

ABN 68 123 184 412

# PROSPECTUS

# For an offer of 17,500,000 Shares at an issue price of 20 cents per Share to raise \$3,500,000.

### THE OFFER IS NOT UNDERWRITTEN

Applicants should read the entire Prospectus for the purposes of making an informed assessment of the assets and liabilities, financial position and performance and prospects of Avalon Minerals Ltd and the rights and liabilities attaching to the Shares offered pursuant to this Prospectus.

The Shares the subject of this Prospectus should be considered speculative.

Please refer to Section 4 of this Prospectus relating to Risk Factors.

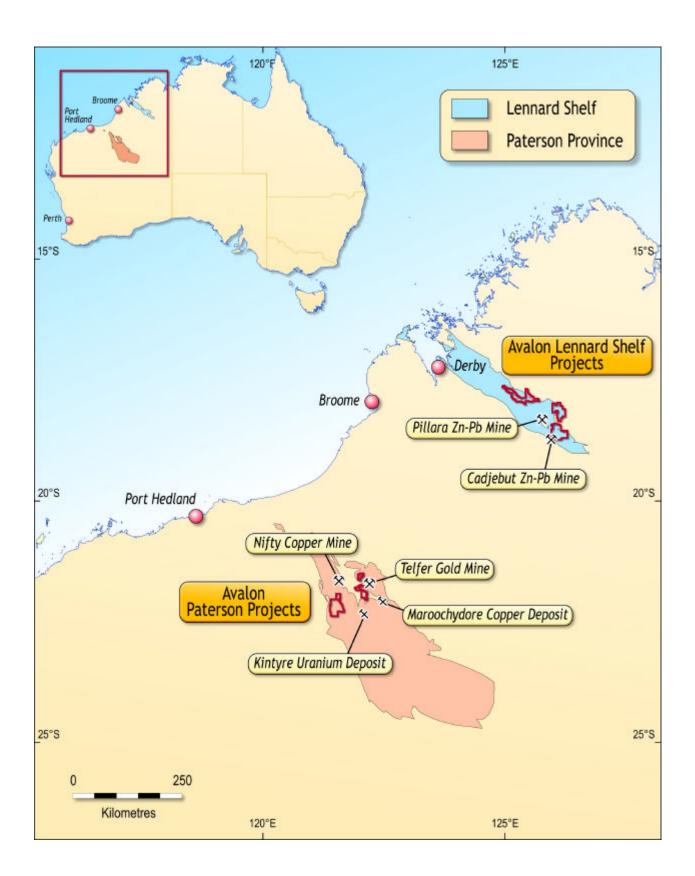
If you do not understand this Prospectus, you should consult your accountant, stockbroker, lawyer or other professional adviser before deciding to invest.

# **Investment Summary**

- Avalon Minerals was incorporated on 20 December 2006 for the purpose of mineral exploration, development and project generation in Australia and overseas. The Board of Avalon Minerals have technical and corporate experience in the minerals sector.
- Avalon Minerals in its own right and on completion of the Offer will be the holder of 3 granted mineral exploration licences and 18 mineral exploration licence applications in North Western Australia for a total of 4,000 km<sup>2</sup>.
- Avalon Minerals has identified 2 project areas Lennard Shelf and Paterson Range which it intends to explore and evaluate.
- An investment in Shares the subject of this Prospectus is highly speculative as a result of the nature of the Company's business as an early stage mineral exploration company. No investment should be made if the loss of that investment would have a temporary or permanent material effect on the personal financial circumstances of the investor.
- Specific and general risks are outlined in Section 4. A significant risk as a mineral exploration company is that there can be no assurance that the Company's exploration activities will result in the discovery of a significant mineral resource. Even if a significant mineral resource is identified, there is no guarantee that it can be economically exploited.

This information is a selective overview only and should be read in conjunction with the more detailed information appearing elsewhere in this Prospectus. Investors should read this Prospectus in is entirety and not rely solely on this overview.

# AVALON MINERALS LTD Location of projects



## **Corporate Directory**

Directors

**Company Secretary** 

**Registered Office & Principal Place of Business** 

**Postal Address** 

Email

Website

**Independent Consulting Geologist** 

Solicitor's Report on the Tene ment

Independent Accountant and Auditor

**Share Registry** 

David McSweeneyExecutive ChairmanGary SteinepreisNon-Executive DirectorStephen StoneNon-Executive Director

Gary Steinepreis

Level 1 33 Ord Street West Perth WA 6005 Telephone: (08) 9420 9300 Facsimile: (08) 9481 2690

PO Box 637 West Perth Perth WA 6872

info@avalonminerals.com.au

#### www.avalonminerals.com.au

Walter Witt 5/26 Florence Street West Perth WA 6005

Steinepreis Paganin Level 4, Next Building 16 Milligan Street Perth WA 6000

Ernst & Young The Ernst & Young Building 11 Mounts Bay Road Perth WA 6000

Computershare Investor Services Pty Limited Level 2, Reserve Bank Building 45 St. George's Terrace Perth WA 6000 Investor enquiries: 1300 557 010 Telephone: (08) 9323 2000 Facsimile: (08) 9323 2033

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#### IMPORTANT DATES AND NOTICE

SUMMARY OF IMPORTANT DATES	
Lodgement of Prospectus with ASIC	9 February 2007
Opening Date	16 February 2007
Expected Closing Date	12 March 2007
Despatch holding statements	15 March 2007
Initial quotation of Shares	19 March 2007

The dates set out above are indicative only and may vary. The Company reserves the right to vary the Opening Date and Closing Date of the Offer without prior notice. This may impact on subsequent dates. Applicants are encouraged to apply as soon as possible after the Opening Date as the Offer may close earlier than the date specified above. The Company also reserves the right not to proceed with the Offer at any time before the allotment of Shares to successful Applicants.

The Directors reserve the right to allot to an Applicant a lesser number of Shares than the number for which the Applicant applies, or to reject an Application Form. If the number of Shares allotted is fewer than the number applied for, surplus Application Monies will be refunded to the Applicant in full. Interest will not be paid on monies refunded.

#### The allottees of the Shares will be determined at the sole discretion of the Directors.

#### GENERAL

This Prospectus is dated 9 February 2007 and was lodged with ASIC on that date. Neither ASIC nor ASX take any responsibility for the contents of this Prospectus. The expiry date for this Prospectus is 13 months after lodgement. No securities will be allotted or issued on the basis of this Prospectus later than 13 months after the date of this Prospectus. Securities allotted or issued pursuant to this Prospectus will be allotted or issued on the terms and conditions set out in this Prospectus.

Application will be made to ASX within seven (7) days after the date of this Prospectus for Quotation of the Shares the subject of this Prospectus.

No person is authorised to give any information or to make any representation in connection with the Offer described in this Prospectus that is not contained in this Prospectus. Any information or representation not so contained may not be relied on as having been authorised by the Company in connection with the Offer.

#### USING THIS PROSPECTUS

Before deciding to invest in the Company, potential investors should read the entire Prospectus and in particular, in considering the prospects for the Company, investors should consider the risk factors that could affect the financial performance of the Company. Investors should carefully consider these factors in light of personal circumstances (including financial and taxation issues) and seek professional advice from an accountant, stockbroker, lawyer or other professional adviser before deciding whether to invest.

A number of terms and abbreviations used in this Prospectus have defined meanings that appear in the Glossary to this Prospectus.

#### FOREIGN INVESTORS

This Prospectus does not constitute an offer in any place in which, or to any person to whom, it would not be lawful to make such an Offer. The distribution of this Prospectus in jurisdictions outside Australia may be restricted by law and persons who come into possession of this Prospectus should seek advice on and observe any of these restrictions. Failure to comply with these restrictions may violate securities laws.

#### WEB SITE – ELECTRONIC PROSPECTUS

A copy of this Prospectus can be downloaded from the website of the Company at <u>http://www.avalonminerals.com.au/Prospectus07.htm</u>. Any person accessing the electronic version of this Prospectus for the purpose of making an investment in the Company must be an Australian resident and must only access the Prospectus from within Australia.

The Corporations Act prohibits any person passing onto another person an Application Form unless it is attached to a hard copy of this Prospectus or it accompanies the complete and unaltered version of this Prospectus. Shares will only be issued upon receipt of an Application Form issued together with the Prospectus. Any person may obtain a hard copy of this Prospectus free of charge by contacting the Company on (08) 9420 9300.

#### **EXPOSURE PERIOD**

Pursuant to the Corporations Act, this Prospectus will be circulated amongst market participants during the Exposure Period. The purpose of the Exposure Period is to enable this Prospectus to be examined by market participants prior to the raising of funds. Potential investors should be aware that this examination may result in the identification of deficiencies in the Prospectus and, in those circumstances, any application that has been received will need to be dealt with in accordance with Section 724 of the Corporations Act.

Applications for Shares under this Prospectus will not be accepted by the Company until after the expiry of the Exposure Period. No preference will be conferred on persons who lodge applications prior to the expiry of the Exposure Period.

#### NO PROSPECTIVE FINANCIAL FORECASTS

The Company is a mineral exploration company in the early stage of its development and its operations are inherently uncertain. Considering this and the matters set out in ASIC Policy Statement 170, the Directors are not able at this stage to provide potential investors with any future revenue, profit or cash flow projections or forecasts.

#### SPECULATIVE INVESTMENT

The Shares offered under this Prospectus are considered speculative. There is no guarantee that the Shares offered by this Prospectus will make a return on the capital invested, the dividends will be paid on the Shares or that there will be an increase in the value of the Shares in the future.

Potential investors should carefully consider whether the Shares offered by this Prospectus are an appropriate investment for them in light of their personal circumstances, including their financial and taxation position. Refer to Section 4 for details relating to the investment risks.

#### ENQUIRIES

Enquiries relating to this Prospectus, or requests for additional copies of this Prospectus should be directed to the Company:

In person	By post	By facsimile	By telephone
Level 1 33 Ord Street	PO Box 637 West Perth WA 6872	+61 8 9481 2690	+61 8 9420 9300
West Perth WA			

The Company does not purport to give financial or investment advice. No account has been taken of the objectives, financial situation or needs of each recipient of this Prospectus. Because of this, each recipient of this Prospectus should have regard to his/her/its own objectives, financial situation and needs.

### Letter from the Chairman

9 February 2007

Dear Investor

On behalf of the Directors, I am pleased to present this Prospectus and invite you to invest in Avalon Minerals.

This Prospectus has been issued by Avalon Minerals for the purposes of the offer of 17.5 million Shares at 20 cents each to raise \$3.5 million before costs.

Avalon Minerals in its own right and, at the completion of this Offer through Xmin, will be the 100% holder of:

- The Lennard Shelf Project
- The Paterson Range Project

Avalon Minerals has identified the 2 project areas set out above with potential for several different styles of mineralisation which it intends to explore and evaluate with an initial focus on zinc mineralisation in the Lennard Shelf Project in the West Kimberky region of Western Australia. The Lennard Shelf Project is strategically located within a known world class Zinc province.

In addition to conducting exploration on its 100% owned projects, Avalon Minerals will review other acquisition and joint venture opportunities to secure new projects that meet the Company's objectives and strategies.

The Avalon Minerals Board brings together a strong combination of experience and expertise that will ensure sound management in the development and enhancement of the Company's assets.

This Prospectus includes details of the Company, the assets and proposed operations, together with a statement of the risks associated with investing in Avalon Minerals. I recommend that you read this document carefully and, if you are interested in investing in Avalon Minerals, seek independent professional advice.

On behalf of the Directors, I commend this offer to you and I look forward to welcoming you as a shareholder in Avalon Minerals.

10H

David McSweeney Executive Chairman

# **1. Investment Summary**

The information set out in this summary section is not intended to be comprehensive and should be read in conjunction with the more detailed information appearing elsewhere in this Prospectus.

#### 1.1 Company Objectives and Strategy

The Company's objective is to grow shareholder value by conducting mineral exploration, development and project generation activities. The Company will seek to achieve this by:

- exploring and evaluating the Lennard Shelf Project and, if the exploration licence applications are granted, the Lennard Shelf and Paterson Range Projects in accordance with the work programmes as detailed in the Independent Geologist's Report in Section 5 of this Prospectus; and
- identifying and evaluating other mineral resource opportunities in Australia and overseas.

#### **1.2** Purpose of the Offer and Use of Funds

It is intended to apply the funds raised from the Offer, together with existing funds to:

- explore and evaluate the Lennard Shelf Project and, if the exploration licence applications are granted, the Lennard Shelf and Paterson Range Projects, in accordance with the work programmes as detailed in the Independent Geologist's Report in Section 5 of this Prospectus;
- pay the balance of the loan monies owing as part of the acquisition of Xmin;
- identify and evaluate new mineral resource opportunities in Australia and overseas;
- meet the costs of the offer and general operating costs; and
- provide working capital.

Details of the breakdown of the proposed use of funds are as follows:

	\$
Existing cash available for operations	341,000
Total raised pursuant to the Offer	3,500,000
Total Funds Available	3,841,000
Less:	
Balance of the loan monies owing as part of the	
acquisition of Xmin	100,000
Lennard Shelf Project two year exploration	
programme - granted tenements	1,630,000
Expenses of the Offer	350,000
Administration (including working capital)	891,000
Exploration on Licence Application areas	870,000
Total Expenditure	3,841,000

The estimated use of funds is contingent upon positive progress and results from the expenditure in line with the Company's objectives and strategy. The Directors reserve the right to expend the funds of the Company for the above purpose or for related or other purposes in line with the Company's objectives and strategy. The final expenditure of funds may vary from the above in the event that any of the exploration licence applications are not granted or depending upon the circumstances in which the business develops and operates.

#### 1.3 Working Capital Adequacy

The Directors are satisfied that upon completion of the Offer, the Company will have sufficient working capital to carry out the stated objectives in this Prospectus.

#### 1.4 Capital Structure

The proposed capital structure of the Company following completion of the Offer is summarised below.

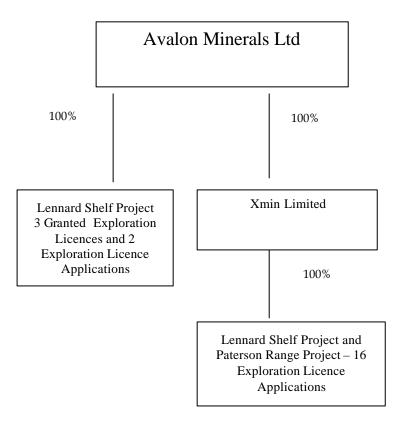
Number on Issue
17,500,000
5,000,000
17,500,000
40,000,000

Options	Number on Issue
Total currently issued	11,000,000
To be issued pursuant to Offer	-
Total on issue at completion of Offer	11,000,000

Full details of the terms and conditions of these Options are set out in Section 9.6 of this Prospectus.

#### **1.5** Corporate Structure

The Company is a public company limited by shares that is incorporated and domiciled in Australia. The corporate structure of the Company on completion of the Offer will be as follows:



# 2. Details of the Offer

#### 2.1 The Offer

In this Prospectus, the Company is offering for subscription a maximum of 17,500,000 Shares at an issue price of 20 cents per Share to raise \$3,500,000.

All Shares offered under this Prospectus will rank equally with Existing Shares. A summary of the rights and liabilities attaching to Shares, and the terms of the Options are set out in Section 9 of this Prospectus.

#### 2.2 Indicative Timetable

Lodgement of Prospectus with ASIC	9 February 2007
Opening Date	16 February 2007
Expected Closing Date	12 March 2007
Despatch holding statements	15 March 2007
Initial quotation of Shares	19 March 2007

The above dates are indicative only and may vary. The Company reserves the right to vary the dates and times under this Prospectus, including the Closing Date, without prior notice, which may impact on other dates shown above.

#### 2.3 How to Apply for Shares

An application to subscribe for Shares can only be made on an Application Form attached to this Prospectus. The Application Form should be completed in accordance with the instructions set out on the back of the Application Form and received no later than the Closing Date. Applications under the Offer must be for a minimum of 10,000 Shares representing a minimum investment of \$2,000 and thereafter in multiples of 2,500 Shares (equivalent to \$500).

Cheques should be for the full Application Monies payable and payment is required to be sent with the Application Form and made payable to "**Avalon Minerals Ltd Application Account**" and crossed "Not Negotiable." Cheques must be in Australian currency and drawn on an Australian bank.

Application Forms must not be circulated to prospective investors unless accompanied by a full copy of this Prospectus. A duly completed and lodged Application Form will constitute an offer by the Applicant to subscribe for the number of Shares applied for pursuant to the Application Form.

The completed Application Form and accompanying cheque may be lodged at any time after the issue of this Prospectus and before the Closing Date at the offices of Avalon Minerals:

By post at:		<u>In person at:</u>
PO Box 637		Level 1
West Perth WA 6872	OR	33 Ord Street
		West Perth WA 6005

The Company reserves the right to extend the Offer or to close the Offer early without notice. Applicants are therefore urged to lodge their Application Form as soon as possible.

A completed and lodged Application Form for Shares, together with a cheque for the Application Monies, constitutes a binding and irrevocable offer to subscribe for the number of Shares specified in the Application Form. The Application Form does not need to be signed to be a valid application. An application will be deemed to have been accepted by the Company upon allotment of the Shares.

The amount payable for each Share on application will not vary during the period of the Prospectus and no further amount is payable on allotment.

#### 2.4 Applicants outside Australia

This Prospectus does not constitute an offer or invitation in any place in which, or to any person to whom, it would not be lawful to make such an offer or extend such an invitation. No action has been taken to register or qualify the Shares or otherwise to permit a public offering of the Shares in any jurisdiction outside Australia.

The distribution of this Prospectus in jurisdictions outside Australia may be restricted by law and therefore, persons outside Australia who come into possession of this Prospectus should seek advice and observe any such restrictions. Any failure to comply with such restrictions may constitute a violation of applicable securities laws.

It is the responsibility of non-Australian resident investors to obtain all necessary approvals for the issue to them of the Shares under this Prospectus. The return of a completed Application Form will be taken by the Company to constitute a representation and warranty by the applicant that all relevant approvals have been obtained.

#### 2.5 Allotment of Shares and Minimum Subscription

The Minimum Subscription pursuant to the Offer is \$3,500,000.

No Shares will be allotted or issued until the Minimum Subscription has been received. If the Minimum Subscription is not achieved within 4 months after the date of issue of this Prospectus, the Company will either repay the Application Monies to the Applicants or issue a supplementary prospectus or replacement prospectus and allow Applicants one month to withdraw their Application and be repaid their Application Monies. No interest will be paid on any Application Monies repaid.

Shares issued pursuant to the Offer will be allotted within 5 Business Days after the Closing Date.

