



## ASX Announcement

### 22 May 2017

#### Exploration evaluation at Gräfentonna

##### COMPANY DETAILS

**Davenport Resources Limited**

**ABN:** 64 153 414 852

**ASX CODE:** DAV

##### PRINCIPAL AND REGISTERED OFFICE (& Postal Address)

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##### Capital Structure

74.0M Ordinary shares  
33.85M First milestone shares  
33.85M Second milestone shares  
6.2M Unlisted options

##### BOARD OF DIRECTORS

**Patrick McManus**  
(Non-Executive Chairman)

**Chris Bain**  
(Managing Director)

**Rory Luff**  
(Non-Executive Director)

**Angus Edgar**  
(Non-Executive Director)

**Chris Gilchrist**  
(Non-Executive Director)

##### HIGHLIGHTS:

- Estimate of a potash Exploration Target completed at Gräfentonna
- Data incorporates potash and oil drilling carried out between 1960 and 1985
- Davenport continues to work with regional and state authorities to complete drilling approvals
- Results to be incorporated into planning to achieve a JORC resource

Davenport Resources Limited (“Davenport” or “the Company”) is pleased to announce the estimation of an Exploration Target on its Gräfentonna licence of between 2.678 and 3.396 billion metric tonnes at a potash grade between 4.3% and 25% K<sub>2</sub>O. The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a mineral resource and it is uncertain if further exploration will result in the estimation of a mineral resource.

Davenport Managing Director, Chris Bain, said “The estimate of an Exploration Target at Gräfentonna is an important step for Davenport. It confirms that the known potash horizon in the South Harz basin and more particularly now in both of Davenport’s licences, Küllstedt and Gräfentonna, is extensive and has the characteristics necessary to warrant the next stage of evaluation.”

Davenport continues to work closely with regional and state mining authorities to complete the approvals necessary to move to the next evaluation stage of drilling to confirm this rich legacy of historic data.

The targets on the Gräfentonna licence will be added to the South Harz inventory for prioritizing and planning drilling programmes to achieve a JORC compliant resource on this project as soon as possible.

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The Gräfenonna Exploration Licence covers 216km<sup>2</sup> in Thuringen, central Germany (Figure 1), The South Harz region produced over 180 million tonnes of potash between 1880 and 1993 from underground mines. After Davenport's IPO in January 2017 a detailed review of the extensive historical geological and exploration data from work carried out on and around the Gräfenonna licence was commissioned.



Figure 1 Location of South Harz Exploration Licences

The Company's consultants ERCOSPLAN have completed a detailed analysis of the potash basin underlying the Gräfenonna area. The work includes modelling the basin and potash horizon architecture and analysis of previous drill holes on the licence. Although most of the historic drill holes at Gräfenonna were for hydrocarbon exploration, there was sufficient data together with Ercosplan's extensive knowledge and database of the characteristics of the potash horizon in the South Harz region to establish the Exploration Target at Gräfenonna

The Exploration Target estimate uses available drill hole and other information to interpret four salt facies areas across the Gräfenonna Exploration Licence:

- areas dominated by sylvinitite,
- areas dominated by carnallitite,
- areas probably dominated by sylvinitite,
- areas probably dominated by carnallitite.

The term "probably" refers to an assumed occurrence of a certain salt facies without having proof from drill hole information, but indication by information of drill holes in the vicinity. In addition the work incorporated information from other areas of the potash basin with sufficient exploration and exhibiting comparable deposit parameters.

In estimating the Exploration Target, the following procedures were carried out (Exploration Targets are given as mineralisation in place):

- Based on the available information, a geological model of the deposit was generated interpreting the thickness distribution of the potash-bearing salt rocks of the lithostratigraphic unit Kaliflöz Staßfurt (z2KSt). Information from drill holes was interpolated using an Inverse Distance algorithm with consideration of mapped faults. This interpolation was performed on a grid with a cell size of  $200 \times 200$  m inside the Gräfentonna Exploration Licence area and inside the areas that are interpreted as dominated or probably dominated by carnallite or sylvinite. Each cell was assigned an average thickness value, derived from interpolation of the isopac model. (Figure 2) The total volume of the cells was calculated giving a **total volume of 1.464 km<sup>3</sup>** for the Exploration Target of the Gräfentonna Exploration Licence Area.
- The volume calculated for the potash-bearing salt rocks of the lithostratigraphic unit Kaliflöz Staßfurt (z2KSt) was multiplied with a tonnage factor depending on mineralisation (density). This **average density of the Exploration Target varies between a minimum of 1.83 t/m<sup>3</sup> and a maximum of 2.32 t/m<sup>3</sup>**, depending on the mix of potash bearing salts on the potash horizon. This amounts to a **tonnage range of the Exploration Target between a minimum of 2,679 and a maximum of 3,396 million metric tonnes of mineralised rock** for the Gräfentonna Exploration Licence area.
- The related tonnages of K<sub>2</sub>O were obtained by multiplying the tonnage of mineralized rock with the corresponding K<sub>2</sub>O grade of the potash-bearing salt rocks of the lithostratigraphic unit Kaliflöz Staßfurt (z2KSt). The **K<sub>2</sub>O grade of the Exploration Target ranges from 4.3% to 25%**, derived from the Exploration Target estimate of the Kullstedt Exploration Licence area. For the Gräfentonna Exploration Licence area **K<sub>2</sub>O tonnage of the exploration target ranges between a minimum of 115 and a maximum of 849 million metric tonnes of K<sub>2</sub>O**.

