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ASX RELEASE

EP127 Site Approval for Helium & Hydrogen Exploration

- **Sacred Site Clearance approval for EP127 marking a key step for exploration activities to commence**
- **All key desktop works and planning have now been completed, around sacred site locations, in preparation for field activities and the geochemical survey to commence**
- **Field activities and geochemical survey to commence early Q2, at the conclusion of the Northern Territory wet season**
- **The geochemical survey is designed to identify the presence of an active helium system (and hydrocarbon and hydrogen) within EP127**
- **The Company believes that while continuing to review the potential for hydrocarbons in EP127 the geology suggests that the focus should be on the rare earth gases of helium and hydrogen which would be transformative to the Company**

Global Oil & Gas Limited (“Global” or “the Company”) provides shareholders the following update regarding its planned 2021 helium and hydrogen exploration program.

The Company’s transformative exploration work program (**Permit Year 2**) is on schedule for this year. Given the company was not able to undertake its work program last year, mostly due to COVID related delays to access, a suspension of permit Year 2 and extension of the permit term has been applied for with the Northern Territory Government.

The Company has received the Sacred Site Clearance Certificate for its proposed in field geochemical survey over the western part of the permit. The Sacred Site Clearance is a key approval for the geochemical survey. The geochemical survey will be carried out in conjunction with broader field work in the permit as part of the Year 2 Work Program.

The Company expects to be in the field early in the second quarter (Q2), after the end of the wet season.

The field work will involve validation of desktop surface mapping and ambient testing for helium and hydrogen as well as the geochemical survey which involves soil sampling for helium, hydrocarbons and hydrogen.



The survey is designed to identify the presence of an active helium system (and hydrocarbon and hydrogen) within the permit, as well as over already identified Prospects and Leads.

The Company believes that while continuing to review the potential for hydrocarbons in EP127, the geology suggests that the focus should be on the rare earth gases of helium and hydrogen which would be transformative to the Company.

EP127 Exploration Program (Permit Year 2)

The exploration program is primarily designed to prove the charge of helium and better define basement structuring and potential drape over basement related targets, in addition to further delineating those prospects and leads shown in the figure below.

By analysing existing data sets and integrating existing interpretations and applying new thinking in the exploration for high value rare earth gases such as helium, Global can explore EP127 in a cost-effective manner for transformative results whilst still holding 100% working interest in the permit.

The planned Exploration Program encompasses the following principal activities:

- Regional surface and remote sensing mapping validated by field work
- Interpretation and integration of the latest gravity and magnetics data
- Update and integration of seismic data and interpretation
- Geochemical survey to establish hydrocarbon and helium charge across the permit
- Integration of results into the understanding of prospectivity and planning for Year 3 (2022) work program

A significant amount of the desktop work described above was completed in preparation for the field work and geochemical survey design.

Geological Setting and Helium Potential

The Company has previously reviewed the potential for the permit to contain the required elements to yield significant helium accumulations and is encouraged that the permit contains the key elements for the accumulation of helium.

Most significantly the area covered by EP127 shares these elements with the Amadeus Basin immediately south, where high levels of helium have been tested. The geologic elements map below shows the southern Georgina Basin and the adjacent Amadeus Basin separated by the Arunta Region.