Where the number of Shares granted is less than the number applied for, or where no allotment is made, surplus Application Monies will be refunded without any interest to the Applicant as soon as practicable after the Closing Date.

Pending the issue and allotment of the Shares or payment of refunds pursuant to this Prospectus, all Application Monies will be held by the Company in trust for the Applicants in a separate bank account as required by the Corporations Act. The Company, however, will be entitled to retain all interest that accrues on such bank account and each Applicant waives the right to claim any such interest.

No securities will be allotted or issued on the basis of this Prospectus after the expiry date of this Prospectus, which will be a date not later than 13 months after the date of this Prospectus.

#### 2.6 ASX Listing

The Company will apply to ASX within 7 days from the date of this Prospectus for the Company to be admitted to the Official List and for Quotation of:

- (a) the Shares issued under this Prospectus; and
- (b) Existing Shares other than those Existing Shares that are, or that ASX is likely to treat as, restricted securities as defined in ASX Listing Rules.

If granted, Quotation of the Shares will commence as soon as practicable after the allotment of the Shares. ASX takes no responsibility for the contents of this Prospectus. The fact that ASX may admit the Company to the Official List is not to be taken in any way as an indication by ASX of the merits of the Company or the Shares offered under this Prospectus.

If the Company is not admitted to the Official List within 3 months, or such longer period as permitted by the Corporations Act, after the date of this Prospectus, none of the securities offered under this Prospectus will be allotted and all Application Monies will be refunded without interest as soon as practicable.

#### 2.7 CHESS System

The Company proposes participating in the CHESS, operated by ATSC, (a wholly owned subsidiary of ASX), in accordance with ASX Listing Rules and the ATSC Settlement Rules. On admission to CHESS, the Company will maintain an electronic CHESS sub-register and an electronic issuer sponsored sub-register. The two sub-registers together will make up the Company's register of Shareholders.

Under CHESS, the Company will not issue certificates to investors. Instead, as soon as practicable after allotment, successful Applicants will receive a statement of their holdings in the Company. If an investor is broker sponsored, the ATSC will send them a CHESS statement.

The CHESS statement will set out the number of securities allotted to each holder under the Prospectus, give details of the Shareholder's HIN and give the Participant Identification Number of the sponsor.

If you are registered on the issuer sponsored sub-register, your statement will be dispatched by the Share Registry and will contain the number of securities allotted under the Prospectus and the Shareholder's SRN. Shareholders will be required to quote their HIN or SRN, as appropriate, in all dealings with a stockbroker or the Share Registry.

A CHESS statement or issuer sponsored statement will routinely be sent to shareholders at the end of any calendar month during which the balance of their holdings changes and as otherwise required under the ASX Listing Rules and the Corporations Act. A shareholder may request a statement at any other time either directly through the Shareholder's sponsoring broker, in the case of a holding on the CHESS sub-register, or through the Share Registry in the case of a holding on the issuer sponsored sub-register. However, the Company or the Share Registry may charge a fee for these additional statements.

#### 2.8 Restricted Securities

The ASX may classify certain Existing Shares as being subject to the restricted securities provisions of the ASX Listing Rules. These Shares, or a proportion of these Shares issued, as determined in conjunction with ASX will be required to be held in escrow under the terms of the restriction agreements prescribed by the ASX Listing Rules.

#### 2.9 Financial Forecasts

The Company is a mineral exploration company in the early stage of its development and its operations are inherently uncertain. Considering this and the matters set out in ASIC Policy Statement 170, the Directors are not able at this stage to provide potential investors with any future revenue, profit or cash flow projections or forecasts.

#### 2.10 Fees Payable

The funds raised pursuant to this Prospectus are not underwritten. The Company reserves the right to pay a fee of up to 5% (plus GST) to any holder of a financial services licence with respect to any successful applications bearing their stamp.

#### 2.11 Privacy Disclosure Statement

The Company collects information about each Applicant from an Application Form for the purposes of processing the application and, if the application is successful, to administer the Applicant's security holding in the Company.

By submitting an Application Form, each Applicant agrees that the Company may use the information in the Application Form for the purposes set out in this privacy disclosure statement and may disclose it for those purposes to the Share Registry, the Company's related bodies corporate, agents, contractors and third party service providers, (including mailing houses), the ASX, ASIC and other regulatory authorities.

If an Applicant becomes a security holder of the Company, the Corporations Act requires the Company to include information about the security holder (name, address and details of the securities held) on its public register. This information must remain in the register even if that person ceases to be a security holder of the Company. Information contained in the Company's registers is also used to facilitate distribution payments and corporate communications (including the Company's financial results, annual reports and other information that the Company may wish to communicate to its security holders) and compliance by the Company with legal and regulatory requirements.

If you do not provide the information required on the Application Form, the Company may not be able to accept or process your Application.

#### 2.12 Dividend Policy

The Company has not declared a dividend since incorporation. If sufficient profits are available, the Company does intend to pay dividends however, any future determination as to the payment of dividends by the Company will be at the discretion of the Directors and will depend upon the availability of distributable earnings, the operating results and financial condition of the Company, future capital requirements, general business and other factors considered relevant by the Directors. No assurances in relation to the payment of dividends or the franking credits attached to such dividends can be given.

#### 2.13 Risk Factors

Prospective investors in the Company should be aware that subscribing for securities in the Company involves a number of risks. The key risk factors of which investors should be aware are described in Section 4 of this Prospectus. Investors are urged to consider these risks carefully before deciding whether to invest in the Company and to consult their professional adviser.

The Risk Factors set out in Section 4, and other general risks applicable to all investments in listed securities not specifically referred to in this Prospectus, may in the future affect the value of the securities. Accordingly, an investment in Avalon Minerals should be considered speculative.

#### 2.14 Enquiries Regarding the Offer

If Applicants have any queries about the Offer or how to apply for Shares, please contact your accountant, stockbroker, lawyer or other professional adviser.

# 3. Company and Project Overview

#### 3.1 Background

Avalon Minerals was incorporated on 20 December 2006 for the purpose of mineral exploration, development and project generation in Australia and overseas. The Board and management of Avalon Minerals have technical and corporate experience in the minerals sector.

#### 3.2 **Project Overview**

Avalon Minerals in its own right and, at the completion of this Offer, through Xmin is the holder of:

- 3 granted mineral exploration licences in the Lennard Shelf Project; and
- 18 mineral exploration licence applications relating to the Lennard Shelf Project and Paterson Range Project.

#### 3.3 Corporate Strategy

Avalon Minerals' vision is to grow an Australian mining company through exploration and acquisition with an initial focus on zinc mineralisation in the Lennard Shelf Project and Copper/Gold mineralisation in the Paterson Range Projects. The impact of China's growth has provided the basis for the strong fundamentals underlying the increase in the price of many mineral commodities. Given the likelihood of continuing strong global demand led by China, the Company expects that the demand for mineral commodities will remain strong. Avalon Minerals has assembled a large regional landholding in an established zinc province in the Lennard Shelf Project. This project contain untested zinc targets for Mississippi Valley styled deposits (MVT). The Company's exploration programmes and budgets will test the concepts and targets set out in the Independent Geologist's Report during 2007 and 2008.

Avalon has commenced and will maintain an active project generation and review programme for advanced projects capable of being developed with Avalon as the operator.

#### 3.4 Board of Directors and Company Secretary

#### **David McSweeney – Executive Chairman**

David McSweeney holds a Bachelor of Laws degree and is a member of the Institute of Company Directors.

Mr McSweeney has 20 years experience in the resource sector ranging from exploration to project management, project finance, commercial and legal structuring and corporate development.

A founder of Gindablie Metals Ltd, Mr McSweeney was the Managing Director from 1998 to December 2006. Mr McSweeney oversaw the discovery and commissioning of two successful gold production centres and the repositioning of Ginbalbie Metals Ltd as an emerging diversified Australian iron ore company. Gindalbie Metals Ltd's market capitalisation was \$342 million on 3 January 2007.

Mr McSweeney is also the non executive chairman of Dynasty Metals Ltd.

#### **Stephen Stone – Non-Executive**

Stephen Stone graduated with honours in Mining Geology from the University of Cardiff and has over 25 years operating, management and corporate experience in the international mining and exploration industry including 18 years as chief executive of publicly listed exploration companies. He is a Member of the Australasian Institute of Mining and Metallurgy and a Fellow of the Australian Institute of Company Directors. Mr Stone is also non-executive chairman of Azumah Resources Limited.

#### **Gary Steinepreis – Non-Executive**

Gary Steinepreis holds a Bachelor of Commerce degree from the University of Western Australia and is a Chartered Accountant.

Mr Steinepreis provides corporate management and accounting advice to a number of companies involved in the resource, technology and leisure industries. He is a director of ASX listed Toodyay Resources Ltd, Gawler Resources Ltd, RMG Limited, WAG Limited and Signature Brands Ltd, and is a director of Ascent Capital Pty Ltd.

#### **3.5** Corporate Governance

The primary responsibility of the Board is to represent and advance Shareholders' interests and to protect the interests of all stakeholders. To fulfil this role the Board is responsible for the overall corporate governance of the Company including its strategic direction, establishing goals for management and monitoring the achievement of these goals.

The responsibilities of the Board include:

- Protection and enhancement of Shareholder value.
- Formulation, review and approval of the objectives and strategic direction of the Company.
- Approving all significant business transactions including acquisitions, divestments and capital expenditure.
- Monitoring the financial performance of the Company by reviewing and approving budgets and monitoring results.
- Ensuring that adequate internal control systems and procedures exist and that compliance with these systems and procedures is maintained.
- The identification of significant business risks and ensuring that such risks are adequately managed.
- The review of performance and remuneration of executive directors and key staff.
- The establishment and maintenance of appropriate ethical standards.
- Evaluation and, where appropriate, adopting with or without modification, the ASX Corporate Governance Council's Principles of Good Corporate Governance and Best Practice Recommendations.

The Board recognises the need for the Company to operate with the highest standards of behaviour and accountability.

The Company has considered the ASX Corporate Governance Council's Principles of Good Corporate Governance and Best Practice Recommendations to determine an appropriate system of control and accountability to best fit its business and operations commensurate with these guidelines.

The Company seeks to follow the best practice recommendations for listed companies to the extent that it is reasonably able. In cases where the Company determine it would be inappropriate to follow the principles because of its circumstances, the Company will provide reasons for not doing so in its 2007 Annual Report. For example, the Board presently considers the Company's structure and scope of activities does not justify the establishment of an audit committee, preferring to manage the Company through the full Board.

# 4. Risk Factors

#### 4.1 Introduction

An investment in the Shares the subject of this Prospectus is highly speculative as the Company is an early stage mineral exploration company with an initial focus on zinc exploration. The Board recommends that investors consider the risks described below and information contained elsewhere in this Prospectus, as well as consulting with their professional advisers before deciding whether to apply for Shares.

The following is a non-exhaustive list of the risks that may have a material effect on the financial position and performance of the Company and the value of its Shares, as well as the Company's exploration, any development and mining activities and an ability to fund those activities.

The specific risks below include some of the risks specific to the Company including by reason of its involvement in the resource industry. The general risks below are some of the risks to the Company of a general economic nature.

#### 4.2 Specific Risks

#### Limited Operating History of Avalon

While the Company's management has significant experience and have previously carried out or been exposed to exploration and production activities while employed or engaged by other companies, the Company was not incorporated until 20 December 2006. Accordingly, the Company has limited historical, financial or operating information. The Company's ability to achieve its objectives depends on the ability of its Directors and officers to implement current plans and to respond to any unforeseen circumstances that require changes to those plans.

#### Exploration

Mineral exploration and mining are speculative operations that may be hampered by circumstances beyond the control of the Company. There can be no assurance that exploration on the tenements, or any other tenement in which the Company may acquire an interest in the future, whether pursuant to the exploration licence applications or otherwise, will result in the discovery of an economic mineral deposit. Even if any apparent viable mineral deposit is identified, there is no guarantee that it can be profitably exploited.

#### **Development and Mining**

The possible future development of mining operations at any of the Company's projects is dependant on a number of factors including, but not limited to, failure to acquire and/or delineate economically recoverable ore bodies, unfavourable geological conditions, failing to receive the necessary approvals from all relevant authorities and parties, unseasonal weather patterns, unanticipated technical and operational difficulties encountered in extraction and production activities, mechanical failure of operating plant and equipment, unexpected shortages or increases in the price of consumables, spare parts and plant and equipment, cost overruns, risk of access to the required level of funding and contracting risk from third parties providing essential services.

The operations of the Company may be disrupted by a variety of risks and hazards which are beyond the control of the Company, including environmental hazards, industrial accidents, technical failures, labour disputes, unusual or unexpected rock formations, flooding and extended interruptions due to inclement or hazardous weather conditions, fire, explosions and other incidents beyond the control of the Company.

#### **Resource Estimates**

Resource estimates are expressions of judgment based on knowledge, experience and industry practice. As such, resource estimates are inherently imprecise and rely to some extent on the interpretations made.

Additionally, resource estimates may change over time as new information becomes available. Should the Company encounter mineralisation or formations different from those predicted by past drilling, sampling and similar examinations, resource estimates may have to be adjusted and mining plans may have to be altered in a way which could adversely affect the Company's operations.

#### **Commodity Price Volatility**

It is anticipated that any revenues derived from mining will primarily be derived from the sale of zinc and base metals. Consequently, any future earnings are likely to be closely related to the price of those commodities and the terms of any off take agreements which it enters into.

Metal prices fluctuate and are affected by numerous factors beyond the control of the Company. These factors include world demand for zinc and base metals, forward selling by producers, and production cost levels in major zinc or base metal producing regions.

Moreover, commodity prices are also affected by macroeconomic factors such as expectations regarding inflation, interest rates and global and regional demand for, and supply of, zinc and base metals as well as general global economic conditions. These factors may have an adverse effect on the Company's exploration, development and production activities, as well as on its ability to fund those activities and the price of the Company's listed securities.

#### Title

The majority of the exploration licences in which the Company has or may earn an interest in will be subject to the grant of the applications. The terms of the grant of each licence is usually at the discretion of the relevant government authority.

Additionally, exploration licences are subject to a number of State specific legislative conditions including payment of rent and meeting minimum annual expenditure commitments. The inability to meet these conditions could affect the standing of a tenement or restrict its ability to be renewed.

If an exploration licence is not granted, the Company may suffer significant damage through loss of the opportunity to develop and discover any mineral resources on that licence.

#### Native Title and Aboriginal Heritage

The *Native Title Act 1993 (Cth)* recognises and protects the rights and interests in Australia of Aboriginal and Torres Strait Islander people in land and waters, according to their traditional laws and customs. There is a significant uncertainty associated with native title in Australia and this may impact upon the Company's operations and future plans. Native Title can be extinguished by valid grants of land or waters to people other than the native title holders or by valid use of land or waters. It can also be extinguished if the indigenous group has lost their connection with the relevant land or waters. Native title is not necessarily extinguished by the grant of mining licences, although a valid mining lease prevails over native title to the extent of any inconsistency for the duration of the title.

It is important to note that the existence of a native title claim is not an indication that native title in fact exists to the land covered by the claim, as it is a matter ultimately determined by the Federal Court. If native title rights do exist, the ability of the Company to gain access to tenements (through obtaining consent of any relevant landowner) or to progress from the exploration phase to the development and mining phases of operations may be adversely affected.

The Company must also comply with Aboriginal heritage legislation requirements which require heritage survey work to be undertaken ahead of the commencement of mining operations.

For further details refer to the Solicitor's Report in Section 6 of this Prospectus.

#### Environmental

The Company is subject to Federal and State laws regarding environmental matters and the discharge of hazardous wastes and materials in the jurisdictions within which it operates. As with all mineral projects, the Company's projects are expected to have a variety of environmental impacts should development proceed. Development of any of the Company's projects will be dependent on the Company satisfying environmental guidelines and, where required, being approved by governmental authorities.

The Company intends to conduct its activities in an environmentally responsible manner and in accordance with applicable laws, but still may be subject to accidents or other unforseen events which may compromise its environmental performance and which may have adverse financial implications.

Furthermore, the cost and complexity of complying with the applicable environmental laws and regulations may prevent the Company from being able to develop potentially economically viable mineral deposits.

#### Joint Venture Parties, Agents and Contractors

The Directors are unable to predict the risk of financial failure or default by a participant in any joint venture to which the Company may become a party or the insolvency or managerial failure by any of the contractors used by the Company in any of its activities or the insolvency or other managerial failure by any of the other service providers used by the Company for any activity.

#### **Future Capital Requirements**

The funds raised by the Offer will be used to carry out the Company's objectives (as detailed in this Prospectus). The Company's ability to raise further capital (equity or debt) within an acceptable time, of a sufficient amount and on terms acceptable to the Company will vary according to a number of factors, including:

- prospectivity of projects (existing and future);
- the results of exploration, subsequent feasibility studies, development and mining;
- stock market and industry conditions; and
- the price of relevant commodities and exchange rates.

No assurance can be given that future funding will be available to the Company on favourable terms (or at all). If adequate funds are not available on acceptable terms the Company may not be able to further develop its projects and it may impact on the Company's ability to continue as a going concern.

#### **Potential Acquisitions**

As part of its business strategy, the Company may make acquisitions of,  $\alpha$  significant investments in, companies, products, technologies or resource projects. Any such future transactions would be accompanied by the risks commonly encountered in making acquisitions of companies, products, technologies or resource projects.

#### 4.3 General Risks

#### **Economic Risks**

General economic factors such as inflation, currency exchange, industrial disruption and interest rate fluctuations, government policy and regulations, commodity prices and stock market prices may have an adverse impact on the exploration and production activities of the Company, on its ability to fund those activities and on the financial performance of the Company.

#### **Securities Investments and Share Market Conditions**

Applicants should be aware there are risks associated with any securities investment. Securities listed on the ASX, and in particular securities of mining and exploration companies have experienced extreme price and volume fluctuations that have often been unrelated to the operating performances of such companies. These factors may materially affect the market price of the securities regardless of the Company's performance. Neither the Company nor the Directors warrant the future performance of the Company or any return on an investment in the Company.

#### **Policies and Legislation**

Any material adverse changes in Federal, State or Territory government policies or legislation of Australia may affect the viability and profitability of the Company.

#### Competition

The Company competes with other companies, including major mineral exploration and production companies. Some of these companies have greater financial and other resources than the Company and, as a result, may be in a better position to compete for future business opportunities. Many of the Company's competitors not only explore for and produce minerals, but also carry out refining operations and other products on a worldwide basis. There can be no assurance that the Company can compete effectively with these companies.

