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Press release – for immediate distribution

PUREVAPtm PILOT PLANT TESTING STARTING EARLY WITH COMMISSIONING OF HPQ 1/250 SCALE PILOT EQUIPMENT

HPQ Silicon Resources Inc ("HPQ") (TSX Venture: HPQ) is pleased to advise shareholders that an advanced, second stage bench testing program is about to commence. PyroGenesis Canada Inc (PyroGenesis) has informed HPQ that the *Gen 2 PUREVAPtm Quartz Reduction Reactor ("QRR") reactor,* 1/250 scale model of the planned 200 tonnes per annum (tpa) Pilot Plant will be operational in the coming weeks.

Bernard J. Tourillon, Chairman and CEO of HPQ Silicon stated, "The design and construction of the Gen 2 PUREVAPtm QRR is another exciting step toward commercialization and is a result of the collaborative efforts of PyroGenesis and HPQ. Building on our success to date the Gen 2 PUREVAPtm QRR will allow for further refinements to the silicon purification and testing of the numerous process improvements now planned for the Pilot Plant. This will greatly de-risk our project and provide valuable information sooner as we continue to make the process adjustments needed to produce Solar Grade Silicon Metal."

GEN 1 *PUREVAPtm QRR REACTOR*: SUCCESSFUL AND NOW BEING RETIRED

The first generation batch lab scale *PUREVAPtm QRR* (now referred to as Gen 1 *PUREVAPtm*) was built to prove the concept that *quartz* could be transformed *in one step* into *Silicon Metal* (*Si*), for the solar panel industry. A series of tests using the *Gen 1 PUREVAPtm* were ordered (September 2, 2016 PR) to generate key technical data required for the design of the 200 tpa pilot plant capable of producing Solar Grade *Si* (*SoG Si*). The *Gen 1 PUREVAPtm* process succeeded, demonstrating significant impurity removal, in one step, transforming low purity *SiO₂* (*Quartz*) into *3N+ Purity Si* (*99.97% Si*) (*May 16, 2017 PR, January 26, 2017 PR, November 29, 2016 PR, November 2, 2016 PR and September 29, 2016 PR*). This product exceeds the highest purity level of the Metallurgical Grade Silicon Metal (Mg Si) industry, a US\$5.5 billion dollar per year industry¹.

Our next key milestone is to produce quantities of solar grade silicon for testing of its electrical characteristics, sending material to industry participants and finalize Pilot plant design en route to commercialization. CEO Bernard Tourillon commented, "Our Gen 1 PUREVAPtm was a great success and we believe the reactor will eventually make its way to a science and engineering hall of fame. It has currently reached its maximum operational efficiencies and nothing more could be gained by additional tests."

GEN 2 *PUREVAPtm QRR REACTOR* PRESENTS MAJOR DE-RISKING MILESTONES

The Gen 2 Purevap[™] QRR will focus on Process Refinement, Characterization, Metallurgical

¹ Source CRU, 2018 MG Si demand projected at 2,5 M tonnes, 2018 prices US\$ 2,200 per tonne (Ferroglobe)



Testing and purity improvements using the new semi-continuous feed 1/250 scale pilot-plant (May 4, 2017, PR).

Based on Gen 1 *PUREVAP*tm results, PyroGenesis completed the detailed engineering and design of the 200 tpa pilot plant, including substantial process modifications. Gen 2 *PUREVAP*tm therefore is an upgraded version of the Gen 1 *Purevap*tm that will be a true 1/250 scale replica of the planned larger pilot plant (*Gen 3 PUREVAP*tm). The *Gen 2 PUREVAP*tm is undergoing final manufacturing, assembly and testing and will be operational during the first weeks of October 2017.

The start of this new metallurgical testing program using The *Gen 2 PUREVAP*tm represents major de-risking of the Pilot Plant program for the following reasons:

- Gen 2 will allow specific process design improvements and modifications derived from Gen 1 *PUREVAP*tm test work to be implemented and perfected;
- The *Gen 2* produces larger silicon Metal (Si) samples to test improvements to the purification process;
- Gen 2 allows an intermediate step in scaling up to the Pilot Plant, mitigating that scaling up risk;
- Gen 2 will allow the following Milestones to be reached sooner than originally planned;
 - Producing larger Si samples for testing by potential purchasers;
 - Allows HPQ and Pyrogenesis to test the electrical parameters of the High Purity Si;
 - Produce enough material to send samples to Solar industry participants;
 - Provide data to demonstrate the economics of *PUREVAP™ QRR*.

PYROGENESIS CEO REMARKS

"We are pleased to join HPQ in announcing both reaching this new milestone and commencing the second stage testing program," said P. Peter Pascali, President and CEO of PyroGenesis. "I also wish to commend the team, both at PyroGenesis and HPQ, for having persevered through the many challenges to date and for all the discoveries they made along the way (the ability to transform low purity Quartz into 3N+ Silicon Metal in one step at lab scale not being the least of them). As we have said in the past, it will not be a straight line to success, but given the results to date we are more confident then ever before that we will have a commercial success. What level of success, is yet to be determined. As in all projects, delays will occur, but I firmly believe we are on the right track to have a significant impact in the high purity silicon and solar markets."

UPDATE ON SILICON METAL PURITY TESTING

Further to our June 23, 2017 press release, the company continued to work with PyroGenesis and a number of specialized laboratories on silicon analysis protocols. Specifically, efforts focus on analytical procedures, certification, and analysis turn around time. We are working with our partners to resolve the analytical bottlenecks.



Results will be reported in a comprehensive report on the proof of concept and phase one process characterization and metallurgical testing programs, being prepared by PyroGenesis.

This Press Release Is Available On The Company's <u>CEO Verified Discussion Forum</u>, A Moderated Social Media Platform That Enables Civilized Discussion and Q&A Between Management and Shareholders.

About HPQ Silicon

HPQ Silicon Resources Inc is a TSX-V listed resource company planning to become a vertically integrated and diversified Metallurgical Grade and Solar Grade Silicon Metal producer.

Our business model is focused on developing a disruptive one step High Purity and Solar Grade Silicon Metal manufacturing process (patent pending). HPQ plans to generate high yield returns and significant free cash flow within a relatively short time line. The process will have a greatly decreased carbon footprint, energy footprint, and will eliminate the use of the toxic chemical reagents and by products now in use by the current solar silicon production technologies, which fundamentally date from designs made in the mid 1900's.

Disclaimers:

This press release contains certain forward-looking statements, including, without limitation, statements containing the words "may", "plan", "will", "estimate", "continue", "anticipate", "intend", "expect", "in the process" and other similar expressions which constitute "forward-looking information" within the meaning of applicable securities laws. Forward-looking statements reflect the Company's current expectation and assumptions, and are subject to a number of risks and uncertainties that could cause actual results to differ materially from those anticipated. These forward-looking statements involve risks and uncertainties including, but not limited to, our expectations regarding the acceptance of our products by the market, our strategy to develop new products and enhance the capabilities of existing products, our strategy with respect to research and development, the impact of competitive products and pricing, new product development, and uncertainties related to the regulatory approval process. Such statements reflect the current views of the Company with respect to future events and are subject to certain risks and uncertainties and other risks detailed from time-to-time in the Company's on-going filings with the securities regulatory authorities, which filings can be found at www.sedar.com. Actual results, events, and performance may differ materially. Readers are cautioned not to place undue reliance on these forward-looking statements. The Company undertakes no obligation to publicly update or revise any forward-looking statements either as a result of new information, future events or otherwise, except as required by applicable securities laws.

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