

SASKATOON, SK, Dec. 29, 2016 /CNW/ - [Karnalyte Resources Inc.](#) ("Karnalyte" or the "Company") (TSX: KRN) is pleased to announce the completion of the optimization program at the Company's potash mine at Wynyard, Saskatchewan (the "Optimization Program").

Optimization Background

The Company's economic projections for the first phase of its planned 625,000 tonnes per year (tpy) potash mine at Wynyard ("Phase 1") used a conservative estimate of KCl content in the production brine that was based on laboratory dissolution tests and computer modelling. Given the challenging environment for potash, Karnalyte sought to improve the economics for Phase 1 with a program designed to optimize the potash production process and reduce projected operating and capital costs.

Karnalyte retained industry-leading experts in potash solution mining, Ercosplan Ingenieurgesellschaft Geotechnik und Bergbau mbH from Erfurt, Germany ("Ercosplan") to design, monitor and independently verify the results of the Optimization Program. The Optimization Program was designed to provide information about KCl brine concentrations that can be achieved at particular flow rates in a controlled cavern operation. The goal of the Optimization Program was to show that controlled carnallite solution mining of the Belle Plaine Member is technically feasible and to obtain data to calibrate the thermal model for the cavern.

The Optimization Program was conducted in three phases from May, 2016 until November, 2016:

- Sump leaching - to provide space to capture non-dissolved material from the next leaching stages;
- Undercut leaching - to provide a dissolution area required to obtain concentrated brine at relatively high flow rates during production leaching; and
- Production leaching - the cavern and surrounding rocks are heated by the injection of 85°C solvent, and hot brine with high KCl content is extracted from the cavern.

Optimization Results

Ercosplan has produced a report on the Optimization Program (the "Report") which expands on previous laboratory dissolution tests and computer modelling conducted during the preparation of the Company's feasibility study (the "Feasibility Study") and technical report for the Company's potash project. The Report indicates that during the hot production leaching stage, inflow rates of 15-20 m³/h and solvent temperature of 85°C can heat the cavern to temperatures of 70-75°C. These observations suggest that the cavern brine temperatures in the Feasibility Study estimated to be between 50-60°C during production leaching are too low and that achieving higher temperatures is possible. This would also confirm that the 116 g/l KCl concentration brine in the Feasibility Study (Ercosplan et al., 2012 /2/) is very conservative, and that higher KCl concentration in the production brine could be achieved with higher production brine temperature. This will require further testing to confirm the extent of the increased KCl concentration in the production brine.

Karnalyte believes that any increase in KCl concentration could significantly enhance project economics for the full scale Phase 1 plant by reducing operating and capital costs.

Conclusions

The Optimization Program allowed Karnalyte's technical and engineering teams to gather significant beneficial information which will be incorporated into the design and operation of the full scale potash production facility. The Report indicates that a full scale double well production cavern with 70m radius as planned in the Feasibility Study for brine production is not required for test work, as the necessary information to calibrate the modelling program can be obtained from a smaller diameter single well cavern.

Mr. Phinney commented "I would like to thank Karnalyte's technical team for their dedication in conducting this test on time and under budget."

About Karnalyte Resources Inc.

Karnalyte is engaged in the business of exploration and development of high purity potash and magnesium products. Karnalyte intends to develop and extract a carnallite-sylvite mineral deposit through a known solution mining process at competitive costs and with minimal environmental impact. Using a staged approach to construction, the Company plans to operate a solution mining facility that will initially produce 625,000 tpy, increasing to 2.125 million tpy of potash.

Karnalyte's common shares are traded on the TSX under the symbol KRN.

FORWARD-LOOKING STATEMENTS

Certain information included in this press release is forward-looking, within the meaning of applicable Canadian securities laws. Forward-looking information is often, but not always, identified by the use of words such as "anticipate", "believe", "could", "estimate", "expect", "plan", "intend", "forecast", "future", "guidance", "may", "predict", "project", "should", "strategy", "target", "will" or similar words or phrases suggesting future outcomes or language suggesting an outlook.

The forward-looking statements contained in this press release are based on certain key expectations and assumptions made by Karnalyte, including, without limitation, assumptions as to: the results of the Optimization Program, projected economics for the Company's planned potash production facility, the ability of Karnalyte to obtain financing on terms favourable to the Company, and the ability of Karnalyte to receive, in a timely manner, the necessary approvals from the Company's board of directors, shareholders, regulatory authorities, and other third parties.

Karnalyte believes the expectations and assumptions upon which the forward-looking information is based are reasonable. However, no assurance can be given that these assumptions and expectations will prove to be correct. Accordingly, readers should not place undue reliance on the forward-looking statements and information contained in this press release.

Actual results may vary from the forward-looking information presented in this press release, and such variations could be material. Risk factors and uncertainties could cause actual results to vary from the forward-looking information in this press release. Additional information on forward-looking statements and other factors that could affect Karnalyte's operations and financial results are included in documents on file with Canadian securities regulatory authorities and may be accessed through the Company's profile on the SEDAR website (www.sedar.com).

These forward-looking statements are made as of the date hereof and are expressly qualified in their entirety by this cautionary statement. Subject to applicable securities laws, the Corporation assumes no obligation to update or revise them to reflect new events or circumstances.

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