### 5. INDEPENDENT TECHNICAL ASSESSMENT REPORT



THE WALTER WITT EXPERIENCE 5/26 Florence Street, West Perth WA 6005 Phone: (08) 9228 8387 Mobile: 0437 137 926 Email: <u>wittww@iinet.net.au</u> ABN 57 129 596 376

The Directors Avalon Minerals Ltd Level 1, 33 Ord Street West Perth WA 6005

#### **Dear Sirs**

This report has been commissioned by the Directors of Avalon Minerals Ltd (Avalon) to provide an Independent Technical Assessment Report (Report) on twenty one tenements located in the Kimberley region and the Paterson region of Western Australia. Three of these tenements have been granted and the rest are under application. The Report is intended for inclusion in a Prospectus to be issued by Avalon to be lodged with the Australian Securities and Investments Commission (ASIC) on or around 9 February 2007. The Prospectus will offer 17.5 million shares at an issue price of twenty cents to raise \$3.5 million. The funds raised will be used for the purpose of exploration and evaluation of mineral properties held by Avalon.

Avalon intends to explore for base metals on the Lennard Shelf Projects in the Kimberley region and for base metals, gold and uranium on the Paterson Projects.

This Report has been prepared in accordance with the VALMIN code, which has been adopted by the Australian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists and is binding upon members of those

### INDEPENDENT TECHNICAL ASSESSMENT REPORT

organizations. All resource figures quoted are consistent with the JORC guidelines.

The Report is based upon information provided by Avalon, along with relevant published and unpublished data, including reports of previous explorers on and near Avalon's exploration areas lodged with the Western Australian Department of Industry and Resources and accessible through the Department's WAMEX database. A site visit has been carried out to the Paterson region (May 2006), and to the Lawford and Barramundi Project areas in the Kimberley region (June 2006), but not to the Oscar Range Project area. The author considers that there is sufficient publicly available geoscientific data and previous exploration data to allow an informed appraisal of Oscar Range without a site visit.

The Projects described in this Report are early-stage projects incorporating conceptual targets that are based on the characteristics of significant mineralisation, including producing mines, in each of the regions. Although exploration projects are inherently speculative in nature, the tenements warrant further exploration.

The exploration budget described in the Report amounts to \$2.5 million, of which \$1.6 million is attributed to the three granted leases in the Oscar Range project. It is understood that funds may be diverted to other tenement areas, depending on the results of early stage exploration on the granted tenements.

This report addresses the geology and mineral prospectivity of Avalon's tenements. The author has made no attempt to establish the legal standing of the tenements or issues of land accessibility. These items are covered by the Independent Solicitor's Report.

During 2005-06, the author was engaged as a geological consultant by a private company, Xmin Pty Ltd (Xmin), leading to application for sixteen tenements comprising the Paterson Projects and the Lawford and Barramundi Projects. The author reviewed the geology and previous exploration results on the tenement areas and prepared Information Memorandums for Xmin. Avalon is acquiring 100% of Xmin by way of a sale agreement.

### INDEPENDENT TECHNICAL ASSESSMENT REPORT

The author has no material present or contingent interest in the outcome of this report. Nor is there any pecuniary interest that could be reasonably regarded as being capable of affecting his independence. The author's fees for completing this Report are based on his normal professional daily rates and are not contingent upon the outcome of the Report.

The author consents to this Report being included, in full, in the Avalon Prospectus, in the form and context in which it is provided, and not for any other purpose.

Yours sincerely WALTER WITT (PhD, FAIG, MGSA, FSEG)



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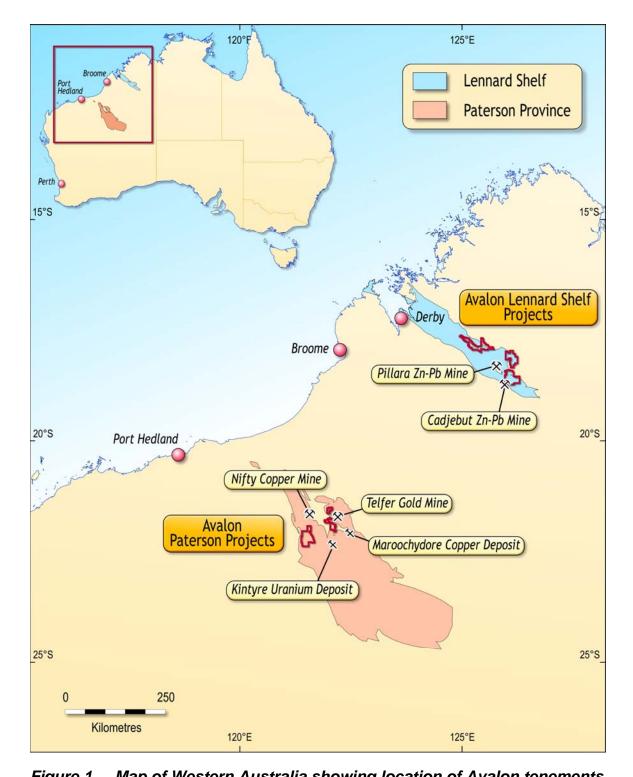
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*Figure 1. Map of Western Australia showing location of Avalon tenements in their respective geological provinces.* 

### 1. SUMMARY

Avalon has assembled a tenement package comprising fourteen exploration licenses (2,594 square kilometres) over the Lennard Shelf in the Kimberley region, and seven exploration licenses (1,409 square kilometres) in the Paterson region, of Western Australia (Figure 1). Three of the tenements in the Kimberley region are granted whereas the remaining tenements are under application.

In the Kimberley region, Avalon plans to explore for base metals (zinc and lead). The Lennard Shelf is an ancient limestone reef that hosts a world-class Mississippi Valley-Type (MVT) zinc-lead province (resources in June 2003 totalling 22.18Mt at grades of 6.9% zinc and 2.8% lead). Avalon's tenements are in central and southeast Lennard Shelf, where the largest known deposits (Pillara and Cadjebut) lie within a few kilometres of the Lawford Project.

Previous exploration has been concentrated along the southwest margin of the reef where most base metal deposits and occurrences are located. Avalon's Oscar Range tenements cover about 20 kilometres of the southwest margin of the Lennard Shelf in an area where several zinc gossans have been discovered. Several low-grade zinc intersections have been reported from follow-up drilling. Exploratory drilling along strike from the gossan sites have not intersected significant base metal mineralisation but drilling traverses are widely-spaced (500 metres).

Despite the previous exploration focus, Pillara and Fossil Downs zinc-lead deposits occur approximately 10 kilometres behind faults that define the southwest margin of the Lennard Shelf and there is at least one subeconomic lead-zinc occurrence 40 kilometres behind the same faults. All significant mineralisation is located on or close to NE structural elements that cut the Lennard Shelf reef at a high angle. Avalon's exploration model proposes that base metal-rich ore fluids may have permeated the interior portions of the reef complex along these NE structures. The model implies that large areas of Avalon's Oscar Range, Lawford and Barramundi Project areas, most of which have received only reconnaissance exploration, are prospective for zinc and lead.

Avalon plans to use the Niton portable XRF unit to analyse soils for zinc and lead in the field as a rapid first pass geochemical tool over prospective parts of the reef. The company has acquired Aster spectral data over the Lawford and Barramundi Projects and aims to process these data to highlight the distribution of ferroan dolomite, a mineral that occurs in areas of alteration associated with many MVT deposits. Gravity surveys will be employed to search for prospective structures (e.g. horsts) that do not reach the surface, and induced polarization (IP) will be used to detect marcasite that may be associated with "blind" ore bodies. The results of all of these activities will be used to prioritise drill targets. The Paterson region is relatively under-explored due to its remoteness and limited bedrock exposure but contains a number of significant gold, copper and uranium deposits, including the world-class Telfer gold deposit (32 million ounces of gold endowment). Avalon plans to explore for gold, base metals (copper, lead, zinc) and uranium on its Paterson Project areas (Marloo, Christmas Pool, Lamil). The company has identified several targets based on the results of previous explorers and new regional gravity and aeromagnetic data released by DOIR.

Avalon plans to spend \$2.49 million exploring its tenements, \$2.22 million of which will be spent on the Lennard Shelf. Approximately \$1.63 million will be directed at granted tenements in the Oscar Range Project, with the understanding that funds may be directed towards other tenements as they are granted, depending on the results of early exploration on the granted tenements.

All of Avalon's targets areas are early-stage, largely conceptual exploration prospects in regions that are well endowed with mineral deposits. Previous work in most of these target areas has been limited to reconnaissance or early stage exploration. Avalon's planned exploration methods incorporate a mix of well-proven techniques and innovative use of new technological developments. The exploration budget is appropriate for the ground held, providing there is sufficient flexibility to shift funds committed to exploration on granted tenements to other tenements as they become granted, should the exploration results warrant it.



Figure 2. Geology and base metal deposits of the Lennard Shelf, showing location of Avalon's project areas.

### 2. LENNARD SHELF PROJECTS

#### 2.1. Introduction

Avalon holds almost 2,600 square kilometres of tenements in the central to southeastern sector of the Lennard Shelf. There are three granted tenements (486 square kilometres) and eleven tenements (2,109 square kilometres) are held under application.

The Lennard Shelf, in the West Kimberley region of northern Western Australia (Figure 1), is a world-class base metal province and was the State's largest source of zinc and lead production until recently. Zinc and lead were mined from Pillara and Cadjebut, as well as several smaller mines, in the period 1989 to 2002 (Figure 2, Table 1).

The zinc-lead deposits of the Lennard Shelf are generally regarded as falling into the class of Mississippi Valley-Type (MVT) deposits. This type of deposit accounts for a significant proportion of the world zinc supply and the deposits tend to form in clusters of many, generally small deposits.

Mineral resources at 30 June 2003 total 22.18Mt at 6.9% Zn and 2.8% Pb, as reported by Western Metals Ltd in accordance with the Australian Code for Reporting of Mineral Resources and Ore Reserves, September 1999 Edition (JORC Code), which was current at the time of reporting.

Production and resource data in Tables 1 and 2 have been compiled from Annual Reports of Western Metals Ltd, who was operator of the mines from 1994 to mid-2003.

Teck Cominco Ltd (Teck Cominco) acquired the Lennard Shelf assets of Western Metals in 2003, and later sold a 50% interest to Noranda Inc., now Xstrata plc. Teck Cominco is manager of the operating company, Lennard Shelf Pty Ltd. (LSPL), which is currently evaluating further resource potential at Pillara and Cadjebut. In February 2006, Teck Cominco farmed out an outlying portion of their Lennard Shelf ground, which includes an inferred resource at Wagon Pass.

Resource figures published by Teck Cominco for Pillara, are 1.4Mt at 8.8% Zn and 2.2% Pb (Measured), 1.4Mt at 8.1% Zn and 1.8% Pb (Indicated), and 0.3Mt at 8.2% Zn and 1.7% Pb (Inferred).

	Productio	on 1994/95 t	o 2001/02	Total resources at 30 June, 2003			
Deposit	Ore (Mt)	Zn grade	Pb grade	Mt	Zn grade	Pb grade	
Pillara	7.23	7.3%	2.5%	13.98	6.6%	1.8%	
Cadjebut	1.29	9.8%	2.3%				
Cadjebut Splay Fault				0.39	1.4%	14.4%	
Kapok	2.24	7.6%	6.4%	0.89	8.6%	5.6%	
Kapok East				0.62	7.6%	9.3%	
Goongewa	2.51	7.5%	2.4%				
Kutarta				2.34	7.2%	0.5%	
Kapok West				1.22	4.3%	9.0%	
Fossil Downs				2.15	9.5%	2.1%	
Wagon Pass				0.59	8.5%	8.0%	

Table 1. Production and resource figures for the more significant base metal deposits of the Lennard Shelf.

Mt = million tonnes

In addition to the deposits shown in Figure 2, Teck Cominco has identified a number of advanced prospects, including Pillara South, Gravity Ridge and Spring Gossan (near Pillara), Gozon (near Fossil Downs) and Palajippa and Kapok West (near Kapok). LSPL has recently announced their intention to restart mining of zinc and lead from its Lennard Shelf operation with mining scheduled to re-start at Pillara in January 2007.

Cut-off grades for all deposits is 5% zinc equivalent [=  $Zn\% + (Pb\% \div 3) + (Ag g/t \div 120)$ ], except for Pillara and Fossil Downs, which are 3% zinc equivalent.

The largest known Zn-Pb deposits in the region, Cadjebut and Pillara, are located just 3 km and 28 km, respectively, from Avalon's Lawford Project (Figure 2). The eastern end of Avalon's Oscar Range project is located approximately 50km NNW of Pillara.

Access to the tenements is very good, with numerous tracks maintained by pastoral stations. These tracks link with the Great Northern Highway within twenty kilometres of the tenement boundaries of the Oscar Range and Lawford projects. The Barramundi project is linked to the Great Northern Highway by 45 kilometres of well maintained station track.

Table 2. Detailed mineral resource figures for the more significant base metal deposits of the Lennard Shelf, by JORC Code classification.

<i>lt</i> .15	<b>Zn</b> 8.9%	Pb	Mt	Zn			_	
.15	8.9%			<b>Z</b> 11	Pb	Mt	Zn	Pb
	0.070	2.7%	5.03	6.1%	1.6%	4.79	5.2%	1.2%
			0.39			0.39	1.4%	14.4%
.02	7.0%	9.4%	0.87	8.6%	5.5%		8.6%	5.6%
.00*	2.6%	18.2%	0.26	6.9%	5.5%	0.36	8.0%	11.2%
			1.91	7.4%	0.6%	0.43	6.4%	0.2%
						1.22	4.3%	9.0%
						2.15	9.5%	2.1%
						0.59	8.5%	8.0%
	00*	00* 2.6%	00* 2.6% 18.2%	02 7.0% 9.4% 0.87   00* 2.6% 18.2% 0.26   1.91 1.91	02   7.0%   9.4%   0.87   8.6%     00*   2.6%   18.2%   0.26   6.9%     -   -   1.91   7.4%     -   -   -   -     -   -   -   -     -   -   -   -     -   -   -   -     -   -   -   -     -   -   -   -     -   -   -   -     -   -   -   -     -   -   -   -     -   -   -   -	02   7.0%   9.4%   0.87   8.6%   5.5%     00*   2.6%   18.2%   0.26   6.9%   5.5%     1.91   7.4%   0.6%     1   1   1   1     1   1   1   1   1     1   1   1   1   1     1   1   1   1   1	02   7.0%   9.4%   0.87   8.6%   5.5%     00*   2.6%   18.2%   0.26   6.9%   5.5%   0.36	$02$ $7.0\%$ $9.4\%$ $0.87$ $8.6\%$ $5.5\%$ $8.6\%$ $00^*$ $2.6\%$ $18.2\%$ $0.26$ $6.9\%$ $5.5\%$ $0.36$ $8.0\%$ $$

\* 1,000 tonnes

The diamondiferous Ellendale lamproite intrusions are located near the northwest end of Avalon's Oscar Range Project area and there has been some diamond exploration on the Oscar Range tenements. However, there has been no attempt to review or assess the results of exploration for diamonds for the purposes of this report and no comment is made about the potential for diamonds on Avalon's project areas.

#### 2.1.1. Geology of the Lennard Shelf

The Lennard Shelf (Figure 1) is a vast Devonian barrier reef complex that extends for over 500 kilometres along the margin of the Precambrian Kimberley Block. The reef lies on the northern margin of the Canning Basin, a large sedimentary basin covering northwestern and central Australia.

The Devonian reef formed during two successive periods, an earlier Pillara cycle and a later Nullara cycle. The bulk of known zinc-lead mineralisation on the Lennard Shelf is hosted by limestones of the Pillara cycle. Although mostly smaller deposits, 33.5% of known base metal occurrences are found in the Nullara cycle reef.

Each reef cycle can be subdivided into several facies associations that reflect the depositional environment of the limestone and associated clastic sedimentary rocks. The main facies associations are

- the platform facies, including the reef itself and the reef margin, formed predominantly by limestone,
- the marginal slope facies, which accumulated on the ocean side of the reef and comprises debris derived from the reef, and
- the basin facies, which comprises sediments laid down under relatively deep marine conditions distal from the reef.

Most of the known base metal deposits on the Lennard Shelf occur in platform facies limestone, especially the reef margin, and to a lesser extent in the marginal slope facies. Cadjebut occurs in an evaporitic facies sedimentary unit directly beneath the Pillara platform reef.

Basin formation and deposition of sediments on the Lennard Shelf was controlled by northwest structures such as the Oscar Fault and the Pinnacle Fault (Figures 3, 4). NE transfer faults such as the Albatross Fault Zone (Figure 5) that cut the reef complex at a high angle are a complementary control on basin formation and a major control on the distribution of base metal deposits. These transfer structures offset the reef margins and influence the distribution of basement highs, such as the Pillara horst, the Emmanuel horst, the Oscar Range horst (Figure 3) and the Margaret horst (Figures 4, 5).

Conglomerate and sandstone deposits form alluvial and submarine fans around the landward margin (northeast and east) of the reef complex. These deposits represent accumulations of detritus shedding southwards and westwards off the Precambrian continent and locally overlie or inter-finger with the reef complex.

The last stages of Devonian sedimentation comprised siltstone and sandstone of the Fairfield Group, which overlies the reef complex.

After the Devonian, the reef complex and associated clastic sedimentary rocks were overlain by Permian sedimentation in the Canning Basin. On the Lennard Shelf, most of this younger cover has subsequently been removed by erosion.

#### 2.1.2. Base Metals Mineralisation on the Lennard Shelf

MVT deposits are strata-bound, limestone- or dolomite-hosted concentrations of sphalerite and galena. The Lennard Shelf conforms to the classic MVT model in many respects but also demonstrates some atypical features. Prime amongst these is that the base metal deposits formed during deposition of the Canning Basin sedimentary sequence and not during later deformation. The driving force for mineralisation is interpreted to be rapid subsidence and sedimentation in the basinal trough, leading to overpressuring of sediment-trapped water through compaction. Episodic faulting at this time released pulses of brine carrying zinc and lead.

Although grouped together as MVT deposits, known deposits of the Lennard Shelf display a range of mineralisation styles. Based on the main known deposits, these are fault-controlled deposits (e.g. Pillara, Kutarta, Kapok West and Nalarla), cavity in-fill deposits (e.g. Goongewa) and evaporite replacement deposits (e.g. Cadjebut).

The most common host rocks on the Lennard Shelf are clean (pure) limestone or dolostone of the platform facies, particularly the reef margin and marginal slope facies, of the Pillara cycle reef.

