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Companies Announcement Office Australian Securities Exchange Limited Level 6, 20 Bridge Street Sydney NSW 2000

Via E-lodgement

## Re-commencement of Fe Resource definition drilling at Ondjou Prospect, Namibia

Diamond drilling program now underway at Ondjou:

- > 5,000+m diamond drilling program scheduled over next three months
- > Resource drilling occurring within a 1 Billion tonne+ exploration target\* area
- > Southern extension of Fe mineralisation covers 6kms+ of strike length
- > Target Fe mineralisation from surface; width and continuity now being tested
- Continuing local involvement and regional assistance

### Corporate and Operational Matters

- > Discussions and ongoing engagement with stakeholders; port, rail, infrastructure
- > Completion of local, senior geological appointments
- Finalisation of university bursary

Namibian explorer **Avonlea Minerals Limited** ("Avonlea" or "Company" ASX: **AVZ**) is pleased to provide the following update to shareholders regarding the recommencement of exploration activities at Ondjou and recent developments regarding corporate and operational initiatives. The Company is now seeking to progress it's 0.5BT inferred Fe resource and 2.7BT to 3.4BT exploration target\* size from its current exploration program.

## Exploration

#### Ondjou Prospect

Avonlea finalised the current drilling program over the past month in consultation with local drillers. The initiation of this next phase at **Ondjou Prospect** has served to minimise the disruption from seasonal rain, to ensure continuity of drilling activity from commencement. The program is estimated to proceed over the next three months.

The program will comprise 26 holes from approximately of 5,000m+ of diamond drilling, over the southern extension of Ondjou and will seek to expand the current JORC compliant Fe Resource of 521 million tonnes within the exploration target size\* outlined and announced to ASX on 14 December 2010. The current area of activity is highlighted below in Figure 1 below; additional technical detail is shown in Appendix 1.

This exploration target\*size of between 1.0 to 1.5 Billion tonnes of Fe rich mineralisation, at average grade of 24% Fe (head), was compiled using drilling data, surface mapping and aeromagnetic data together with the recent assay results from the 3,400m RC drilling program at the Ondjou ("Elephant") Prospect (see Figure 2). The exploration target was modelled with an average width of mineralisation of ~90m with an average dip of 30° and a vertical depth from surface outcrop to approximately 200m. The SG attributed to the tonnage is based on an average of 3.2 gained from the drilling data.

\* This target mineralisation tonnage and grade is conceptual in nature as there has been insufficient exploration completed to define a Mineral Resource in accordance with the JORC Code (2004), and it is uncertain if further exploration will result in the determination of a Mineral Resource.



#### Figure 1: Ondjou Prospect (north/south plan view)



Exploration target shown in purple; current JORC resource represented in green. RC collars shown in red. Planned diamond drill holes (26) in black.



#### Figure 2: RC drilling at Ondjou north in 2010



Figure 3: Avonlea geologist indicating Fe rich outcrop in escarpment (dark grey outcrop).





The current diamond drilling program is targeting the footwall contact of the main mineralised unit (as this is undercover of Quaternary sediments) and delineate the mineralised sequence in the south of the tenement stepping north; note Fe rich mineralisation forms a minor escarpment (see Figure 3 above). Drilling will attempt to delineate more of the high grade zones identified from earlier drilling and extend the current JORC compliant resource base to the length of the exploration target.

### Thresher and Hammerhead Prospects

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In addition to the Ondjou prospect, the Company announced to the ASX on 30 November 2009 an exploration target size of between 1 to 1.9 billion tonnes\* in respect to the Hammerhead and Thresher Prospects on EPL 4129.

To assist with the revision and generation of additional targets prior to the commencement of drilling at these prospects, the company has been reassessing the magnetic characteristics of the samples collected from portions of the 31 kms of surface channel sampling previously undertaken; results are pending.

\* This target mineralisation tonnage and grade is conceptual in nature as there has been insufficient exploration completed to define a Mineral Resource in accordance with the JORC Code (2004), and it is uncertain if further exploration will result in the determination of a Mineral Resource.

# **Corporate and Operational Matters**

The Company was represented at the Cape Town Mining Indaba conference in early February before proceeding to Namibia to progress a number of local initiatives, including continuing dialogue with government advisors and stakeholders in respect to the proposed deep-water port at Cape Fria/Angra Fria, and associated infrastructure issues.

## Angra Fria Port and Rail Initiatives

On 11 November 2010, the Ministry of Works and Transport requested proposals from parties to draft the Terms of Reference to carry out a detailed feasibility for a new port facility at Angra Fria, Namibia. The prefeasibility study, completed in 2008, had already identified Angra Fria as a suitable site for the development of an inland harbour. In addition, the feasibility study will address additional infrastructure requirements such as railway, road link, power, water supply and township development at Angra Fria.