**No geological or technical cut-off values for thickness or grades has been applied.**

Taking into account all the factors analysed, Davenport's consultants opined that the potash-bearing salt rocks of the lithostratigraphic unit Kaliflöz Staßfurt (z2KSt) can potentially be extracted by conventional underground or solution mining techniques. The economic and technical viability are subject to further geological, geophysical, rock mechanical and engineering studies.

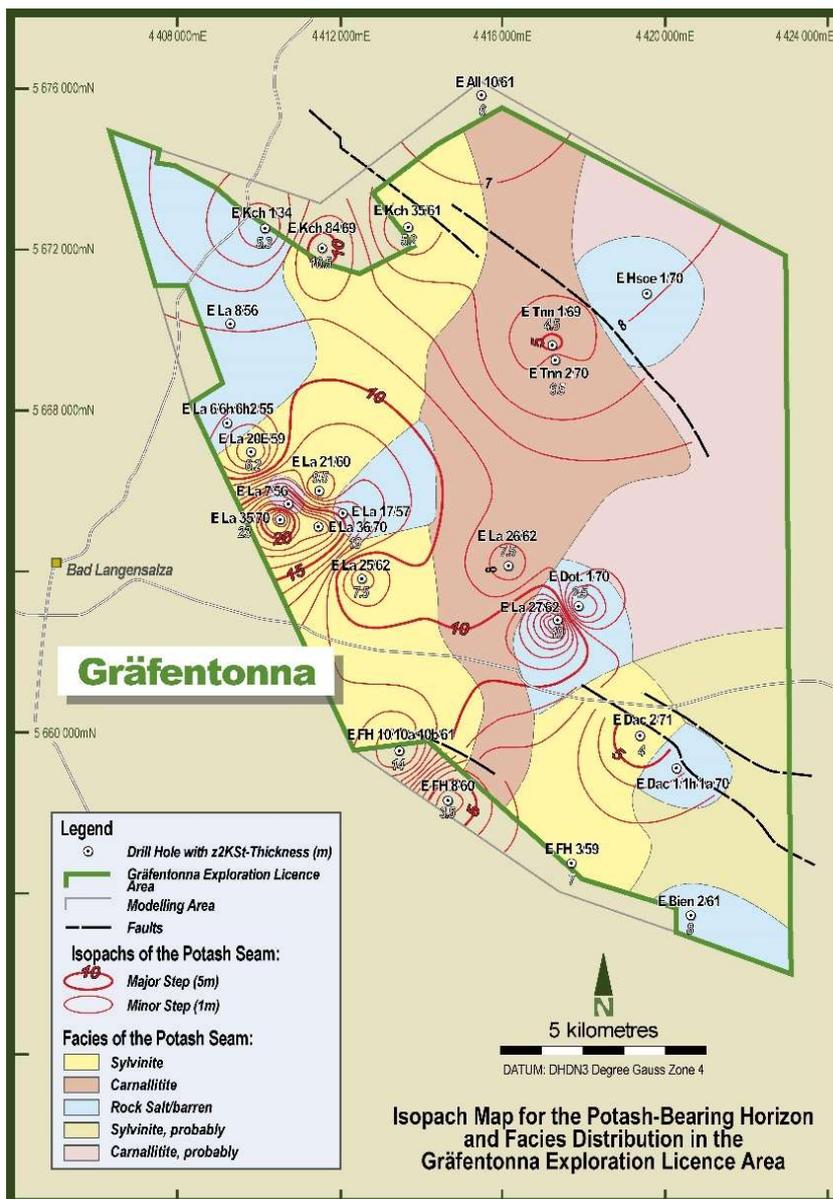


Figure 2 Gräfentonna licence potash isopach map

### Next Steps

Davenport is progressing the planning of a drilling programme on the Kullstedt licence approximately 30km to the north of Grafentonna. Kullstedt also has a large Exploration Target reported ( see Davenport second Replacement Prospectus, dated 24 October 2016). The data for Grafentonna will be incorporated with Kullstedt and the priority drilling targets established, with the objective of outlining a JORC Resource for the South Harz project.

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**About the South Harz Potash project**

Davenport holds two potash exploration licences in Germany's Thüringen State. The licences cover a combined total area of 457 km<sup>2</sup> on the southern section of the South Harz potash basin. Historic drilling and mining in the basin demonstrate that the licences are underlain by a continuous potash horizon.

**ENQUIRIES****Investors:**

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**Competent Person Statements**

The South Harz Potash Project data in this report is based on information reviewed by Jason Wilkinson, a member of the Professional Member of the Institute of Materials, Minerals & Mining (MIMMM) and an employee of Davenport Resources Limited. Mr Wilkinson has sufficient experience that is relevant to the style of the mineralisation and the type of deposit under consideration and to the activity to which he is undertaking, to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Wilkinson has consented to the inclusion of this information in the form and context in which it appears in this report.

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