A common control on the location of MVT deposits is proximity to basement horsts. On the Lennard Shelf, most of the larger deposits are located near the margins of basement horsts. In addition to the Oscar, Emanuel and Margaret horsts, other horsts may lie unexposed beneath the present erosion surface and these may be detected using gravity or seismic surveys.

Faults are a major control on the distribution of base metal deposits on the Lennard Shelf. It is generally believed that the faults influenced reef carbonate deposition and acted as conduits for the ore fluids. The Pinnacle, Virgin Hills and Oscar Faults, which lie along the southwestern margin of the reef complex, have traditionally been a focus for exploration with most of the larger known deposits located on or near these structures. Of equal importance are the NE to ENE transfer faults and fault zones such as the Albatross Fault Zone (Figure 5), which hosts Pillara. These structures offset the reef and basement horsts and are also interpreted as important conduits for base metal brines derived from deeper parts of the Canning Basin, southwest of the reef. Several transfer structures, the approximate locations of which have been interpreted from regional gravity data, strike across Avalon's tenements (Figures 3, 4 and 5).

The Pierre Fault (Figure 4) is a prominent east-west structure that links with the Virgin Hills Fault in the west and penetrates the Precambrian basement to the east where it forms a major regional lineament (the Glidden Fault). Avalon views the Pierre Fault Zone as another potential fluid conduit during the MVT deposit-forming events.

MVT deposits are commonly surrounded by a halo of dolomite alteration or, less commonly, disseminated marcasite. Most MVT deposits on the Lennard Shelf are associated with dolomitisation of the host limestone. The Pillara orebody, where no dolomitisation has been documented, is an important exception. At Pillara, however, there is an association with an extensive zone of marcasite.

#### 2.1.3. Avalon's Exploration Strategy

Avalon believes that its project areas have been under-explored and has used published data and Geological Survey of Western Australia maps to identify a number of priority target areas. Target selection has been based on application of current conceptual models and established controls for this style of mineralisation. However, the concepts have been applied beyond the rather confined areas previously considered prospective for base metal mineralisation.

Previous exploration on the Lennard Shelf has focused on NW-trending faults (e.g. Pinnacles, Virgin Hills, Oscar Faults) at the front (on the southwest margin, facing the paleao-ocean) of the reef complex. Large areas of the Oscar Range, Lawford and Barramundi project areas are located behind the reef front and are therefore under-explored. Avalon believes there is a possibility that ore fluids derived from the interior of the Canning Basin could have accessed favourable host rocks behind the front of the reef via major transfer (ENE to NE) structures. This is supported by the location of significant base metal sulphide deposits at Pillara and Fossil Downs, approximately 10 km behind the frontal fault systems. Base metal sulphide occurrences occur almost 40 km behind the Virgin Hills Fault, at Horse Spring Range, although these are currently subeconomic.

Avalon's exploration strategy has been to use the following criteria to develop target areas for MVT base metal exploration.

- Pillara cycle and Nullara cycle platform and marginal-slope facies limestones but giving preference to the Pillara cycle reef.
- NE (and other) transfer faults such as the Albatross Fault Zone and the Pierrre Fault Zone.
- Proximity to basement horsts.
- Proximity to reef front faults (e.g. Pinnacles Fault). Although proximity to these faults is preferred, it is not an essential criterion.
- Pinchouts of limestone against basement highs.

Exploration for MVT base metal sulphide mineralisation will be aided by the ferroan dolomite alteration that commonly accompanies and extends beyond the sulphide mineralisation. Under normal conditions, the limestone reefs are dominated by calcite or iron-poor dolomite. Some forms of airborne spectral data can distinguish ferroan dolomite from calcite and iron-poor dolomite. Avalon has acquired Aster satellite imagery of the Lawson and Barramundi Project areas. Mapping of ferroan dolomite using Aster data is not a proven technique but is theoretically possible, providing the areas of ferroan dolomite are sufficiently large. Avalon plans to collaborate with CSIRO to develop this technique using its Lennard Shelf data. If the procedure successfully identifies areas of ferroan dolomite alteration on Lawson and Barramundi, Aster data will be acquired over the Oscar Range project area and the technique will also be applied here.

Marcasite, commonly in a distal position with respect to MVT deposits, can also be used as a factor in exploration targeting. Where exposed at the surface,

marcasite will form gossanous (limonitic) outcrops. Gradient IP can be used in areas of limestone reef to detect marcasite below the present day land surface.

Avalon plans to use a Niton portable XRF unit to analyse soils on the Lennard Shelf project areas. This instrument allows rapid in situ measurement of zinc and lead in soils and rock material in the field. It is anticipated that up to 200 readings can be taken per day, based on successful use in the region by other companies. This instrument is a recent technological breakthrough, which was not available to previous explorers and should prove a valuable tool for the rapid appraisal of large areas of outcrop and shallow cover.

Stream sediment sampling may have been ineffective in areas of Avalon's tenements where streams are widely spaced and immature. Stream sediment samples collected by previous explorers tend to have been concentrated around the margins of the platform facies reefs, where the streams cut the prospective reef margin and marginal slope limestones. Even in the most densely sampled areas, samples were collected between 200 and 800 metres apart, with some even larger gaps of several kilometres. The Niton portable XRF unit provides the potential to rapidly sample a continuous soil survey around the margins of the prospective reefs.

### 2.2. Oscar Range Project

#### 2.2.1. Location and Tenure

The Oscar Range Project incorporates E04/1421, E04/1422, E04/1423, E04/1506 and E04/1508, covering approximately 940 square kilometres. Of these, the last three exploration licenses have been granted. The tenements extend for almost 90 kilometres, north and northwest of Fitzroy Crossing (Figure 2).

There are four small excisions (two mining leases and two general purpose leases) from E04/1422 and E04/1423, totaling 22.5 hectares (0.225 square kilometres). These have not been shown in Figure 3, for reasons of scale.

The Great Northern Highway runs within a few kilometres to the south of the Oscar Range tenements and the tenements can be accessed via pastoral tracks on Leopold Downs and Fairfield stations.

#### 2.2.2. Geology and Mineralisation

The Oscar Range project encompasses approximately 60 kilometres strike length of the Lennard Shelf reef complex, including 20 kilometres of the reef front and the Oscar Fault (Figure 3). The project area includes large parts of the Oscar

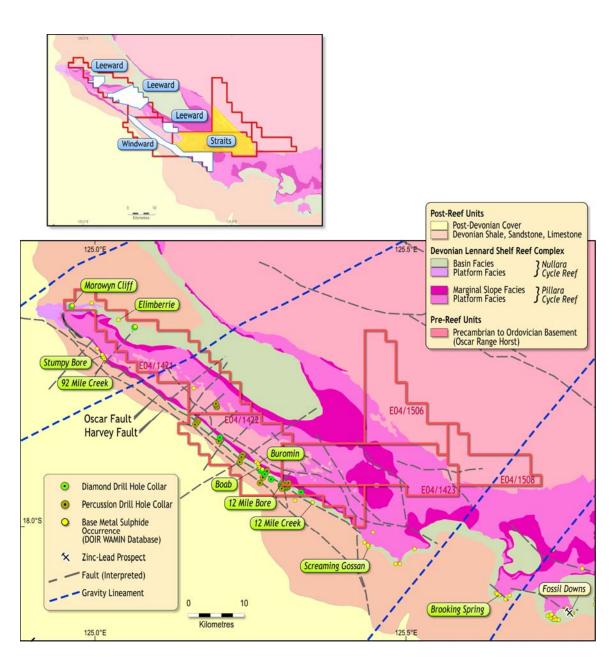


Figure 3. Geology, base metal deposits and occurrences, and drill hole locations, Oscar Range Project, showing Avalon's target areas (geology and data derived from GSWA Bulletin 145, GSWA West Kimberley MOEP and reports in DOIR WAMEX database).

Range horst, which strikes NW for approximately 40 kilometres on E04/1421, E04/1422 and E04/1423.

The reef complex on Oscar Range is dominated by favourable limestone units comprising platform facies and marginal slope facies of the Pillara cycle, and basin facies of the Pillara and Nullara cycles (Figure 3).

Name	Location	Surface expression	Drill results*
92 Mile Creek	Southwest side of Oscar Range horst, close to Oscar Fault	Limonite in net vein fractures and veins; Up to 1.20% Zn, 0.54% Pb.	3 diamond drill holes; NTD1 intersected pyrite and marcasite from 24.2 – 138.7 metres
Stumpy Bore	Southwest side of Oscar Range horst, close to Oscar Fault	Limonitic veins, pods, disseminations with up to 0.92% Zn, 0.08% Pb	7 percussion and diamond drill holes largely unsuccessful due to drilling problems in overlying Permian Grant Formation
Buromin	Southwest side of Oscar Range horst, close to Oscar Fault	Gossan samples with up to 1.7% Zn and 1.6% Pb	Not yet drilled
Boab	Southwest side of Oscar Range horst, close to Oscar Fault	Rock chip samples with up to 0.59% Zn and 0.35% Pb	Diamond drill hole intersected 6 metres @ 0.1% Zn and thin intervals with 1-3% marcasite throughout the hole (336.8m)
12 Mile Bore	Southwest side of Oscar Range horst, close to Oscar Fault		Best intersection 7 metres at 0.40% Zn, including 0.5 metres at 2.02% Zn; low-grade Zn mineralisation in all 5 holes.
12 Mile Creek	Southwest side of Oscar Range horst, close to Oscar Fault		13 percussion holes; most with low-grade Zn intersections; best intersection is 5 feet at 0.82% Zn and 410 ppm Pb within 125 feet of anomalous Zn and Pb, defining an upward trend at end of hole
Screaming Gossan	Southwest side of Oscar Range horst, close to Oscar Fault, and close to NE gravity lineament	Gossan samples with up to 39.4% Zn	7 diamond drill holes; best intersection 19 metres at 2.6% Zn, 0.18% Pb, and 2 metres at 7.2% Zn and 0.63% Pb
Morowyn Cliff	NW end of Oscar Range inlier; near Nullara cycle reef/Fairfield Group contact	Net-vein limonite samples with up to 0.6% Zn and 0.24% Pb	Diamond drill hole intersected pyrite and trace sphalerite; best intersection 2 metres at 0.36% Zn+Pb
Elimberrie	NW end of Oscar Range inlier	Limonite veining in limestone; gossan samples with up to 1.07% Zn and 0.05% Pb	Diamond drill hole ED1; no economically significant results

Table 3. Base metal occurrences on and adjacent to Avalon's Oscar Range Project

Note: All drill intercepts quoted in this report are down-hole intercepts, not true widths. There is insufficient information in the source reports to estimate true widths.

The Oscar Fault strikes NW parallel to the Oscar Range horst and is interpreted as the bounding fault on the southwest side of the Lennard Shelf reef complex. A parallel structure to the southwest, the Harvey Fault is correlated with the Pinnacles Fault in the Lawford project area.

Seismic surveys, gravity modeling and some drilling indicate that limestones of the Pillara reef dip gently (20-30°) away from the Oscar Range horst and that the basement lies at depths ranging from approximately 100 metres to 500 metres in Avalon's tenements to the northeast of the horst. The Oscar Fault has been interpreted to dip about 35° SW but locally dips NE at the southeast end of the horst, in the vicinity of the NE gravity lineament between Screaming Gossan and Brooking Spring.

A number NE faults that cut the Lennard Shelf reef complex have been interpreted from regional gravity and aeromagnetic data and LANDSAT imagery (Figure 3).

Numerous occurrences of base metal sulphides and limonitic rock with anomalous base metal contents have been identified within the Oscar Range project area by previous exploration (Figure 3, Table 3). Table 3 includes base metal occurrences that lie outside the project area but are nearby and lie along strike from geological units that underlie Avalon's tenements. These are included to highlight the prospectivity of the units within the company's tenements.

It is notable that most of the occurrences lie along the southwest margin of the Oscar Range horst, which has been the focus of previous exploration, and that many of these are located close to NE gravity lineaments or major NE faults. To date, the results appear to improve with proximity to the gravity lineaments located close to the southeast edge of the Oscar Range project (Figure 3).

Most of the occurrences are exposed as limonite zones and limonitic net-veins in the reef margin facies limestone. Follow-up drilling has, in most cases, intersected pyrite, marcasite and low-grade zinc-lead mineralisation.

At the northwestern end of the Oscar Range inlier (Morowyn Cliff and near 92 Mile Creek), the contact between Nullara cycle limestone and the overlying Fairfield Group (shales) is associated with zinc enrichment. Reconnaissance drilling at these locations has intersected pyritic rocks with low-grade zinc mineralisation.

### 2.2.3. Previous Exploration

Previous exploration, mostly during the 1970s and 1980s, was focused on the southwest margin of the Oscar Range inlier where limonitic veins and gossans identified at surface were followed up with limited percussion and diamond

drilling. This has resulted in numerous intersections of low-grade zinc and lead (Table 3).

Another approach has been to drill reconnaissance traverses across the limestone reef on the southwest side of the inlier with percussion and diamond holes. These holes were located on a nominal grid of 4.8 kilometre by 800 metres, and drilled to a nominal target depth of 200 metres. In fact, the line spacing varies from approximately 1.5 to 5 kilometres. A total of 32 holes were completed without intersecting high-grade zinc or lead mineralisation, although pyrite was widespread. The best intersection was 2 metres at 0.66% Zn and 0.27% Pb in OP9, located near Screaming Gossan (Figure 3).

Stream sediment and rock chip sampling at the northwest end of the Oscar Range horst led to the identification of several prospects, including Morowyn Cliff and Elimberrie, which have been followed up with only two diamond drill holes. One of these (at Morowyn Cliff) interescted low-grade zinc mineralisation (Table 3).

Four percussion holes drilled into limonitic hematite-chert breccias in the Precambrian Oscar Range inlier failed to intersect significant mineralisation.

There has been relatively little exploration elsewhere on the project area. Most of this has taken the form of stream sediment and rock chip sampling. No significant base metal anomalies arose from this work.

### 2.2.4. Targets and Prospects

Avalon has identified three large target areas on Oscar Range from evaluation of favourable host rocks, structural elements that may have acted as conduits for migrating ore fluids, and past exploration results (Figure 3).

### Straits

The area of platform reef around the southeast end of the Oscar Range horst is seen as a potential site of base metal mineralisation, particularly as it is traversed by several large faults, and known base metal mineralisation occurs at Twelve Mile Bore and Twelve Mile Creek. The NW faults and the reef margin facies limestone in central E04/1423 also represent possible target sites for MVT base metal mineralisation. The basement unconformity, exposed on E04/1506 and east E04/1423 is another possible site of mineralisation if unexposed "pinch-outs" of favourable reef facies limestone lie beneath the present erosion surface.

#### Windward

Marginal reef facies limestone exposed along the southwest side of the Oscar Range horst represents a very attractive target for base metal mineralisation. Approximately 20 kilometres strike length of reef facies limestone has been captured by E04/1422 and E04/1423 (the Windward prospect). Past exploration has focused on this target with some success. Despite the previous interest in this target, drilling outside of the Twelve Mile Bore – Boab area is widely spaced.

Avalon has commenced a review of results from Twelve Mile Bore, Boab and Buromin with a view to developing new drill targets in the vicinity of reported lowgrade base metal intersections and soil and rock chip anomalies.

#### Leeward

Although not the traditional focus of base metals exploration, the northeast side of the Oscar Range horst may have potential for mineralisation, if the NE transverse structures were able to transport the ore fluid from its deep basinal source (to the southwest of the reef) into the interior of the reef. The presence of base metal mineralisation at several localities on the leeward side of the reef (e.g. Elimberrie) supports the hypothesis that the ore fluid was able to gain access to the interior of the reef, at least locally. Although previous stream sediment sampling behind the horst did not detect anomalous geochemistry, the sampling was widely spaced, irregularly distributed and may have been ineffective at some localities. The parts of this prospect with the greatest potential are where the reef is cut by major faults and gravity lineaments.

### 2.2.5. Proposed Exploration Programme and Budget

The total exploration budget for Oscar Range is approximately \$1.9 million, of which \$1.63 million is attributed to granted tenements.

Avalon plans to focus initial exploration on the three granted ELs of the Straits prospect. The exploration programme will commence with surface (rock chip) prospecting, where appropriate, and Niton soil surveys over major faults, the reef margin facies limestone units and close to the basement unconformity, including the margins of the Oscar Range horst. The Niton soil sampling is designed to directly detect near-surface mineralisation and may also detect subsurface mineralisation via "leakage" along structures such as faults and the unconformities.

Avalon will also purchase and process Aster satellite data to highlight areas of ferroan dolomite alteration that may be associated with base metal mineralisation, depending on results of orientation work at Lawford.

A series of gravity traverses over the most prospective parts of E04/1423 and E04/1506 will be conducted to delineate important structures and the subsurface form of the basement. Unexposed horsts, the margins of which would provide a target for further exploration, could be revealed by the gravity survey.

Marcasite or pyrite halos that form around many MVT deposits can be used to detect base metal mineralisation that does not intersect the present erosion surface ("blind" mineralisation). These minerals can be detected using IP and several traverses across selected faults and gravity lineaments (including any revealed by gravity data) are planned.

Prospective drill targets identified by Avalon's exploration will be followed up with more detailed soil sampling, geological mapping and rock chip sampling to rank anomalies and develop drill targets.

Four thousand five hundred metres of percussion and diamond drilling have been budgeted to follow up targets generated by the work programme. Down-hole geophysical surveys have been planned on up to two of these holes to detect offhole conductors, such as disseminated sulphide bodies.

Exploration programmes planned for the Windward and Leeward prospects are similar to that proposed for Straits, although they are deferred until the ground is granted. Emphasis is placed on identification of drilling targets using soil and IP surveys. As pending tenements become granted, exploration funds may be transferred to them, depending on results of early phase exploration on Straits.

A sum of \$60,000 has been allocated to cover tenement costs, reporting and administration.