The proposed port facility at Angra Fria is strategically significant to Avonlea as it works towards enhancing the already significant Fe prospectively on its current and pending EPL's located within this province.

Future meetings between the various Namibian stakeholders and representatives for Avonlea are scheduled to occur during the June quarter 2011 to assist in the process generally; but specifically to provide public information in the context of the ongoing development potential from any large scale Fe Resource and the expected infrastructure requirements to be assessed with the current feasibility study.

#### Employment and Educational initiatives

The Company also formalised the employment of three key local geological personnel and has started to implement a succession and career development program through the introduction of a University bursary for a geology honours student.

The company recognises the need to continue to develop and engage local Namibian personnel where practical and possible in its exploration development activities.

Yours Faithfully

David Riekie MANAGING DIRECTOR

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About Avonlea 

The information in this report that relates to Exploration Results is based upon information compiled by Mr Alex Aitken a member of The Australian Institute of Geoscientists, Mr Alex Aitken is a full time employee of the company, Mr Aitken has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to gualify as a Competent Persons as defined in the 2004 edition of the 'Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Aitken has consented to the inclusion in the report of the matters based on his information in the form and context in which it appears. The 2010 Ondjou Magnetite Iron Inferred Mineral Resource Estimate was undertaken by Leonora Hackman of Hackman & Associates Pty. Ltd. Leonora Hackman is a member of the Australasian Institute of Mining and Metallurgy and has sufficient experience relevant to the style of mineralization and type of deposit under consideration and to the activity undertaken to qualify as Competent Persons as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2004 Edition). This Statement is intended for the sole and exclusive use of Avonlea Minerals Limited and must be accompanied by statements clarifying tenure, environmental, social and other material issues that may affect the economic exploitation of the mineralisation by Avonlea Minerals or any associated company The information in this report that relates to Hammerhead and Thresher Exploration Results and Exploration Targets is based upon information compiled by Mr Chris Shaw and S. A. Hibbird who are both members of The Australian Institute of Mining and Metallurgy. Mr Shaw and Mr Hibbird are independent consultants to the company. Mr Shaw and Mr Hibbird have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and tp the activity which he is undertaking to qualify as a Competent Persons as defined in the 2004 edition of the 'Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr's Shaw and Hibbird consent to the inclusion in the report of the matters based on his information in the form and context in which it appears. See ASX announcement dated 30 November 2009 for further details.

Avonlea Minerals Limited (ASX: AVZ) is an Australian publicly listed exploration company based in Perth, Western Australia. It operates with a board experienced in African exploration and corporate matters.

AVZ through its local subsidiaries in Namibia has accumulated an exciting portfolio of Exclusive Prospecting Licences (EPL's). The company has applied for EPL's covering 9,500sq km (4,127kms remain pending) and are considered prospective for Iron Ore, Precious and Base metals, REE and Vanadium.

AVZ announced on 14 December 2010 details of a JORC compliant Fe Resource estimate of 521 million tonnes from its Ondjou Prospect; drilling is continuing to expand on this base. In addition the company has released details of the potential Exploration Target size of its prospect of between 2.7 to 3.4Bt from this and it's other Fe prospects.

Namibia is generally considered to be one of the more desirable places in Africa to explore for minerals based on the stable political environment and mining culture.

Additional information can be found on Avonlea's website: <u>www.avonleaminerals.com.au</u>



# **Appendix One**

Inferred Resource Domain	Million Tonnes	Fe% Head	SiO2% Head	Al2O3% Head	DTR Wt. %	Fe% DTC	SiO2% DTC	Al2O3% DTC
Low Grade Zone (LG)	3	21	45	3.7	12	57	15	1.0
Main Zone (FEST)	486	24	43	3.7	20	64	8	0.5
High Grade Zone (HG)	32	27	39	3.3	26	65	7	0.4
Total	521	24	42	3.7	20	64	8	0.5

The maiden JORC compliant inferred Resource of 521 million tonnes of Fe is shown in Table 1 below.

Table 1 Summary: Inferred JORC compliant Fe resource - Ondjou Prospect Note numbers have been rounded

Note DTR Wt %= Davis Tube recovery % and DTC%= Davis Tube Concentrate. Resource has been calculated with a 10% DTR Wt% cut off.

(1) This inferred Resource was prepared in conjunction with independent consultants, Hackman and Associates. Details relating to the calculations, assumptions and data set used for this inferred category, Resource determination in accordance with the guidelines of the JORC Code (2004) are shown in Appendix One to the announcement in 14 December 2010.