## Saskatchewan Advantage Innovation Fund

## Wave9

Ian Cunningham, President & CEO ian@wave9.co

- Wave9 has developed artificial intelligence (AI) capable of monitoring oil wells and detecting leaks wirelessly; work that traditionally relied on human operators driving to well sites and conducting inspections.
- Remote cameras and sensors placed at sites feed information into AI software which can issue alerts to a smartphone app or tablet.
- The technology allows oil companies to reduce operating costs and improve worker efficiency, while enhancing environmental protection.
- SAIF funding was used to finalize critical hardware components and develop the decision-making capabilities of the AI.
- Wave9's technology is currently in operation in Saskatchewan and Manitoba. The company claims the software has already detected leaks on more than one occasion.

## **Ground Effects Environmental Services (GEE)**

Sean Frisky, President & CEO sfrisky@groundeffects.org

- GEE has developed a procedure to treat and repurpose water used in oil extraction that is chemical-free, reduces waste and sludge and allows producers to reuse water in their operations, significantly reducing environmental footprints.
- The ECO3 solution uses an electrical current to destabilize and remove contaminants from waste water at a fraction of the cost of current, chemically intensive treatments.
- GEE's solution will reduce producers' demand on fresh water sources.
- A prototype is currently in operation at BlackPearl Resources' Onion Lake Facility.
- SAIF funding is being used to support a large-scale commercial demonstration of the technology.

## **LiEP Energy**

Haafiz Hasham, President & CEO <a href="mailto:hhasham@liepenergy.com">hhasham@liepenergy.com</a>)

- LiEP has developed a way to rapidly extract lithium ions from concentrated brines using significantly less energy inputs. This technology has the potential to make Saskatchewan a global leader in the production of lithium for rechargeable batteries.
- Using this process, LiEP is able to refine high-quality battery grade lithium hydroxide using fewer chemical and energy inputs.
- Lithium is an integral component in batteries that power conveniences from hand-held electronics to electric vehicles and demand for lithium is projected to increase drastically as the world seeks solutions to reduce emissions through electric solutions.
- LiEP has determined the viability of the technology and will now work with Saskatchewan partners to pilot the solution in the province.
- SAIF funding is being used to support the development and scale-up of a working prototype.