# Budget: Oscar Range Project

STRAITS PROSPECT				
Activity	Phase	Year	Total Cost	
Purchase, processing, interpretation of	1	1	\$9,000	
Aster data				
Niton soil sampling (5,000 samples and	1	1	\$127,450	
purchase of equipment)				
Follow-up (conventional) soil sampling	2	1	\$86,000	
Geological mapping and sampling	2	1	\$61,800	
Gravity survey (150sq. km.)	2	2	\$400,000	
IP surveys (40km.)	3	2	\$144,000	
Percussion/diamond drilling (4,500m)	4	2	\$660,450	
Down-hole geophysics	5	2	\$80,000	
Total			\$1,568,700	
WINDWARD F				
Activity	Phase	Year	Total Cost	
Niton soil sampling (1,000 samples)	1	2	\$12,350	
Follow-up (conventional) soil sampling	2	2	\$18,350	
Geological mapping and sampling	2	2	\$25,400	
IP surveys (15km.)	3	2	\$54,000	
Percussion drilling (300 metres)	4	2	\$44,600	
Total			\$154,700	
LEEWARD P				
Activity	Phase	Year	Total Cost	
Niton soil sampling (1,000 samples)	1	2	\$6,750 <sup>*</sup>	
Follow-up (conventional) soil sampling	2	2	\$12,750 <sup>*</sup>	
Geological mapping and sampling	2	2	\$14,400	
IP surveys (10km.)	3	2	\$36,000	
	4	2	\$44,800	
Percussion drilling (300 metres)	т	-	ψ,000	
Percussion drilling (300 metres)				
Subtotal			\$114.700	
Subtotal			<b>\$114,700</b> \$60.000	
			<b>\$114,700</b> \$60,000	

\* Travel component covered by Windward Prospect budget.

# 2.3. Lawford Project

### 2.3.1. Location and Tenure

The Lawford Project incorporates E80/3631 to E80/3635 covering approximately 940 square kilometres. The tenements, which are under application, are located 40 kilometres southeast of Fitzroy Crossing and 60 kilometres southeast of the Oscar Range project (Figure 2). Note that a small mining lease over Ross Hill (approximately 2.3 square kilometres) is excised from E80/3634.

The Cadjebut, Kutarta, Goongewa and Kapok base metal deposits are located within a few kilometres of the southwest corner of Lawford.

The sealed Great Northern Highway passes within 20 kilometres of the southern boundary of Lawford. Four wheel drive pastoral tracks provide access to other parts of the tenement group.

### 2.3.2. Geology and Mineralisation

The Lawford Project incorporates large areas of the Lennard Shelf reef complex, from the Palaeoproterozoic basement in the northeast to the reef front environment in the southwest. The economically important Pinnacle and Cadjebut Faults lie within a few kilometres of the southwest boundary of Lawford (Figure 4).

Approximately 20% of Lawford covers Pillara-cycle platform and marginal slope facies reef prospective for MVT mineralisation, especially in the Emmanuel, Laidlaw and Lawford Ranges, in southwest Lawford. These exposures are on the northeast flank of the Emanuel horst and correlate with the host rocks to base metal mineralisation at Goongewa, Kutarta, Kapok and Kapok West.

Lenses and strata of Pillara cycle platform facies limestone are present within the Devonian conglomerates on the basin margin, and some of these are exposed at the surface on northern Lawford.

Exploration drilling west of Lawford indicates that the Pillara reef underlies basin facies sedimentary rocks north of the Pierre Fault Zone, at depths ranging from 36 metres up to 300 metres. The inferred presence of Pillara cycle platform facies reef, and the underlying Cadjebut Formation, beneath clastic (basin facies) sedimentary sequences on northern Lawford, increases the potential target area for exploration well beyond the areas of outcrop shown in Figure 4 but the depth to these units is unknown on Lawford.

Also shown in Figure 4 are faults and gravity lineaments, which have been interpreted from regional gravity data, LANDSAT imagery and drainage patterns and from published maps.

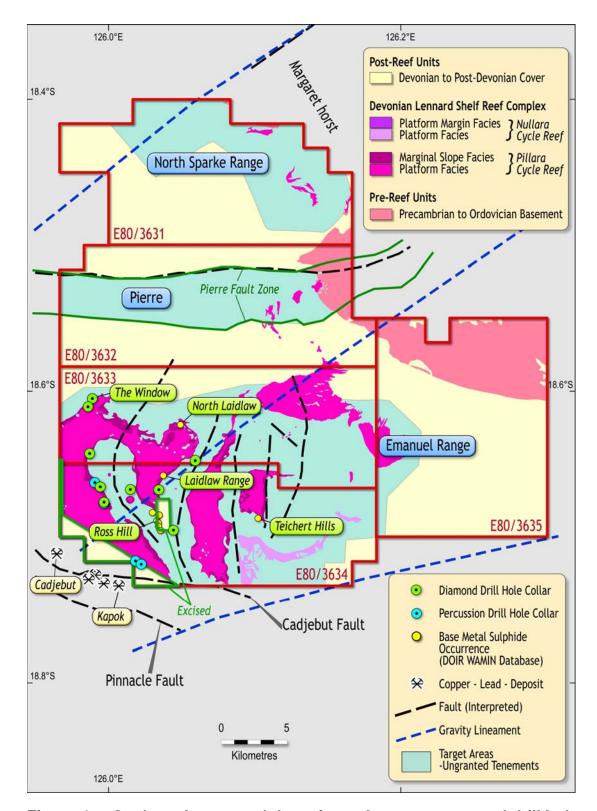


Figure 4. Geology, base metal deposits and occurrences, and drill hole locations, Lawford Project, showing Avalon's target areas (geology and data derived from GSWA Bulletin 145, GSWA East Kimberley MOEP and reports in DOIR WAMEX database).

A number of base metal occurrences are known in the platform and marginal-slope facies limestones on Lawford.

Ross Hill, on the eastern side of the Laidlaw Range, was discovered as a stream sediment anomaly. Gossan sampling produced results up to 27% Zn and 10% Pb. Mineralisation occurs as small, discontinuous pods and veins of calcite and sulphide minerals in marginal-slope facies limestone of the Pillara cycle. At Ross Hill, the marginal-slope facies limestone is an iron-rich dolomite, a common alteration product in some MVT deposits. Ross Hill is located within an excision from Avalon's tenement holdings.

At Laidlaw Range, 3 kilometres north of Ross Hill, gossan samples in the marginalslope facies limestone assayed 0.2% Zn and 0.18% Pb.

The marginal-slope facies limestone is also mineralised on the northern margin of the Laidlaw Range, where the North Laidlaw and The Window base metal occurrences are located (Figure 4). At North Laidlaw, surface exposures of malachite and cuprite (secondary copper minerals) occur over a strike length of 800 metres. Samples of black recrystallised calcite from the same area contain up to 0.7% Zn and 0.59% Pb.

Gossan packs and veins with up to 575ppm Zn and 1,000ppm Pb are present in marginal-slope facies limestone on the southern side of the Teichert Hills.

### 2.3.3. Previous Exploration

There has been considerable early stage exploration for base metal MVT deposits in southern Lawford because of its close proximity to the Cadjebut and Kapok mines. This has mostly involved stream sediment sampling and some rock chip sampling but only minor drilling (Figure 4). Anomalous stream sediment samples were reported from several localities, mostly coincident with anomalous rock chip localities (e.g. The Window, Ross Hill).

Despite quite extensive stream sediment sampling carried out on southern Lawford, the area still has exploration potential. Apart from the possibility of subsurface mineralisation, some strike sections (up to several kilometres) of favourable units have not been sampled. Stream sediment sampling was probably ineffective in some areas where streams are widely spaced and immature. These streams would provide an effective sample of the platform facies reef in the headwaters of the stream but not of the marginal reef facies.

Gossan samples from The Window returned up to 4.38% Zn and 0.72% Pb. Nonanomalous stream sediment results from the same location have been interpreted to suggest limited extent of the gossan, so detailed follow-up of this mineralised gossan has not been carried out. Six anomalous stream sediment samples (>200ppm Zn, >100ppm Pb) located a few hundred metres west of the gossan have not been followed up in detail either.

Two diamond drill holes in The Window area were completed for stratigraphic purposes. Diamond hole XD1 intersected 4 metres @ 0.3% Zn (477-481m) and 2 metres @ 0.5% Zn (537-539m), and XD2 intersected 14 metres @ 0.24% Zn (508-522 metres), 4 metres @ 0.5% Zn (508-512 metres).

Seven other reconnaissance diamond drill holes and several water bores have been completed on southwest Lawford. Most diamond holes were collared in basin facies sedimentary rocks with the apparent intention of establishing the depth to the Pillara reef (100 to 250 metres) and to the Cadjebut Formation (400 to 600 metres). Most holes intersected trace sulphides and some intersected short intervals of anomalous zinc (e.g. 3 metres at 1,410ppm Zn) but no economic mineralisation was reported.

### 2.3.4. Targets and Prospects

Three target areas on Lawford have been identified from an evaluation of favourable host rocks, structural elements that may have acted as conduits for the migrating ore fluid, and past exploration results.

#### Emanuel

There is a clear association of anomalous geochemistry with the marginal-slope facies of the Pillara cycle reef. The prospectivity of the Emanuel prospect is enhanced by a NE gravity gradient, which runs through the centre of this area and passes close to Cadjebut and other MVT deposits to the southwest of Lawford.

#### Pierre

The Pierre Fault Zone is viewed as a potentially important conduit along which the MVT ore fluid probably migrated. Platform facies limestones of the Pillara reef cycle are exposed within the Devonian conglomerates at the eastern end of the Pierre Fault Zone and it is likely that other lenses of reef are present beneath the present erosion surface. These will be targeted by Avalon's exploration programe.

#### North Sparke Range

The northern Sparke Range, in the NE part of Lawford, lies along the southwest margin of the Margaret horst. Base metal sulphide mineralisation is known at Horse Spring Range, at the northern end of the horst (outside the boundaries of Lawford). The area is dominated by basin margin fanglomerate deposits but there are a number of exposures of platform facies Pillara cycle limestones within the fanglomerate deposits. There may be other platform reef units within the fanglomerate deposits and beneath the present erosion surface. Avalon regards the platform facies reef deposits on the flank of the Margaret horst as prospective

for base metal mineralisation by comparison with models for MVT mineralisation and because of the indications of mineralisation at Horse Spring Range.

A NE gravity lineament that cuts the deposits at the northwest end of Sparke Range will be a focus of Avalon's first pass exploration of the North Sparke Range prospect.

### 2.3.5. Proposed Exploration Programme and Budget

The exploration budget for Lawford is \$191,100 planned to commence in Year 2 once the tenements have been granted. Additional funds may be reallocated from other projects, if tenure is granted and exploration is commenced sooner than anticipated.

In view of the questionable effectiveness of previous stream sediment sampling in the Emanuel prospect area, Avalon proposes to use soil sampling as the major first pass geochemical tool. The reef margins will be assessed using a Niton portable XRF unit to analyse soils in the field for zinc and other metals. It is proposed to carry out a survey along the reef margins at a spacing of 100 metres, in the Emanuel Range, the Laidlaw Range, the north and south Lawford Ranges and the Teichert Hills. More detailed readings will be taken where anomalous base metal values are detected.

Avalon will work with CSIRO or a commercial group to process Aster satellite data in an attempt to identify areas of ferroan dolomite alteration that may indicate the presence of buried MVT mineralisation.

Avalon will also re-assess the known areas of anomalous rock chip and stream sediment geochemistry at North Laidlaw, The Window, Laidlaw Range and Teichert Hills as part of a wider geological mapping programme.

Gradient IP traverses over reef facies limestone outcrops and significant faults, including the Cadjebut Fault, and the NE gravity lineament (Figure 4) may be considered to detect unexposed distal pyrite or marcasite, depending on results from Oscar Range.

Geochemical (Niton), geophysical (IP) and geological (structure, host rock, dolomitic alteration) data will be evaluated to formulate potential drill targets.

The Pierre Fault Zone will be targeted for rock chip sampling and Niton soil geochemical surveys.

A ground-based gravity orientation survey over the Pierre Fault Zone is planned to detect unexposed basement horsts which may control the location of fringing reefs. Depending on results, Avalon may drill a diamond hole to 200 metres to test for the presence of these rocks at depth.

A ground-based gravity survey over the Northern Sparke Range prospect will be used to determine the possible presence and depth to the Pillara cycle reef and highlight the location of major faults within the zone.

A sum of \$20,000 has been allocated to cover tenement costs, reporting and administration.

EMANUEL PROSPECT				
Activity	Phase	Year	Total Cost	
Processing/interpretation of Aster data	1	2	\$3,000	
Niton soil sampling (2,000 samples)	1	2	\$16,400	
Follow-up (conventional) soil sampling	2	2	\$56,600	
Geological mapping and sampling	2	2	\$61,800	
Total			\$137,800	
PIERRE PROS	SPECT			
Activity	Phase	Year	Total Cost	
Niton soil sampling (200 samples)	1	2	\$1,350 <sup>*</sup>	
Gravity survey (20 line km.)	2	2	\$13,000	
Geological mapping and sampling	2	2	\$6,400	
Total			\$20,750	
NORTH SPARKE RAN				
Activity	Phase	Year	Total Cost	
Niton soil sampling (200 samples)	1	2	\$1,350*	
Gravity survey (20 line km.)	2	2	\$9,000**	
Geological mapping and sampling	2	2	\$2,200**	
Total			\$12,550	
Administration, reporting, tenement			\$20,000	
costs				
TOTAL			\$191,100	

# **Budget: Lawford Project**

\* Travel covered by Emanuel Prospect budget.

Travel covered by Pierre Prospect budget

# 2.4. Barramundi Project

# 2.4.1. Location and Tenure

The Barramundi tenements (E80/3627 to E80/3630) are held under application and encompass approximately 710 square kilometres, 60 kilometres east of Fitzroy Crossing. There is a small area (approximately 2.9 square kilometres) of overlap by later application E80/3809 (pending) east of Horse Spring Range.

Access to Barramundi is from Fitzroy Crossing, by pastoral tracks.

### 2.4.2. Geology and Mineralisation

The Barramundi Project is located north of Lawford, on the northeast side of the Margaret horst. The project incorporates parts of the reef complex, from the Palaeoproterozoic basement in the northeast to the Margaret horst in the southwest.

Platform facies and marginal-slope facies limestone of the Pillara cycle are exposed in the Hull Range, along the northeast flank of the Margaret horst, on southwest Barramundi (Figure 5).

In eastern and northern Barramundi, platform and reef margin facies of the Nullara cycle reef are exposed. These units may also be present beneath basin facies sedimentary sequences to the west.

The economically important Albatross Fault Zone, which hosts the Pillara deposit to the southwest, strikes northeast across the northwest corner of Barramundi. In addition to the Albatross Fault Zone, Barramundi contains or is traversed by numerous N-S faults and two major NE gravity lineaments.

Previous exploration for base metals on Barramundi has been very limited compared to many other areas of the Lennard Shelf and no occurrences are known on Avalon's tenement group. However, gossans (up to 34% Zn and 8.7% Pb) and drilling at Horse Spring Range and Findlay Hill indicate the presence of base metal sulphides at the northwestern end of the Margaret horst, just outside Avalon's tenements (Figure 5). Percussion holes established a fault-controlled zone of low-grade Zn-Pb mineralisation (best intersection 2 metres at 9.96% Zn and 0.49% Pb).

Significantly from an exploration perspective, the mineralisation at Horse Spring Range is hosted by Nullara cycle reef, not the Pillara cycle reef. The mineralised fault separates Nullara platform facies from basin facies rocks.

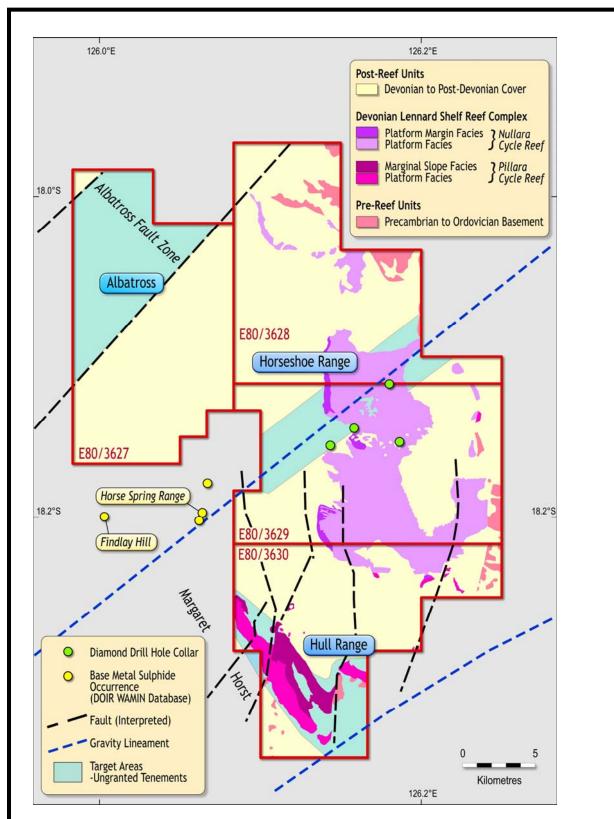


Figure 5. Geology, base metal deposits and occurrences, and drill hole locations, Barramundi Project, showing Avalon's target areas (geology and data derived from GSWA Bulletin 145, GSWA East Kimberley MOEP and reports in DOIR WAMEX database).

### 2.4.3. **Previous Exploration**

There has been limited exploration on Barramundi because of its distance from the main mining areas and lack of immediate encouragement from limited stream sediment sampling.

Reconnaissance stream sediment sampling over the central third of Barramundi returned no encouraging results but four stratigraphic diamond holes drilled into Nullara platform facies limestone, to a maximum depth of 703 metres, returned maximum assays of 506ppm Zn and 870ppm Pb from a 81.3 metre hole close to a NE gravity lineament.

### 2.4.4. Targets and Prospects

Avalon has identified three target areas on Barramundi from an evaluation of favourable host rocks, structural elements that may have acted as conduits for migrating ore fluids, and past exploration results.

#### Hull Range

The premier target on Barramundi is the Hull Range prospect. This prospect lies on the northeast flank of the Margaret horst, where the reef comprises the highly prospective platform and marginal-slope facies limestones of the Pillara cycle. Base metal sulphide mineralisation on the margins of the Margaret horst is already known, at Horse Spring Range and Findlay Hill. There has been no previous exploration reported from the Hull Range.

The best potential prospect is where the limestone reef is cut by N-S transfer faults. Carbonate rocks are generally well exposed in the Hull Range but exposure is poor where the reef is cut by these structures and therefore amenable to soil sampling. A NE gravity lineament passes by the SE end of the Hull Range, further contributing to the prospectivity of this area.

Gossanous limestone and widespread calcite veining were observed at the western end of Guppy Hills, broadly coincident with a prominent N-S fault. Although the gossanonous material contained low zinc concentrations, the presence of sulphides (probably after marcasite or pyrite) is encouraging because these minerals form a distal envelope around some MVT deposits.

#### Horseshoe Range

The occurrence of significant base metal mineralisation in Nullara cycle limestone at Horse Spring Range has important implications for the prospectivity of Barramundi, which contains extensive outcrops of Nullara cycle reef. The platform and reef margin facies of the Nullara cycle reef are extensively exposed in the Horseshoe Range. The most prospective location, the Horseshoe Range prospect, lies where the reef is cut by the same NE gravity lineament that passes close to Horse Spring Range. The gravity lineament itself is intersected by several N-S faults, and these intersections are seen as possible sites of base metal mineralisation.

