

O Box 1664 Fremantle

GREENPOWER ENTERS HYPERSALINE BRINE PROJECT POTASSIUM & SULPHATE OF POTASH CONFIRMED LITHIUM POTENTIAL TO BE TESTED

Key Highlights

- ✓ Greenpower Energy subsidiary Northern Exploration Pty Ltd has lodged applications for 8 Exploration Licences (EL-31459 through to EL-31466) in the Northern Territory.
- Positive chemistry of highly saline brines confirmed and characterised by elevated concentrations of dissolved potassium, magnesium and sulphates which support the production of Sulphate of Potash to potentially supply the Australian fertiliser market.
- ✓ The initial hypersaline brines tested contain up to 216,000 mg/L of Total Dissolved Solids and tested positively for Potassium (K) and Sulphate (SO4) complementing the Greenpower fertiliser focus.
- ✓ Greenpower to test the brines for Lithium potential as no previous Lithium testing occurred.
- ✓ The regional geology within the Licence area confirms localised faulting, stratigraphy and volcanics which supports the potential for Lithium rich salts.
- ✓ Lithium testing program to be overseen and managed by Lithium experts Borg Geoscience.
- ✓ Favourable climatic conditions for potential year round production of mineral salts using conventional evaporation and crystallisation ponds.
- ✓ Commercialisation infrastructure being the Stuart Highway and the underutilised Amadeus
 Gas Pipeline traverse the Licence area.

Greenpower Energy Ltd (ASX: GPP, "**Greenpower**", "**Company**") is pleased to advise that 100% owned subsidiary Northern Exploration Pty Ltd has lodged applications for 8 Exploration Licenses ("**EL's**") covering 6,250 square kilometres of the MacArthur Basin in the Northern Territory.

Fertiliser Brine Potential

Historical petroleum well and water bore data made available to the Company indicate that the EL's have proven hypersaline brine reservoirs which have the potential to produce highly sought-after fertiliser products like Sulphate of Potash and Sulphate of Potash Magnesia. Historical logging results indicate a number of water reservoirs to be present within the EL's and assays indicate very high recorded Total Dissolved Solids ("TDS") of circa 216,000 mg/L which encompass Chloride, Potassium, Magnesium and Sulphate which are regarded to be the right chemistry mix to support the production of Sulphate of Potash to potentially supply the Australian fertiliser market.

In addition to the actual recorded Potassium, Magnesium, Sulphate and TDS's in assayed brine samples the Company has taken additional comfort from Composite Radiometrics undertaken over the EL areas which confirm the presence of Potassium rich salts being present in the Balmoral Lagoon which overlies the location of two of the petroleum wells which assayed. A snapshot of the Composite Radiometric image and location of the Balmoral Lagoon are as follows:



Note the strong potassium anomaly (Pink colour) over the Balmoral Lagoon (red box) which coincides with a low lying area (clay pan).

main road (Stuart Hwy in yellow) which runs north (to Darwin)/ south (to Alice Springs).

Note the gas pipeline which also runs north/south.

Lithium Brine Potential

In addition, a review of the regional geology covered by the EL's confirm the presence of localised and regional faulting which, when combined with volcanics intersected by previous petroleum wells drilled within the EL's, provides several technical attributes for the potential for Lithium salts to be present. Historically lithium was not a sought after commodity and hence was not covered when laboratory analysis of the brines occurred.

Referencing the Composite Radiometric map featured above and coupling this with a review of the existing well log data over the low lying clay pan area could have as much as 50 metres of unconsolidated near surface sediments which could contain zones of enhanced potassium and possibly other salts such as Lithium which the Company intends to investigate.

Two petroleum wells have been drilled over the low lying clay pan area where drilling of one of the wells was overseen by Mr Alan Flavelle who is currently extensively involved with the Company as a commercial advisor. It is the view of the Company that the clay pan area may have channelling imprints and Ground Penetrating Radar ("**GPR**") may assist to focus the proposed location for shallow drilling. In addition to the deeper hypersaline brines it is in this top 50 metres that may confirm the presence of Lithium salts similar to Albemarle who have Potassium and Lithium resources in near surface brines in their Nevada project.

The Company is also pleased that it has retained the services of Borg Geoscience, a leading Lithium consulting firm, to assist the Company as it prepares to commence activities to confirm the Lithium brine potential within the project area.

Borg Geoscience Director, Brendan Borg:

"Whilst there has yet to be any extensive exploration for Lithium brines in Australia that is not to say that they don't exist. The Northern Territory has well documented occurrences of hypersaline brines and some of the right underlying geological attributes to suggest they may contain Lithium salts."

Further details on the technical rationale regarding the Lithium salt potential follows below.

Exploration Rationale

The project area covers an area in excess of 6,500 square kilometres. near the Northern Territory township of Daly Waters.

The project area covers a part of the Beetaloo sub-basin (in turn a part of the greater MacArthur Basin). The areal extent of the Beetaloo sub-basin is geophysically defined. It is expressed as a broad negative gravity feature with eastern and western lobes separated from each other by a relatively narrow north south trending gravity high.

