

DRILLING AND BULK SAMPLING PLANS AT ARIES KIMBERLITE COMPLEX

HIGHLIGHTS

- Drill Program Designed to Test the Ultimate Surface Extent of the Greater Aries Kimberlite Complex
- Shallow Closely Spaced Drilling Proposed to Evaluate Diamond Grade Distribution Near Surface
- Drill Results to Guide Future Bulk Sampling Programme at Aries
- Bulk Sampling will be Designed to Assess Macrodiamond Grade, Size Distribution and Quality
- Deeper Drilling will Test Increases in Diamond Grade with Depth and a Potential Southern Dyke
- Microdiamond Grade Increase 1140% with from surface to 277.7m Depth in AN15
- The Main Aries Kimberlite Pipe is the Largest Known Diamondiferous Kimberlite Pipe Complex in Australia. The Recent Magnetism Show that Aries:
 - Has a footprint of over 20Ha (200,000m²) at 400m depth
 - Extends to at least 900m vertical depth (Refer Figure 2), and
 - Has Potential for unique and valuable gem quality diamonds

Odessa CEO confident of Aries diamond potential

Odessa's CEO, Alistair Stephens, commented: "There has been no significant exploration at Aries in nearly 2 decades and the diamond market has changed significantly in recent years making Aries a very attractive development project today. Aries will now be assessed with the detail needed to determine its true size and its capacity to supply high-value, gem-quality diamonds. This kick-off drilling and sampling program will for the first time define the accurate surface outline of the greater kimberlite complex at Aries, diamond grade potential, and gem qualities. With the amount of work planned for 2022, we expect an exciting year for Odessa shareholders."

Odessa Minerals Limited (ASX: ODE) (Odessa or the Company) is pleased to announce that detailed planning is underway to drill the Aries Kimberlite Complex in the Kimberley Region of Western Australia.

Drilling to test the kimberlite diamond complex total footprint

The closely spaced drilling programme over a 1,500m x 500m area of the pipes will test the link from Aries North, Aries Central, and Aries South (consisting of Helena, Athena, Persephone and Niobe blows), as one large diamondiferous complex (Figure 1). Recent Odessa work has determined that the kimberlites in this combined system are both magnetic and non-magnetic, thereby providing scope for an overall project size increase. This drilling will, for the first time in Aries exploration history, define the true surface kimberlite expression.

Drilling to lead bulk sample site selection

The shallow drilling to depths of 50m to 100m, will also be analysed for microdiamond counts to provide an accurate grade distribution from surface to the base of drilling. These microdiamond results will provide guidance for optimising the location for the best bulk sampling sites.

Large Kimberlite footprint of at least 1.5km x 500m

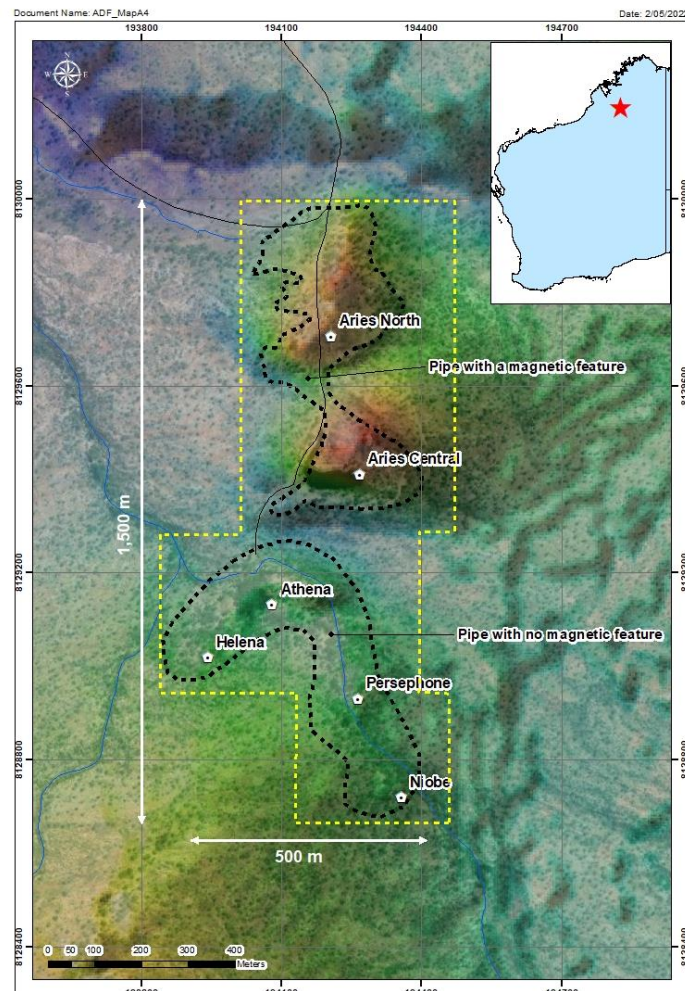


Figure 1: Area to be close-space drilled to 50m depth and location of kimberlite pipe at Aries Complex

Aries - Grade Increases with Depth

Data analysis of historic diamond records is being processed to understand diamond size and grade distribution. Most diamondiferous pipes have a direct correlation between macrodiamond and microdiamond counts, and the increasing microdiamond grade is therefore, a proxy for increasing macrodiamond grade. This information is currently being used in the design of a deeper drilling programme and future metallurgical test work.