Intense calcite veining and gossanous outcrops occur within platform facies outcrop of the Nullara reef. These observations indicate that, at least locally, the Nullara reef has the physical and chemical properties required to focus ore fluids and precipitate base metal sulphides.

### Albatross

The Albatross prospect is located where the Albatross Fault Zone traverses the northwest corner of the project area. The Albatross Fault Zone hosts MVT base metal sulphide mineralisation at Pillara and has clearly acted as a conduit for an MVT ore fluid. There has been no previous exploration for base metals in this part of Barramundi. The prospect is an area of poor exposure but outcrops to the west of Avalon's tenements suggest it is probably underlain by basin facies sedimentary rocks of the Nullara cycle reef and that platform and reef margin facies limestones of the Nullara and Pillara cycle reefs may be present below the surface on Albatross (depth unknown).

# 2.4.5. Proposed Exploration Programme and Budget

The exploration budget for Barramundi is \$133,900, planned to commence in Year 2 once the tenements have been granted. Additional funds may be reallocated from other projects, if tenure is granted and exploration is commenced sooner than anticipated.

Avalon plans to carry out stream sediment and Niton soil sampling along the Hull Range, and to process Aster satellite data in an effort to highlight ferroan dolomite alteration associated with MVT deposits.

Three initial IP traverses, totalling 9 kilometres will test the prospective reef facies along N-S faults. These are planned to detect evidence for subsurface sulphides such as marcasite, which may represent a distal expression of base metal mineralisation.

At Horseshoe Range, Avalon plans to carry out reconnaissance Niton soil sampling over the NE gravity lineament to detect near surface mineralisation or "leakage" from subsurface mineralisation. Aster satellite data will be processed to detect ferroan dolomite. A 10 kilometre orientation line of IP will be carried out to detect subsurface marcasite or pyrite along the gravity lineament. A ground-based gravity survey has been planned over the Albatross Fault Zone on Barramundi to detect basement horsts which may control the location of fringing reefs. Depending on results, Avalon may commission IP surveys or drill to determine whether these rocks are present at depth (in year 3).

A sum of \$15,000 has been allocated to cover tenement costs, reporting and administration.

HULL RANGE PROSPECT				
Activity	Phase	Year	Total Cost	
Processing/interpretation of Aster data	1	2	\$3,000	
Niton soil sampling (600 samples)	1	2	\$9,500	
Stream sediment sampling	1	2	\$3,300	
Geological mapping and sampling	2	2	\$8,900	
IP surveys (9 line km.)	2	2	\$32,400	
Total			\$57,100	
HORSESHOE RANGE PROSPECT				
Activity	Phase	Year	Total Cost	
			<u>.</u>	
Niton soil sampling (600 samples)	1	2	\$4,050	
Geological mapping and sampling	2	2	\$3,300 <sup>*</sup>	
IP surveys (10 km.)	2	2	\$36,000	
Total			\$43,350	
ALBATROSS PROSPECT				
Activity	Phase	Year	Total Cost	
Niton soil sampling (1,400 samples)	1	2	\$9,450*	
Gravity (20 line km.)	2	2	\$9,000	
Total			\$18,450	
Administration, reporting, tenement costs			\$15,000	
TOTAL			\$133,900	

# Budget: Barramundi Project

\* Travel costs covered by Hull Range Prospect budget

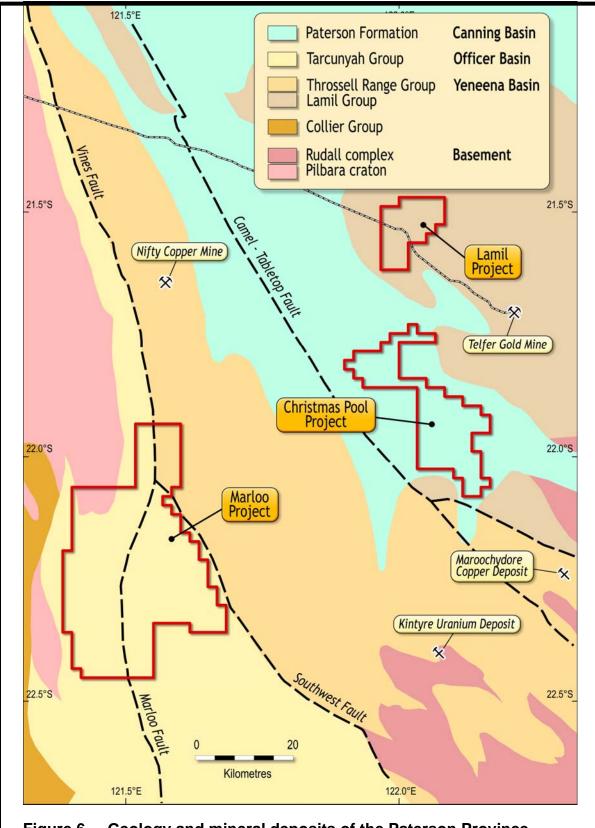


Figure 6. Geology and mineral deposits of the Paterson Province, showing location of Avalon's project areas.

# 3. PATERSON PROJECTS

# 3.1. Introduction

Avalon has secured seven exploration licenses, under application, covering 1,409 square kilometres in the Paterson Province, 400 kilometres southeast of Port Hedland in the central north of Western Australia (Figure 1). The tenements comprise three project areas with potential for gold, base metal and uranium mineralisation.

The Paterson Province is well endowed with major mineral deposits (Figure 6) but has had less exploration than many other areas of Western Australia because of its remoteness and limited bedrock exposure. Despite its remoteness, there is significant infrastructure in the area, including operating mines at Telfer (gold), Nifty (copper) and Woodie Woodie (manganese), and a natural gas pipeline from Port Hedland.

### 3.1.1. Geology of the Paterson Province

In the Paterson Province, the Palaeoproterozoic Rudall Complex forms a crystalline basement, which is unconformably overlain by sedimentary successions of the Neoproterozoic Yeneena Basin. Components of the Yeneena Basin are the Lamil Group and the Throssell Range Group (Figure 6).

Sedimentary rocks of the Neoproterozoic Tarcunyah Group of the northwest Officer Basin are separated from the Throssell Range Group by the Vines – Southwest Fault. The Tarcunyah, Throssell Range and Lamil Groups were deformed together during the Miles Orogeny, at around 720Ma.

Following the Miles Orogeny, granites of the O'Callaghan Supersuite intruded the Lamil Group at around 654Ma. The O'Callaghan Supersuite is subdivided into an oxidized Crofton Suite and a reduced O'Callaghan Suite of intrusions.

Permian fluvioglacial sediments of the Paterson Formation were deposited late in the history of the Paterson Province and locally cover the prospective Neoproterozoic rocks. A large embayment of this depositional basin, referred to as the Waukarlykarly Embayment, strikes SSE between the Nifty and Telfer mines (Figure 6). Avalon's Christmas Pool Project lies towards the southernmost end of this embayment.

Recently released DOIR aeromagnetic and gravity data sets have highlighted structures, particularly NE to NNE faults that were previously unknown or not fully

appreciated. Nifty and Telfer both lie on or near NE to NNE gravity lineaments. These basement-penetrating structures are considered to be important controls on mineralisation in the Paterson Province, providing conduits for a range of ore fluids.

### 3.1.2. Mineralisation in the Paterson Province

Over 6 million ounces of gold have been produced from the world class Telfer mine since 1977. At 30 June 2006, Measured Resources were 140Mt at 1.2g/t Au, Indicated Resources were 250Mt at 1.8g/t Au, and Inferred resources were 110Mt at 1.3g/t Au, equivalent to another 24.5 million ounces of gold.

The Telfer deposit consists of stacked quartz-sulphide reefs in the hinge zone of a dome (doubly plunging anticline) in Lamil Group metasedimentary rocks. Preferred host rocks are calcareous and carbonaceous siltstone of the Telfer Member in the Malu Formation of the Lamil Group. Most genetic models associate gold mineralisation at Telfer with a reduced granite intrusion of the O'Callaghan Suite but the mineralisation is distal (>5 kilometres) from the intrusion. The Telfer deposit lies within a zone of closely spaced NE-trending gravity lineaments.

Additionally, there are several subeconomic copper(-gold) occurrences and prospects, including 17 Mile Hill and Minyari, which are interpreted as porphyry-style and skarn deposits, respectively, and are linked to oxidized granite intrusions of the Crofton Suite.

The Paterson Province also hosts two significant copper deposits, Nifty and Maroochydore.

Nifty has an Indicated Resource of approximately 148Mt at 1.3% copper. It is a strata-bound epigenetic deposit located in carbonate rocks and shale of the Broadhurst Formation (in the Throssell Range Group). Copper sulphides at Nifty have been interpreted as having been deposited from fluids which were derived deep within the Yeneena basin and migrated along thrust faults during the Miles Orogeny.

It is notable that the Nifty deposit is located on one of the NE to NNE fractures described above. Nifty lies on a section where the fracture orientation is almost N-S rather than NNE. Movement on this structure during the Miles Orogeny would have generated a localized compressional environment at Nifty with potential for dilation, fluid focusing and vein formation.

The Maroochydore copper deposit is hosted in black shale and dolomitic sediments in a similar setting to the Nifty deposit.

The Broadhurst Formation of the Throssell Range Group hosts several stratiform to strata-bound Pb-Zn sulphide deposits, generally hosted in pyritic, carbonaceous shale. Although they are currently sub-economic, the style of mineralisation represented by these deposits is probably sedimentary-exhalative (SEDEX) in origin, similar to the Mt Isa Pb-Zn style of mineralisation. The Broadhurst Formation and similar rock types of the Tarcunyah Group on Avalon's tenements are prospective for this style of Pb-Zn sulphide mineralisation.

There are a number of copper occurrences (e.g. Copper Lake) in the Tarcunyah Group, 150 kilometres SSE of Telfer, near the confluence of the Camel-Tabletop and Southwest Faults. These occurrences highlight the economic potential of the Tarcunyah Group for base metal mineralisation.

The Kintyre uranium deposit, one of the larger known deposits in Western Australia, is located in the Rudall Complex, about 40 kilometres east of the Marloo project. Kintyre is an unconformity-associated vein-style deposit. Uranium mineralisation at Kintyre is considered to be related to oxidized fluids which moved through faults in the Rudall Complex, and deposited uranium in the bedrock immediately below the unconformity.

A number of prospects with anomalous pitchblende and secondary uranium minerals are located in the upper Coolbro Sandstone near its contact with the overlying Broadhurst Formation. This horizon was targeted by regional uranium exploration between 1978 and 1982.

### 3.1.3 Avalon's Exploration Strategy

Avalon intends to explore for gold, base metals and uranium in the Paterson region. Avalon plans to use surface geochemistry, geology and geophysics (particularly IP) to develop potential drill targets in areas that have already been identified on the basis of new DOIR aeromagnetic and gravity data, and past exploration results.

The NE to NNE structures and possible buried intrusions highlighted by the new geophysical data are key factors in Avalon's targeting strategy, particularly where these are associated with significant past exploration results.

Avalon has purchased Aster spectral data for the tenement areas and will collaborate with CSIRO or a commercial group to highlight the distribution of minerals such as chlorite, sericite and illite that are commonly found in alteration associated with gold, base metal and uranium mineralisation.

The depth of Paterson Formation cover is a critical issue for some targets. Modeling of aeromagnetic and gravity data will be undertaken to estimate the depths of cover where the Proterozoic basement is not exposed.

# 3.2. Marloo Project

### 3.2.1. Location and Tenure

The Marloo tenement group incorporates E45/2830, E45/2831, E45/2832 and E45/2872 covering 980 square kilometres. The tenements, which are under application, are located 85 kilometres southwest of Telfer gold mine and 50 kilometres south of the Nifty copper mine (Figure 6).

Access is by four wheel drive track from a maintained road that links Woodie Woodie mining centre with the Nifty mine. It is estimated that approximately 135km of new or re-graded track will be required to provide access to all of Avalon's Marloo prospect areas.

### 3.2.2. Geology and Mineralisation

The Marloo tenement group is located in the northern Officer Basin and most of the tenement area is underlain by metasedimentary rocks of the Tarcunyah Group (Figure 7). Coolbro Sandstone and Broadhurst Formation of the Throssell Range Group underlie the northeastern part of E45/2832. The Vines, Marloo and Southwest Faults are all major structures that separate blocks of geologically different crust. Aeromagnetic data suggest that the Marloo-Sandy fault system lies along the margin of an ancient continental fragment (the Archaean Pilbara craton), a favourable tectonic environment for gold and base metal mineralisation.

The Vines-Marloo Fault system was a zone of intense deformation during the Miles Orogeny, at a time when the Nifty copper deposit is believed to have formed.

Several prominent NE to NNE fractures, which have been interpreted from DOIR aeromagnetic and gravity data, cross the Marloo tenements (Figure 7).

Recent DOIR aeromagnetic data have also revealed the likely presence of granite intrusions at depth on E45/2832 (Figure 7). The more strongly magnetic intrusion is interpreted as a member of the Crofton Suite. The larger intrusion is weakly magnetic and may belong to the O'Callaghan Suite. The features interpreted as intrusions have diffuse boundaries and lack internal structure, which suggest they lie at a relatively deep level beneath the surface.

Permian Paterson Formation outcrops locally on the Marloo tenements but the thickness of this cover sequence is probably quite limited over large areas of the Marloo tenements, as geological maps published by the Western Australia Geological Survey show widespread outcrops of Proterozoic rocks.

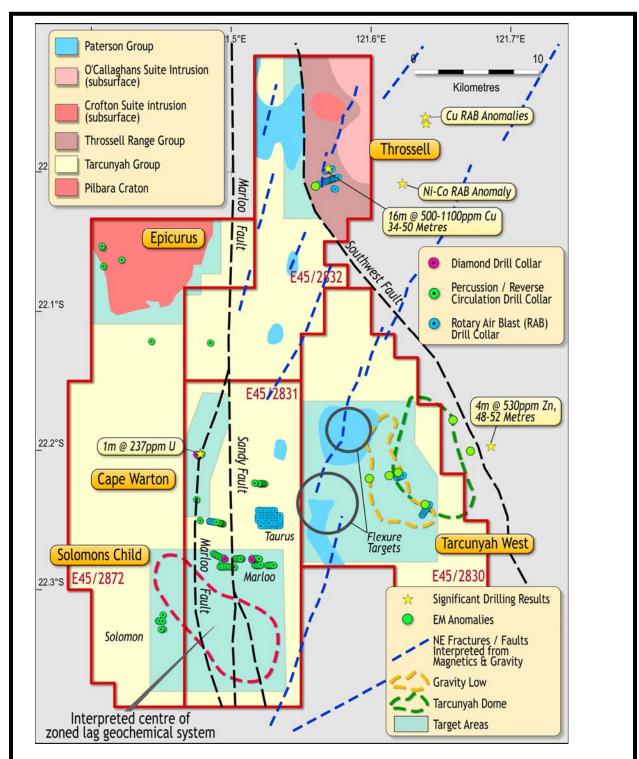


Figure 7. Geology, base metal deposits and occurrences, and drill hole locations, Marloo Project, showing Avalon's target areas (geology and data derived from GSWA Paterson MOEP, DOIR aeromagnetic and gravity data and reports in DOIR WAMEX database).

### 3.2.3. **Previous Exploration**

The Marloo tenement area has been a focus for gold and base metals since the 1980s. Most exploration has been directed towards base metals with early explorers motivated by the discovery of the large Nifty copper deposit in the Broadhurst Formation. Previous explorers have emphasized a role for NE-trending faults in controlling the second and third order depositional basins, which commonly host sedimentary-exhalative Pb-Zn deposits, and also may be an important control on copper mineralisation at Nifty.

Extensive reconnaissance lag and rock chip sampling carried out in the early 1990s was followed by more detailed sampling in areas of anomalism. Sampling was concentrated along the Marloo-Sandy Fault system. The results of these activities defined several base metal prospects (e.g. Taurus, Marloo, see Figure 7). Limited follow up drilling indicated the presence of chalcopyrite in quartz-carbonate veins hosted by sedimentary rocks of the Tarcunyah Group but intersected only low-level mineralisation.

At the Marloo prospect, lag sampling defined a 3km X 3km Zn-Cu-Pb-As-Sb-Bi-U anomaly with up to 8,000ppm Zn, 5160ppm Pb, 850ppm Cu, 1,780ppm Co and 52ppm U. At the Taurus prospect, lag and rock chip samples define a 700 X 600 metre As-Mo lag anomaly with samples returning up to 1,800ppm As, 26.1ppm Mo, 201ppm Pb, 204ppm Zn (coincident); and up to 50ppm Mo (non-coincident).

Other anomalous rock chip samples (e.g. 508ppm Cu, 635ppm Zn and 349ppm Pb, 498ppm Zn) in southern E45/2831 have not been followed up by drilling.

The Epicurus prospect is located on the southwest margin of the Archaean Gregory Granitic Complex, on the unconformity with the overlying Tarcunyah Group. Lag samples outline a 1,000 X 1,000 metre U-Ce-Ba-Cu-Pb-Mn anomaly over granite. Peak (non-coincident) results were 100ppm U, 4,040ppm Pb, 177ppm Zn, and 59ppm Mo. Four RC holes targeted geological and ground magnetic features of interest but did not specifically test the lag geochemical anomaly. The holes intersected oxidized granite with specular hematite, moderate chlorite alteration and traces of pyrite but no anomalous results were reported.

At Cape Warton, a percussion hole drilled to 136 metres adjacent to the Marloo Fault returned 1 metre of 237ppm U and 716ppm Zn, between 117 and 118 metres (Figure 7). This was within a broader intersection of anomalous U (>10ppm) between 114 and 120 metres. Drill logs indicate that the anomalous interval is on a contact between sandstone and shale, and is associated with quartz-dolomite-pyrite. Widespread hematite is present in sandstones of the Tarcunyah Group. There are only two other percussion drill holes in the area, neither of which intersected anomalous uranium. A diamond hole drilled below the anomalous intersection returned 11.14ppm U between 175 and 177.05 metres. Rock chips in the same area

contain high lead contents (up to 7.99%) and barium (up to 1.61%) and anomalous Mo (65ppm Mo).

In the 1980s, exploration for base metals around the Tarcunyah dome targeted Mt Isa-style sedimentary-exhalative mineralisation. Several EM anomalies were identified from ground traverses over the interpreted contact between sandstone and shale. RAB drilling (68 holes) over the EM anomalies intersected weakly anomalous base metal values including 4 metres at 530ppm Zn (east of Avalon's E45/2830) but some of the EM anomalies remain unexplained.