See the below contour map covering the Bouguer anomaly which shows the gravity expression including the central north trending positive feature which is caused by enhanced faulting.

It is postulated that this gravity feature is the locus of active mineralising events. Sediments overlying this zone are likely to be recipients of mineralising fluids. In broad terms, material of commercial interest is likely to occur in two ways:

1] As solid state mineral material;

or



2] As dissolved material in formation waters.

Contour map for Bouguer anomaly.

Note the north/south trending positive gravity feature caused by a zone of deep seated folding/faulting. Locus of migration of mineralizing fluids as area is one of low relief. Map of first vertical derivitave of magnetic intensity.

Note the linear features associated with the Cambrian age Dunmarra Dunefield.

In the Chanin #1 well some of the formation fluids exceeded 215,000 mg/L TDS whilst in the Balmain#1 well some of the formation fluids exceeded 188,000 mg/L TDS. Balmain was drilled to (inter alia) test a pronounced high conductivity layer mapped from a deep penetrating EM survey [CTEM]. Results from this survey showed the conductive horizon became more intense west of the Balmain #1 site and adjacent to the area outlined by the positive gravity feature.

On the basis of 2, commercial mineralisation in the formation waters of the middle/upper Proterozoic sediments will be tested. These minerals include potassium salts, lithium salts and boron salts. The youngest target reservoir is the Bukalara sandstone of lower Cambrian age.

The Bukalara was formed as a lower Cambrian dune field which has been preserved by Cambrian volcanics. Older targets exist within the middle/upper Proterozoic sequence. Target minerals include those normally found in hypersaline formation fluids such as sodium salts and potassium salts.

A study of the radiometric data shows that significant potassium anomalies cover an area near the Balmain exploration well. The zone of significant potassium signal is coincident with a low lying area which is part of a drainage zone emptying to the south west. The "Balmoral Lagoon" is interpreted to be zone of channel fill and will be explored for potassium and lithium salts.

Director Retirement

The Company also advises that Mr Edwin Bulseco has retired from the Board of directors effective the 6th of December. Mr Bulseco retirement comes following his involvement in Greenpowers transition phase where he was introduced to oversee a corporate restructuring which resulted in a strengthening of the balance sheet and the introduction of two additional projects. The Company Board thanks Mr Bulseco for his service and welcomes executive Mr Simon Peters to the Board.

Mr Peters is an executive working for both contractors and exploration/mining companies in both hard and soft rock mining industry. He has 12 years in management positions across 3 continents (Africa, Australia & Asia) all sections of the exploration & mining development process, including large scale and complex feasibility studies, stakeholder engagement, permits and approvals.

Mr Peters has ASX managerial experience in addition to private enterprise where his previous roles included commercial roles with Rio Tinto and Henry Walker Eltin. He holds a bachelor of engineering (mining) with Honors from Federation University Australia and an unrestricted WA quarry manager's certificate. Mr Peters is also a partner of Sustainable Project Services which provides strategic & technical management consultancy advice to government, mining and agricultural sectors.

Greenpower Executive Director, Gerard King:

"Greenpower is pleased to round our portfolio out with this 100% controlled hypersaline brine project which encompasses both exploration potential for Lithium salts but also importantly an appraisal project in Potassium and Sulphates which will further complement our fertiliser focus.

The timely introduction of the Brine project should in no way detract from the Greenpower view that the Morabisi Project has all the hallmarks of being a district scale Lithium and Tantalum Project which we will endeavour to confirm as the exploration program there is

undertaken. The combination of both Lithium projects ensures Greenpower is appropriately leveraged to the global Lithium thematic where its 100% equity interest in the Brine project and ability to earn a 74% interest in the Morabisi Project place it in an enviable position to farm down its interest to potentially bring both projects into development.

The Company is also extremely pleased to have retained the services of Borg Geoscience to oversee and assist the Company in reviewing the Lithium potential of the brine project in addition to Mr Alan Flavelle who put the brine applications and project together and where his 20+ years of first-hand experience in working in the Northern Territory including some of the wells drilled over the brine project will be particularly helpful.

Finally I'd like to thank Mr Edwin Bulseco for his assistance over the year in assisting to shape the Company to where it is today whilst also welcoming Simon to the board. We wish Ed the very best."

ENDS For further information: Gerard King Chairman of the Board



© Northern Territory Government.

This map is generated from the STRIKE for information purposes only. No guarantee of accuracy or completeness is provided.

Titles and Geoscience Information is sourced from the Northern Territory Government's Department of Primary Industry and Resources, Department of Infrastructure, Planning and Logistics and Department of Environment and Natural Resources

Topographic data sourced from Geoscience Australia and the Department of Infrastructure, Planning and Logistics

Disclaimer: The Northern Territory Government does not warrant this map as definitive, nor free from error and does not accept liability for loss caused by, or arising from reliance upon information provided herein. The information presented on this map is current to 'some date'. Future modifications may be made as new information becomes available.

Kilometres 20 40

Datum: GDA94

Printed: 02 Dec 2016 Published by and on the authority of the Northern Territory Government

1:1,414,311



60