VANCOUVER, British Columbia, March 27, 2017 (GLOBE NEWSWIRE) -- Pure Energy Minerals Ltd. (TSX VENTURE:PE) (FRANKFURT:A111EG) (OTCQB:PEMIF) (the “Company” or “Pure Energy”) is pleased to announce that it has completed a constant-rate pumping test at its newest exploration well, CV-8, at the Clayton Valley South Project (the “CVS Project”). The test ran continuously for three days and included a collection of brine samples along with extensive hydrogeological data on the brine aquifer system. CV-8 is believed to be the deepest well drilled in Clayton Valley, having reached a total depth of 3,194 ft (974 m) below ground level. The drillers completed the well with casing and filter pack to a depth of 2,874 ft (876 m), installing perforated casing and seals around two separate intervals. This type of well construction allows for isolation and separate testing of shallow and deeper zones of the aquifer system.

The well encountered numerous aquifers, including the interlayered volcanic ash and silt that are typical of Clayton Valley lithium production. At greater depths, the well passed through travertine (hot springs deposits) and conglomerate (gravel) that had not previously been described on the CVS Project, thus offering the potential for new brine hosting aquifers. Down hole fluid logging revealed elevated electrical conductivity to the bottom of the well, suggesting the presence of brine at greater depths than any previous sampling on the project.

The pumping test was configured using an electric submersible pump and monitoring apparatus in CV-8. The test ran at a constant pumping rate of approximately 2.0 litres per second (30 gallons per minute) for its duration. The hydrogeologists collected approximately 48 separate brine samples (including QA/QC samples) for lithium analysis over the 72-hour pumping period.

Monitoring during the test revealed that the extracted brine from CV-8 reached near steady-state elevated fluid conductivity and fluid density, comparable to other brine wells on the CVS Project. Based on previously observed correlations between conductivity and lithium content, this suggests the production of consistent lithium-bearing brine during the entire pumping test. Data collected during the pumping test will be used to enhance understanding of the hydrogeology of the CVS Project. The team also collected depth-specific brine samples for chemical analysis. These results are expected in April. The upcoming Preliminary Economic Assessment (PEA) will include a full discussion and interpretation of the data from CV-8.

Patrick Highsmith, Pure Energy Minerals CEO commented, “*CV-8 probed greater depths and encountered new aquifers not yet seen on the CVS Project. It is significant that CV-8 more than doubled the thickness of known brine-saturated sediments in our resource when compared with the drilling in the maiden resource. This pumping test is an important milestone as it adds considerably to our knowledge for the resource model and the preliminary design of a production well field. We look forward to working through the data as we update the mineral resource and deliver the first PEA at the CVS Project.”*

This pumping test was designed and supervised by Pure Energy’s hydrogeological consulting specialists, Montgomery & Associates (“Montgomery”). The test was performed in accordance with State of Nevada waivers and permits issued to Pure Energy by the Nevada Division of Water Resources and the Division of Environmental Protection, which allowed for the extraction of brine from the well for the extended duration of this test and subsequent discharge to surface.

Quality Assurance

Patrick Highsmith, Certified Professional Geologist (AIPG CPG # 11702), is a qualified person as defined by NI 43-101, and has supervised the preparation of the scientific and technical information that forms the basis for this news release. Mr. Highsmith is not independent of the Company as he is an officer and director.

About Pure Energy Minerals Ltd.

Pure Energy is a lithium resource developer that is driven to become a low-cost supplier for the burgeoning lithium battery industry. The Company is currently focused on the development of the CVS Lithium Brine Project and the adjoining Glory Lithium Clay Project in Clayton Valley, Nevada. Pure Energy also recently announced the acquisition of a purchase option on a major new lithium brine project in the Lithium Triangle of South America, the Terra Cotta Project (TCP). The TCP is located on Pocitos Salar in Salta, Argentina, where it enjoys some of the best infrastructure and access of any lithium brine exploration project in the country. Execution of the definitive agreement concerning the Terra Cotta purchase option is expected during Q1 of 2017.

Pure Energy has developed core strengths in innovative development and processing technologies for lithium brines and lithium mineral deposits. The Company’s key attributes and activities include:

- Generating positive results on a large land position with excellent infrastructure in a first-class mining jurisdiction: approx. 11,000 acres in four main claim groups in Clayton Valley, Esmeralda County, Nevada;
- The only lithium brine resource in North America except for its neighbor, which is the only producing lithium operation in the United States (Albemarle’s Silver Peak lithium brine mine);
- An inferred mineral resource containing approximately 816,000 metric tonnes of Lithium Carbonate Equivalent (LCE) at an average grade of approximately 102 mg/L lithium, reported in accordance with NI 43-101 (see July 2015 Inferred Resource Report);

- An advanced program of testing the efficacy and economics of modern environmentally-responsible processing technologies to convert the CVS brines into high purity lithium products for new energy storage uses;
- A new early stage exploration program on the 13,000 hectare Terra Cotta Project (TCP), located on Pocitos Salar in Salta Province; and
- An active business development program, applying its expertise to the evaluation of new lithium targets around the world.

On behalf of the Board of Directors,

“Patrick Highsmith”
Chief Executive Officer

Forward Looking Statements: The information in this news release contains forward looking statements that are subject to a number of known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those anticipated in our forward looking statements. Factors that could cause such differences include: changes in world commodity markets, equity markets, costs and supply of materials relevant to the mining industry, change in government and changes to regulations affecting the mining industry. Forward-looking statements in this release may include statements regarding mineral processing, adaptation of test work to larger scale and/or future operational scales, estimates of reduced future capital and operating expenses, delivery of a preliminary economic assessment, future exploration programs, operation plans, geological interpretations, and mineral tenure issues. Although we believe the expectations reflected in our forward looking statements are reasonable, results may vary, and we cannot guarantee future results, levels of activity, performance or achievements.

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