Another ground EM traverse across a portion of southeast E45/2832 was followed up with RAB drilling. RAB results included several anomalous copper intersections with a best intercept of 16 metres of 500-1,100ppm Cu in a hole located on or close to the Southwest Fault (Figure 7).

### 3.2.4 Targets and Prospects

Avalon has identified five target areas in the Marloo Project area.

### Solomon's Child

The Solomon's Child prospect arises from a re-appraisal of lag results of previous explorers.

It is notable that lag anomalies define a district-scale zoned geochemical system centred on the Vines-Sandy Fault system. The centre of the geochemical system (Solomon's Child) is formed by copper anomalies (Figure 7). The system is zoned outwards through a transition zone containing lead, zinc and molybdenum anomalies to a distal zone of As-Ba and Ag anomalies.

It is important to note that, although above the internal anomaly threshold of the data set, the absolute abundances of metals in these anomalies are not particularly high. Nevertheless, the zonal pattern conforms to a classic intrusion-related hydrothermal system, which has not been previously recognized and warrants further investigation.

The core of the zoned anomaly pattern constitutes the Solomon's Child prospect, in which there has been no previous drilling.

### Tarcunyah West

Recently released DOIR aeromagnetic data show two north-trending flexures, similar to that at Nifty in the main fracture crossing E45/2830 (circled, Figure 7). These north-trending flexures are seen as potential sites for Nifty-style structurally-controlled copper mineralisation. The southern flexure is associated with a broad silver in lag anomaly. Both are associated with units of Paterson Formation cover, and it will be necessary to determine the thickness of this cover at an early stage.

These flexures may have controlled the development of third order sedimentary basins during deposition of the Tarcunyah Group. A gravity low between the NNE fracture and the Tarcunyah dome (Figure 7) is interpreted as a second order depositional basin. Accumulation of base metal-rich sediments in second and third order sedimentary basins is a key component of genetic models for sedimentary exhalative (Mt Isa-style) base metal sulphide deposits.

RAB drilling of EM anomalies around the margins of the Tarcunyah dome demonstrated the presence of anomalous Zn-rich sedimentary rocks just east of E45/2830 (Figure 7). Some of the EM anomalies have not been tested by drilling.

#### Throssell Granites

The smaller, stronger magnetic anomaly revealed by new aeromagnetic data is interpreted as a possible member of the Crofton Suite, with potential for associated copper(-gold) mineralisation (e.g. 17 Mile Hill). The larger anomaly, which overlaps the boundaries of E45/2832, is interpreted as a possible member of the O'Callaghan Suite, with potential for associated gold(-copper) mineralisation (e.g. Telfer).

There are only two widely spaced lines of lag sampling on the Throssell Granites prospect area. A previous explorer also ran a 5.5 kilometre ground EM traverse across the Southwest Fault, 5 kilometres south of the interpreted Crofton Suite intrusion and near the margin of the interpreted O'Callaghan Suite intrusion. About 30 RAB holes were drilled in this area. Results include several anomalous copper intersections with a best intercept of 16 metres at 839ppm Cu in a hole located on or close to a NE fracture (Figure 7). The anomalous zone is open at the bottom of the hole. A second intersection of 4 metres at 900ppm Cu was reported from a RAB hole, 800 metres to the SSE of the first.

The probability that the interpreted intrusions are relatively deep below the present erosion surface is not seen as a negative exploration factor since gold(-copper) mineralisation may be distal (at least 5 km at Telfer) from the causative intrusion. The proximity of the Southwest Fault and a major NE fracture to the intrusions represents an attractive conceptual target, which is further enhanced by the anomalous copper in RAB intersections.

The regionally anomalous upper Coolbro Sandstone contact is present in the northern part of E45/2832, but has had no recorded exploration for uranium.

#### Epicurus

The multi-element anomaly at Epicurus lies immediately below an unconformity. Epicurus lies along strike to the south of several lead sulphide occurrences located within a network of mainly N-S faults. These faults may have been conduits for fluids that deposited uranium at favourable horizons such as the unconformity. The geology of the Epicurus prospect invokes comparison with other unconformity-related uranium deposits such as Kintyre to the east of Marloo and the Alligator River field in the Northern Territory.

#### Cape Warton

The thin intersection of anomalous uranium in a percussion hole at Cape Warton is associated with multi-element rock chip and lag anomalism. There is potential for uranium mineralisation in sedimentary rocks of the Tarcunyah Group, where deposition of uranium may have been caused by redox reactions. A similar mechanism of formation to the Kintyre deposit is envisaged with fluid moving along major structures such as the Marloo Fault and deposition of uranium at suitable trap sites by reaction with reduced host rocks such as carbonaceous shale.

### 3.2.5. Exploration Programme and Budget

The exploration budget for Marloo is \$195,300.

Avalon plans to carry out geological mapping and further lag and rock chip sampling at the Solomon's Child prospect in order to develop drill targets. IP traverses across the Marloo and Sandy Faults may be conducted later to test for sulphide mineralisation that does not intersect the present land surface.

Avalon plans to re-examine the SIROTEM anomalies on E45/2830 (Tarcunyah West), which are located near the margins of the interpreted second order sedimentary basin (Figure 8), and to test the targets with percussion drilling to a target depth of 250 metres. A series of IP traverses may later be conducted across the interpreted third order basins represented by flexures in the NE fracture to detect evidence of sulphides at depth.

Avalon plans to remodel the EM anomaly at Throssel Granites to determine the depth of the conductor and to drill reconnaissance RAB traverses across the smaller, stronger magnetic anomaly, the NE fracture and the margin of the larger, weaker magnetic anomaly. Avalon will assay all RAB samples for uranium as well as base metals and gold.

Aster data will be processed to highlight sericite, chlorite and other alteration minerals that may be associated with gold, base metal or uranium mineralisation.

Avalon plans to review exploration data at Epicurus and extend lag, rock chip and soil sampling along the almost 20 kilometres of unconformity on E45/2872. Additionally, Aster satellite data over Marloo will be processed to highlight the distribution of minerals such as illite, sericite and chlorite, which form an alteration halo around the Narbalek uranium deposits.

Avalon plans to follow up the Cape Warton uranium occurrence with lag, rock chip and soil sampling surface prospecting.

Avalon has allocated \$22,000 for grading tracks and \$20,000 for tenement costs, reporting and administration on Marloo.

# Budget: Marloo Project

SOLOMON'S CHILE	) PROSPE	СТ			
Activity	Phase	Year	Total Cost		
Geological mapping and sampling	1	2	\$15,350		
Subtotal			\$15,350		
TARCUNYAH WES	<u> F PROSPE</u>	СТ			
Activity	Phase	Year	Total Cost		
Geological mapping and sampling	1	2	\$2,100		
Re-appraisal of EM anomalies	1	2	\$3,000		
Percussion drilling (250 metres)	2	2	\$28,400		
			<b>4</b>		
Subtotal			\$33,500		
THROSSEL GRANITI		-	T.( 10		
Activity	Phase	Year	Total Cost		
Dressesing of Actor data	4	4	¢0,000		
Processing of Aster data	1	1	\$3,000		
Geological mapping and sampling	1	2	\$3,150		
Re-appraisal of EM anomaly	1	2	\$1,000 \$86,500		
RAB drilling (1,500 metres)	2	2	\$86,500		
Subtotal			\$93,650		
EPICURUS PR			<i>\$</i> 93,030		
Activity	Phase	Year	Total Cost		
Addivity	Thuse	Tear			
Geological mapping, sampling and	1	2	\$7,000		
ground radiometrics	•	_	¢1,000		
Subtotal			\$7,000		
CAPE WARTON PROSPECT					
Activity	Phase	Year	Total Cost		
Geological mapping, sampling and	1	2	\$3,800		
ground radiometrics					
Subtotal			\$3,800		
Grading of tracks			\$22,000		
Administration, reporting, tenement			\$20,000		
costs			\$195,300		
TOTAL					

# 3.3. Christmas Pool Project

### 3.3.1. Location and Tenure

The Christmas Pool tenements (E45/2828 and E45/2829), which are held under application and encompass a little over 300 square kilometres, lie about 20 kilometres southwest of the Telfer mine.

Sand plains and eolian dunes dominate the terrain. The tenements can be accessed from the Port Hedland – Telfer road, via the Karakutakati Range, by a 4WD track to the Twelve Blocks prospect (Figure 8). Approximately 5 km of new graded track will be required for access.

# 3.3.2. Geology and Mineralisation

Quaternary eolian sand dunes trend northwest over most of Christmas Pool, with a lag of sand, ferricrete and pebbles exposed in interdune positions. The thickness of the Paterson Formation on Christmas Pool is unknown but the tenements lie within a major north northwest depositional channel known as the Waukarlykarly Embayment (Figure 6). A seismic traverse along the Port Hedland – Telfer road, 35 kilometres northwest of E45/2828, indicates at least 3 kilometres of Phanerozoic sediments may cover the prospective Proterozoic rocks. However, the Christmas Pool tenements lie 40 to 70 kilometres SSE of the seismic traverse, and outcrops of Proterozoic rocks to the SSE and west of Christmas Pool suggest the depth of Permian cover may be significantly thinner on Avalon's tenements.

A swarm of gravity lineaments strike northeast across Telfer gold mine area (Figure 8). One major lineament describes a broad S-shaped flexure, similar to that at Nifty, as it strikes N-S through central E45/2829.

There are no known mineral occurrences on Christmas Pool. However, GSWA geological maps indicate occurrences of gold, lead, zinc, arsenic, antimony and cerium in Proterozoic rocks along strike to the southeast of E45/2829, all within 4.5 kilometres of the tenement boundary.

# 3.3.3. Previous Exploration

There has been little exploration on Christmas Pool because of the Paterson Formation cover.

BLEG sampling in the early 1980s defined a broad gold anomaly (>0.2ppb Au) at Twelve Blocks, near the northeast corner of E45/2828 (Figure 8). Rock-chip sampling in this area identified zones of anomalous Cu-As in the nose and on the

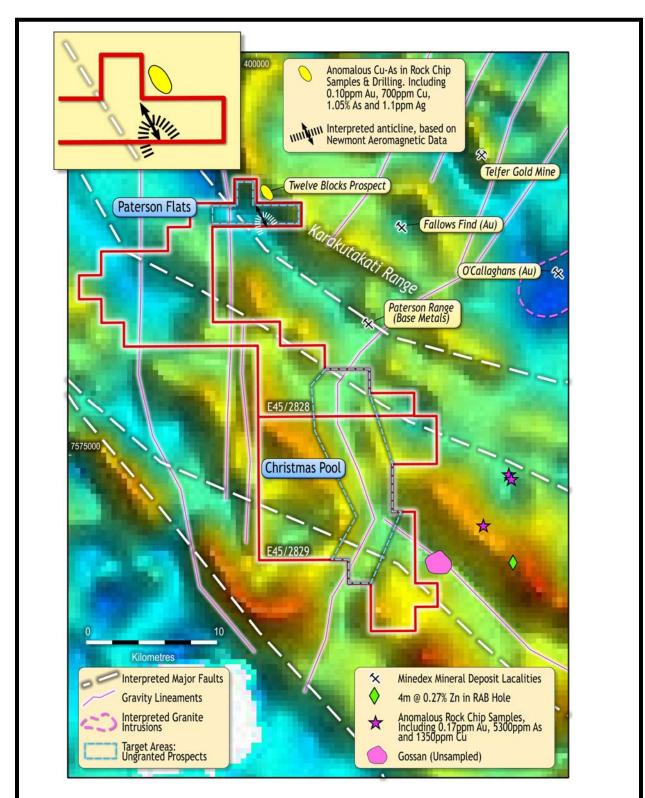


Figure 8. Gravtiy image of Christmas Pool Project, showing interpreted structures, mineral occurrences and significant past exploration results (image from GSWA web site and data derived from GSWA Paterson MOEP and DOIR WAMEX database).

NE flank of a tight anticlinal structure. Samples returned up to 0.12ppm Au, 700ppm Cu, 1.05% As and 1.1ppm Ag (non-coincident). Follow-up drilling intersected zones of anomalous Cu and As but no gold. The prospect was subsequently explored in the 1990s when RAB drilling returned a maximum gold assay of only 0.05ppm Au.

Previous exploration in the Proterozoic Lamil Group southeast of Christmas Pool has resulted in anomalous (Au, As, Cu) rock chip samples and a low-grade zinc intersection (Figure 8).

### 3.3.4. Targets and Prospects

The exploration potential of these tenements is critically dependent upon the depth of Paterson Formation cover. Modeling of DOIR aeromagnetic data will be undertaken by Avalon to determine the approximate depth and shape of the Paterson Formation on Christmas Pool.

### Paterson Flats

Aeromagnetic data indicate the presence of a second, en echelon anticline about 2 kilometres south of Twelve Blocks, in the northeast corner of Avalon's E45/2828 (Figure 8). Avalon views the buried anticline as a target (Paterson Flats) for Telferstyle gold mineralisation. Although drilling at Twelve Blocks has not encountered significant gold mineralisation, the anomalous Cu and As suggest a possible distal environment with respect to a Telfer-style gold system.

Previous drilling near Paterson Flats suggests the target probably lies beneath >50 metres of cover but the exact depth is unknown.

### Northeast gravity lineament

The prominent NE gravity lineament that strikes across E45/2829 and southern E45/2828 defines an S-shaped flexure similar to that seen at Nifty. The N-S oriented section of this major crustal structure is potentially a prime location for focusing of hydrothermal fluids with potential for gold and/or copper mineralisation. Indications of gold and base metal mineralisation in the Lamil Formation along strike to the southeast of E45/2829 are indicative of a possible mineralised environment in the Lamil Group below Paterson Formation cover. The Lamil Group on Christmas Pool may host more significant mineralisation than that found to the southeast because the basement is cut by a prominent NE structure that is not present to the southeast (Figure 8).

### 3.3.5. Exploration Programme and Budget

The exploration budget for Christmas Pool is \$45,500.

Avalon's first step will be to model the depth of cover using DOIR aeromagnetic data. If the depth of cover is not prohibitive, Avalon plan to commission a series of IP lines across the targets to test for the presence of sulphides.

Avalon have allocated \$800 for grading of tracks and \$7,500 for tenement costs, reporting and administration.

CHRISTMAS POOL PROSPECTS				
Activity	Phase	Year	Total Cost	
Geophysical modeling of cover	1	1	\$3,000	
IP surveys (9.5 line km)	2	2	\$34,200	
Grading of tracks			\$800	
Administration, reporting, tenement			\$7,500	
costs TOTAL			\$45,500	

# **Budget: Christmas Pool Project**

# 3.4. Lamil Project

# 3.4.1. Location and Tenure

Tenement E45/2827 is 25 kilometers northwest of Telfer gold mine and straddles the road to Telfer from Port Hedland (Figure 9). The Exploration License, which is under application, has an area of approximately 124 square kilometres. Approximately 16 km of track will need to be re-graded to provide access to the tenement from the Port Hedland - Telfer road.

# 3.4.2. Geology and Mineralisation

Aeromagnetic imagery (Figure 9) indicates that most of E45/2827 is underlain by magnetic granite of the Crofton Suite. The intrusion is reasonably well exposed south of the Telfer Road but north of the road it lies beneath Quaternary cover.

The aeromagnetic image shows a prominent N-S fracture cutting the Crofton Suite granite intrusion (Figure 9). The structure is coincident with a prominent gravity lineament suggesting that the N-S structure is deeply seated, probably intersecting the basement.

There are no known mineral occurrences on Lamil.

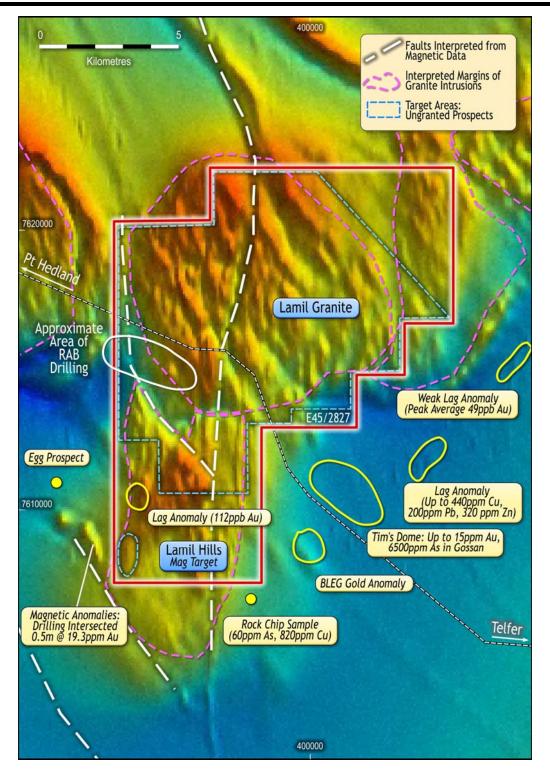


Figure 9. Magnetic image of Lamil Project, showing interpreted structures and significant past exploration results (image from GSWA web site and data derived from GSWA Paterson MOEP and DOIR WAMEX database).

### 3.4.3. Previous Exploration

Most previous exploration has been directed south of the Telfer road and relatively little exploration has taken place on ground covered by E45/2827.

Figure 9 shows the location of significant exploration results on and adjacent to E45/2827. The latter serve to indicate the anomalous geochemical environment within which the tenement is located.

In the 1980s, a small RAB programme targeted gold in a part of the granite intrusion on Lamil. Results include 0.27ppm gold in a RAB sample drilled through shallow cover (up to 5 metres) into the granite. However, this result could not be duplicated in two repeat assays.

# 3.4.4. Targets and Prospects

Very little exploration has been directed towards the Crofton Suite intrusion on tenement E45/2827 despite the regional association with copper(-gold) mineralisation (e.g. 17 Mile Hill, Minyari). This probably reflects past explorers' focus on directing exploration towards stratigraphic units that host gold at Telfer. Avalon has taken the view that structural control is the main exploration factor for Telfer-style mineralisation and that reaction with a specific host rock composition is only one of several mechanisms that can promote deposition of gold from the ore fluid.

Three magnetic anomalies located just outside the southwest corner of E45/2827 are associated with anomalous to ore grade gold drill intersections. A fourth magnetic feature lies just inside the southwest corner of the tenement (see inset, Figure 9) and represents a possible drill target.

# 3.4.5. Exploration Programme and Budget

The exploration budget for Lamil is \$30,540.

Avalon plan to carry out a soil sampling programme over the granite and its contacts to detect any near surface gold or base metal mineralisation. The area to be sampled, roughly 10 X 10 kilometres, is shown in Figure 9.