**Microdiamond
grade increases
1140% with
depth**

The database has currently captured 961 drill hole locations and 1,552 sites of surface geochemistry. The data demonstrates that microdiamond grade increases at Aries North:

- From 10 counts per 100kg at 21.5 to 52.5 metres below surface
- To 38 counts per 100kg at 121.7 metres below surface
- To 124 counts per 100kg from 277.7 metres below surface¹

This represents a 1140% increase in grade from near surface to depth.²

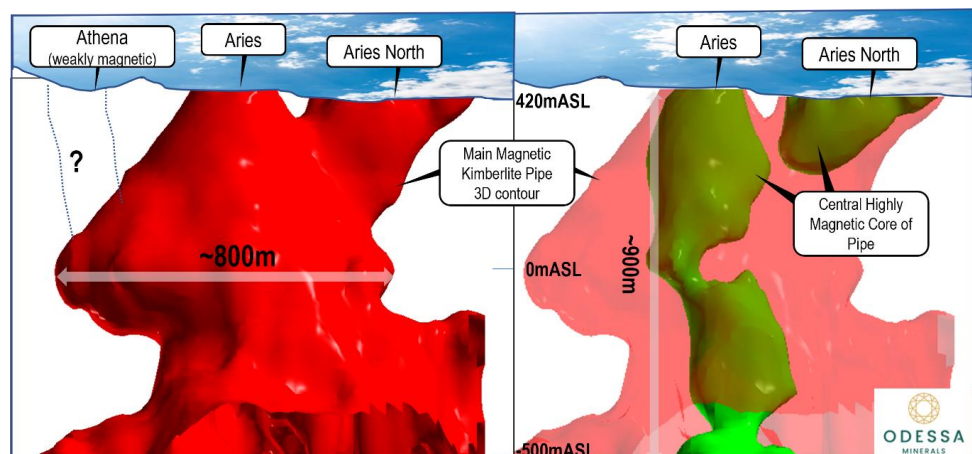
Inspection of historic drill holes in the Western Australian Core Library shows the pipe at surface has a greater proportion of dilution than previously prognosed and the potential, therefore, exists for significant grade increases with depth into the pure kimberlite rocks.

Previous diamond bulk sampling has only tested the kimberlite within the top 48m of the pipes at the Southern Lobe and within 20m at the Central Lobe. It is likely that the increase in micro-diamond grade with depth is most likely related to less wall rock dilution and therefore the potential for higher grade diamond-bearing kimberlite.

**Shallow drilling
complemented
with deep drilling**

Using positive correlations with the available microdiamond to macrodiamond data and using microdiamond data where macrodiamond data is incomplete, the Company is planning to test the areas of high microdiamond count at depth in order to understand the likelihood of the area to host a significant diamond source.

Several holes will be drilled south of the main pipes to test the potential for a kimberlite dyke south of the main pipe.



¹ As reported and reviewed in the Company's prospectus/independent geologist report on Page 28, Table 3.3

² Refer to ASX announcement "Exploration Strategy Overview" dated 15 February 2022, Page 5

Figure 2: Geophysical modelling the Aries Kimberlite pipe that have magnetic signatures.

Timing of Aries Drilling

Drilling contract award in progress

Odessa's Management is advancing all the necessary permissions for site access for this 2022 exploration programme. Detailed planning for sourcing the appropriate drill rigs and bulk sampling plants is underway with the aim of the drills being on-site in the coming months. The Company will update shareholders on material information regarding this drilling programme as information becomes available.

This announcement has been approved for release by the Board of Odessa Minerals.

ENQUIRIES

Alistair Stephens | CEO

astephens@odessaminerals.com.au

M: +61 488 992 544

Investor & Media Relations

info@investability.com.au

M: +61 401 094 261

General Enquiries

info@odessaminerals.com.au

www.odessaminerals.com.au

ABOUT ODESSA MINERALS

Odessa Minerals Limited (ASX: ODE) (Odessa) is a diamond mineral exploration company based in Perth, Western Australia with strategic intent to become a producer of ethically sourced, low environmental impact, gem quality diamonds.

Odessa holds 20 granted and application exploration licences which constitute the Aries, Ellendale, Calwynyardah and Noonkanbah Projects in a portfolio of 2,600km² in the Kimberley region of Western Australia. All are prospective for diamonds. The Aries Project is located in the central Kimberley region of Western Australia, approximately 300 kilometres east of Derby, and has gem quality diamonds identified from exploration since 1986.

Please visit our website for more information and to sign up to receive corporate news alerts:

www.odessaminerals.com.au

The information in this report that relates to Exploration Results for the Aries Project is extracted from the Company's Prospectus released on 19 November 2021 which is available at www.odessaminerals.com.au/asx-announcements/ and subsequent market releases to the Australian Stock Exchange. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original



market announcements in relation to the exploration results. The Company confirms that the form and context in which the competent persons findings have not been materially modified from the original announcement.

