performance; failure to obtain industry partner and other third party consents and approvals, if and when required; the availability of capital on acceptable terms; the need to obtain required approvals from regulatory authorities; stock market volatility; competition for, among other things, capital, skilled personnel and supplies; changes in tax laws; and the other risk factors disclosed under our profile on SEDAR at www.sedar.com. Readers are cautioned that this list of risk factors should not be construed as exhaustive.

The forward-looking information contained in this news release is expressly qualified by this cautionary statement. We undertake no duty to update any of the forward-looking information to conform such information to actual results or to changes in our expectations except as otherwise required by applicable securities legislation. Readers are cautioned not to place undue reliance on forward-looking information.

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

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