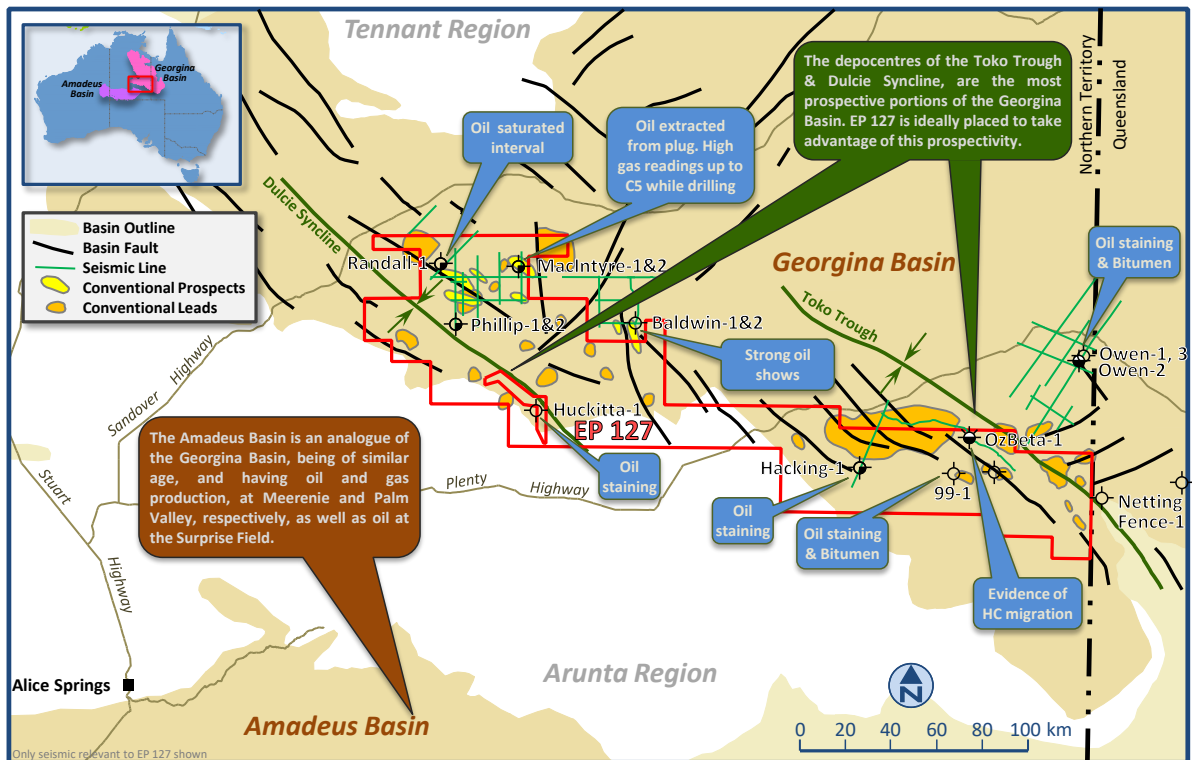


Figure 1: EP127 in relation to the Amadeus Basin

To date well penetrations and oil and gas shows in the southern Georgina Basin (EP127) have mostly been confined to the Cambrian Petroleum System. No analysis of natural gas for helium has been undertaken to determine if a Cambrian Helium System exists. Like the petroleum and helium system in the Amadeus basin, the Cambrian in the southern Georgina Basin contains evaporite and shale members with the capacity to seal helium accumulations.

The southern Georgina Basin (EP127) has a mostly untested Neoproterozoic section, equivalent to the Neoproterozoic petroleum and helium systems seen in the Amadeus Basin.

In the Amadeus basin helium rich gas (He~6%) was discovered in the Heavitree quartzite which overlies fractured Proterozoic basement. The Gillen evaporites and shales that overlay the Heavitree quartzite provide the top-seal. The concentrations seen in the Amadeus Basin are some of the highest concentrations of naturally occurring helium identified in the world to date. The uniquely high concentration of helium in some wells in the Amadeus Basin suggests that helium extraction independent of natural gas



extraction may be feasible (Waltenberg, 2015). Similar units are proposed in the southern Georgina basin since the Georgina and Amadeus basins were part of the same Centralian Superbasin from Neoproterozoic to Early Cambrian.

In addition to the presumed basement helium source in the Amadeus basin, the southern Georgina basin contains a number of 'hot shales' in the Cambrian, where the radioactive decay of uranium and thorium in the sedimentary sequences could have generated the helium.

About Helium

Helium is a high value specialty gas with unique chemical and physical qualities and is considered a strategic element. The helium market is currently undersupplied, and prices are on average (in the US which serves as a "defacto" for crude helium pricing), 100 times that of natural gas. Helium is a vital element in the manufacture of MRIs and semiconductors and is critical for fibre optic cable manufacturing, hard disc manufacture and cooling, space exploration, rocketry, lifting and high-level science. Most of the world's reserves have been derived as a by-product of the extraction of natural hydrocarbon gas.

Australia produces around 3% of the worlds supply of helium and uses approximately the same amount. Australia's helium is processed in Darwin at the BOC helium plant to A Grade liquid helium (LHe) at >99.995% He. The helium is sourced from the Undan-Bayu gasfield offshore where helium is 0.1-0.3% of the raw feed gas to the LNG plant. The field is in decline and the opportunity is to replace the helium supply. Any helium gas produced from EP127 could be transported by road and/or rail to the Darwin BOC helium plant for further purification onward distribution overseas.

Authorised by the Board of Global Oil & Gas Limited

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