Avalon has allocated \$2,560 for grading tracks and \$5,000 for tenement costs, reporting and administration.

# **Budget: Lamil Project**

LAMIL PROSPECT				
Activity	Phase	Year	Total Cost	
Geophysical modeling of magnetic anomaly	1	1	\$1,000	
Soil and lag sampling	2	2	\$21,980	
Grading of tracks			\$2,560	
Adminsitration, reporting, tenement costs			\$5,000	
TOTAL			\$30,540	

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# 5. GLOSSARY OF TECHNICAL TERMS

**Airborne spectral data:** Measurements of the intensity of a range of wavelengths of radiance from the Earth's surface taken in an aerial survey.

**Anomaly threshold:** The lowest value at which the concentration of an element (e.g. zinc) in a sample is considered anomalous.

Anticline (doubly plunging, hinge): A folded rock sequence in which the older rocks occur in the core of the fold. The hinge is the maximum curvature inflection point on the folded surface. The hinge of a doubly-plunging anticline plunges away in two directions from an apical point, the folded surfaces thereby forming a dome.

**Aster satellite imagery:** Advanced Spaceborne Thermal Emission and Reflection radiometer, a high spatial resolution imaging sensor; a form of airborne spectral data.

**Basement:** The undifferentiated complex of rocks that underlies the rocks of interest in an area.

Basement high: See horst.

Calcite: A naturally occurring carbonate of calcium.

Chalcopyrite: A naturally occurring sulphide of copper.

**Clastic:** Describes a sedimentary rock composed principally of broken fragments that were eroded from older terranes. Clastic rocks are distinguished from chemical sedimentary rocks such as carbonates (limestone, dolomite), which are dominated by material precipitated from solution.

**Conglomerate:** A coarse-grained, clastic sedimentary rock comprising lithified cobbles and boulders in a sandy matrix.

**Country rock:** The rocks surrounding an igneous intrusion.

**Craton:** A part of the Earth's crust that has attained stability and has been little deformed for a long period; generally of Precambrian age.

**Devonian:** A geological period between 400 and 360 million years ago. Above the Silurian and below the Carboniferous.

**DOIR:** Western Australian Department of Industry and Resources.

**Dolomite:** A naturally occurring carbonate of calcium and magnesium.

**Dolostone:** A carbonate-rich rock dominated by the mineral dolomite.

**Dyke:** A tabular intrusion that cuts across the structure of the rocks into which it has been emplaced.

**Evaporite:** A chemical deposit, typically comprised of salts such as halite or gypsum, formed by evaporation of saline (commonly oceanic) water.

**Facies association:** An association of similar rocks with slight but significant differences or variations.

**Fanglomerate:** A sedimentary rock formed in alluvial fans and later cemented into a firm rock.

**Ferroan dolomite:** An iron-rich form of calcium-magnesium carbonate that forms a halo around some MVT base metal deposits. It is distinguished from the more usual forms of reef-building minerals, calcite (calcium carbonate) and dolomite (calcium-magnesium carbonate).

Galena: a naturally occurring sulphide of lead.

**Gossan:** An iron-rich rock formed by the weathering of sulphide minerals.

Greenschist facies: A metamorphic environment formed at 300° to 500°C.

**GSWA:** Geological Survey of Western Australia.

Horst: An uplifted block or ridge of a rock sequence or its basement.

**Hydrothermal fluid:** A naturally occurring hot solution of water and other chemical components that moves through the Earth's crust and may debouch onto the sea floor or land surface.

**Limestone:** A carbonate-rich rock composed predominantly of calcite.

**Marcasite:** A naturally occurring sulphide of iron; similar to pyrite but with a lower specific gravity.

**Niton portable XRF:** A portable hand-held XRF (X-ray fluorescence) analytical tool that can be used to rapidly acquire measurements of the concentration of zinc and other elements in rocks and soils.

Orogeny: Crustal scale deformation.

**Overpressure:** A pressure in excess of lithostatic pressure (lithostatic pressure is the weight of the overlying rock sequence).

**Permian:** A geological period between 290 and 450 million years ago. Above the Carboniferous and below the Triassic.

**Pitchblende:** A naturally occurring mineral form of uranium.

**Porphyry copper:** A variety of copper deposit associated with granitic intrusions at shallow depths; typically low grade but very large tonnage deposits that are amenable to low-cost bulk mining methods.

**Precambrian:** The oldest period of the geological time scale; before 570 million years ago.

**Proterozoic:** A subdivision of the Precambrian period.

**Redox (oxidized, reduced):** Reduction-oxidation; the tendency for the chemical potential of oxygen in a substance or system to increase (oxidation) or decrease (reduction).

Sandstone: A medium-grained sedimentary rocks comprising lithified sand.

Sedimentary basin: A depressed area in which sedimentary rocks accumulate.

**Sedimentary-exhalative:** The process by which stratiform ore forms due to the release of hydrothermal fluid into a water reservoir, normally the ocean.

**Skarn:** A rock comprising minerals containing significant amounts of silicon and calcium, commonly formed by reaction of host rocks (particularly limestone) with hydrothermal solutions derived from a granite intrusion. Skarns commonly contain base and precious metal mineralisation.

**Sphalerite:** A naturally occurring sulphide of zinc.

**Stockwork:** A three dimensional network of closely spaced veins, usually with a wide range of orientations.

**Tectonic:** The process of large-scale crustal movements.

**Transfer fault:** A fault that links two segments of a rift that are offset from one another.

**Unconformable:** Said of strata exhibiting the relation of unconformity to older, underlying rocks.

**Unconformity:** An old erosion surface separating two sedimentary sequences o different ages.

# 6. Solicitor's Report



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9 February 2007

The Board of Directors Avalon Minerals Ltd Level 1, 33 Ord Street WEST PERTH WA 6005

Dear Sirs

#### SOLICITOR'S REPORT ON TENEMENTS

This report is prepared for inclusion in a prospectus to be issued by Avalon Minerals Ltd on or about 9 February 2007 for the issue of 17,500,000 shares in the capital of the Company at an issue price of 20 cents per share to raise \$3.5 million (**Prospectus**).

# 1. ASSETS

As at the date of this report, Avalon Minerals Ltd (**Avalon** or **Company**), has entered into an agreement with Gregory Down, pursuant to which Gregory Down has agreed to sell the shares he holds in Xmin Ltd (**Xmin**), being the whole of the issued capital of Xmin. Xmin is the registered holder of 16 applications for the grant of mining tenements located in Western Australia.

As at the date of this report, Avalon has entered into various agreements with Baracus Pty Ltd (**Baracus**), under which Avalon will acquire 3 granted mining tenements and 2 applications for the grant of mining tenements located in Western Australia. These agreements for the acquisition of mining tenements and the agreement with Xmin are collectively defined in this report as **Agreements**. Additionally, all granted mining tenements and applications are collectively referred to in this report as the **Tenements**.

A schedule of the Tenements is attached to and forms part of this report (**Schedule**). Part I of the Schedule contains a list of the Tenements. Part II of the Schedule contains a summary of the material terms of the agreements relating to the Tenements. Part III of the Schedule contains a summary of the status of the native title claims existing over the Tenements.

#### 2. SEARCHES

For the purposes of this report, we have conducted searches and made enquiries in respect of all of the Tenements as follows:

- (a) we have reviewed searches of the Tenements in the registers maintained by the Western Australian Department of Industry and Resources (**DIR**). These searches were conducted on 2 January, 17 January 2007 and 8 February 2007;
- (b) we have obtained a register of extracts from the Register of Native Title Claims maintained by the National Native Title Tribunal (NNTT) in respect of registered native title claims identified in searches of the Tenements from the Land Claims Mapping Unit Division of the Department of Land Information (LCMUD). This material was obtained on 18 January 2007;
- (c) we have reviewed the agreements relating to the Tenements (Agreements) and summarised the material terms (details of which are set out in Part II of the Schedule); and

The Company's rights in respect of the various Tenements depends on the enforceability of the Agreements and the parties to the Agreements complying with and fulfilling the terms and conditions of such Agreements. We have advised Avalon to lodge a caveat in respect of any Tenements where the Company is not recorded as the registered holder to protect its equitable interest in the Tenements.

On the basis of the searches conducted and our review of the Agreements, subject to the enforceability of such Agreements, we consider that this report (and the Schedule) provides an accurate statement as to the status of the Tenements as at the date the relevant searches were obtained.

#### 3. OPINION

As a result of our searches and enquiries, but subject to the assumptions and qualifications set out below, we are of the view that, as at the date of the relevant searches:

- (a) the details of the Tenements included in this report are accurate as to the status of the Tenements and the Company's interest in the Tenements;
- (b) where title to a Tenement has not been granted or an application for extension of a term of a Tenement is pending, that fact is disclosed in the Schedule;
- (c) all applicable rents due under the *Mining Act 1978 (WA)* (**Mining Act**) in respect of the Tenements have been paid, unless otherwise noted in the Schedule; and
- (d) the valid grant of any of the current applications for Tenements which may affect native title will require compliance with the applicable processes of the *Native Title Act 1993* as amended by the *Native Title Amendment Act 1998 (Cth)* (which are together referred to as the **NTA**).

#### 4. TENEMENTS

The Tenements comprise exploration licences granted or applied for under the Mining Act.

The holder of an exploration licence is entitled to enter the land and undertake operations for the purposes of exploration for minerals. An exploration licence granted or applied for before 10 February 2006 remains in force for a term of 5 years. The Minister for State Development (**Minister**) may extend the term by a further period or periods of 1 or 2 years. Exploration licences granted or applied for after 10 February 2006 have a term of 5 years and may be extended for a further 5 years followed by a further period or periods of 2 years.

An exploration licence, or a legal or equitable interest in or affecting an exploration licence, cannot be assigned during the first year of its term without the prior written consent of the Minister. Thereafter, there is no restriction on assignment.

Exploration licences are described by graticular blocks, which range in area from approximately 2.8 square kilometres to 3.3 square kilometres. The holder of an exploration licence granted or applied for before 10 February 2006 must relinquish not less than half of the blocks comprising the licence at the end of the third year. A further relinquishment of not less than half of the remaining blocks is required at the end of the fourth year. The holder of an exploration licence granted or applied for after 10 February 2006 must relinquish not less than 40% of the blocks comprising the licence at the end of the fifth year.

Prior to the expiration of the term of any of the exploration licences set out in the Schedule, an application can be made to convert it to one or more mining leases providing the application is accompanied by a notice of intent to commence productive mining operations or a "mineralisation report" prepared by a qualified person and a statement setting out information about proposed mining operations. A mining lease accompanied by a "mineralisation report" will only be approved where the Director Geological Survey considers that there is a reasonable prospect that the mineralisation identified will result in a mining operation.

A mining lease remains in force for a period of 21 years and may be renewed for successive periods of 21 years. The underlying exploration licence will continue in force beyond its term if the holder has made an application for a mining lease over the area of the licence.

The Tenements are granted subject to various conditions prescribed by the Mining Act including payment of rent, compliance with minimum expenditure and meeting reporting requirements. The Tenements are also subject to statutory requirements of certain other Acts, including Aboriginal heritage legislation, environmental protection legislation and rights in water legislation. These standard conditions are not detailed in the Schedule.

#### 5. ABORIGINAL HERITAGE

There may be areas or objects of Aboriginal heritage located on the Tenements.

We have not undertaken searches to ascertain if any Aboriginal sites or objects have been registered in the vicinity of the Tenements as there is no obligation under the relevant legislation to register sites or objects. Further, the exact location of Aboriginal sites can not be ascertained from these searches. The Company must ensure that it is in compliance with the Commonwealth and Western Australian legislation relating to Aboriginal heritage as set out below. To ensure that it does not contravene such legislation, the Company would need to conduct heritage surveys to determine if any Aboriginal areas or objects exist within the area of the Tenements. Any interference with these sites must be in strict conformity with the provisions of the relevant legislation. It may also be necessary for the Company to enter into separate arrangements with the traditional owners of the sites.

### 5.1 Commonwealth Legislation

The Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth) (Commonwealth Heritage Act) is aimed at the preservation and protection of any Aboriginal areas and objects that may be located on the Tenements.

Under the Commonwealth Heritage Act, the Minister for Aboriginal Affairs may make interim or permanent declarations of preservation in relation to significant Aboriginal areas or objects, which have the potential to halt exploration activities. Compensation is payable by the Minister for Aboriginal Affairs to a person who is, or is likely to be, affected by a permanent declaration of preservation.

It is an offence to contravene a declaration made under the Commonwealth Heritage Act.

# 5.2 Western Australian Legislation

The granted Tenements are subject to an endorsement requiring the holder to comply with the requirements of the *Aboriginal Heritage Act 1972 (WA)* (**WA Heritage Act**).

The WA Heritage Act makes it an offence to alter or damage sacred ritual or ceremonial Aboriginal sites and areas of significance to Aboriginal persons.

The Minister's consent is required where any use of land is likely to result in the excavation or other alteration of or damage to an Aboriginal site or any objects on or under that site.

Aboriginal sites may be registered under the WA Heritage Act. However, there is no requirement for a site to be registered and the WA Heritage Act protects all registered and unregistered sites.

# 6. NATIVE TITLE – LEGISLATION

#### 6.1 Generally

On 3 June 1992, the High Court of Australia held in *Mabo v. Queensland (no.2) (1992) 175 CLR 1 (Mabo #2)* that the common law of Australia recognises a form of native title which reflects the entitlements of Aboriginal people to their traditional lands in accordance with their traditional laws and customs. In order to succeed in a native title claim the persons making such claim must show that they enjoy certain customary rights and privileges in respect of a particular area of land and that by these rights and privileges they have a connection with that land.

In *Mabo #2*, the High Court held that native title could be extinguished through loss of traditional connection with the land or by legislative or executive actions which are inconsistent with the continued right to enjoy native title. In particular, native title may be extinguished by the State:

- (a) granting a title or interest in land, such as a freehold or leasehold title; or
- (b) appropriating or reserving and using land for a public purpose such as public works,

which is inconsistent with the continued right to enjoy native title in respect of the same land. Extinguishment may be whole or partial depending upon the nature of the State's action. The principles concerning extinguishment have been developed in subsequent High Court and Federal Court decisions.

The grant of a mining tenement only partially extinguishes native title rights and interests. Under Section 44H of the NTA and at common law, the rights held under mining tenements will prevail over any inconsistent native title rights. In the case of exploration licences, recent court decisions have held that there is considerable scope for the co-existence of native title rights and the exploration licensee's rights.

The Commonwealth Parliament responded to the Mabo decision by passing the *Native Title Act 1993 (Cth)*. This Act enabled a State Parliament to validate any mining tenements granted prior to its commencement which might otherwise have been invalid. The *Native Title Act 1993* was extensively amended by the *Native Title Amendment Act 1998 (Cth)*.

#### 6.2 Western Australia

The Western Australian Parliament has enacted the *Titles (Validation) and Native Title (Effect of Past Acts) Act* 1995 (WA) which adopts the NTA.

The majority of the High Court concluded in the recent *Ward* decision (8 August 2002) that, among other things:

- (a) native title has been wholly extinguished in respect of land the subject of freehold, public works or other previous "exclusive possession" acts, and in respect of minerals and petroleum which are vested in the Crown, as well as various other grants and vestings; and
- (b) native title has been partially extinguished as a result of the grant of "non-exclusive possession" pastoral leases and mining leases, and also as a result of the creation of certain reserves.

We have not researched the underlying land tenure in respect of the Tenements in order to determine the extent of extinguishment for the purposes of this report.

# 7. NATIVE TITLE – CLAIMS

Persons claiming to hold native title may lodge an application for determination of native title with the Federal Court. The Court will then refer the application to the Native Title Registrar for the registration test.

If the Native Title Registrar is satisfied that the lodged claim meets the registration requirements set out in the NTA (**Registration Test**), it will be entered on the Register of Native Title Claims maintained by the National Native Title Tribunal (**Register**). Claimants of registered claims are afforded certain procedural rights under the NTA including the "right to negotiate".

Claims which fail to meet the Registration Test are recorded on the Schedule of Applications Received. Such claims may be entered on the Register at a later date if additional information is provided by the claimant that satisfies the Registration Test. If a claim fails to meet the Registration Test, this only means that the native title claimants do not have access to the future act procedures under the NTA. It does not mean that the claim has been dismissed or discontinued. An unregistered claim must still be heard and determined by the Federal Court.

Some of the Tenements relate to land which is currently the subject of one or more registered native title claims. These claims are identified in Part III of the Schedule. The fact that a claim has been lodged does not necessarily mean that native title exists over the area claimed, nor does the absence of a claim necessarily indicate that no native title exists over that area.

We have not undertaken the considerable historical, anthropological and ethnographic work that would be required to determine the likelihood that existing claims may be successful, or the possibility of any further native title claims being made in the future.

In any event, the existence of native title is not the main issue for the Company as the purchaser of the Tenements. The main issue is the existence of a registered native title claim. That effectively requires the Company to observe the provisions of the NTA in proceeding with its applications for Tenements. The reason for this is that an act which affects native title rights such as the grant of a mining tenement may be invalid unless there has been compliance with the provisions of the NTA. Until the native title claim has been determined by the Federal Court the existence of native title will be uncertain. Prudence dictates that native title should be assumed to exist over all claimed land other than freehold, "exclusive possession" leasehold or vested reserve until the claim has been determined.

# 8. NATIVE TITLE – VALIDITY OF TITLES

#### 8.1 Tenements granted since 23 December 1996

Holder	Tenements
Baracus	E04/1423-I, E04/1506, E04/1508

The following Tenements have been granted since 23 December 1996:

Mining tenements granted since 23 December 1996 may be invalid if they were granted over land other than freehold, "exclusive possession" leasehold or vested reserve and the applicable processes prescribed by the NTA were not complied with.

So in summary, on the basis that the procedural requirements of the NTA were complied with prior to their grant, each of those Tenements is valid so far as native title is concerned.

# 8.2 Future Tenement Grants

The following Tenements are current applications:

Holder	Tenements
Baracus	E04/1421, E04/1422

Holder	Tenements
Xmin	E80/3627, E80/3628, E80/3629, E80/3630, E80/3631, E80/3632, E80/3633, E80/3634, E80/3635, E45/2827, E45/2828, E45/2829, E45/2830, E45/2831, E45/2832, E45/2872

#### The Right to Negotiate

The valid grant of any of the current applications for Tenements which may affect native title requires compliance with the provisions of the NTA.

The NTA regulates all future actions (such as the grant of a mining tenement) which affect native title rights. These actions are known as "future acts". A future act will be valid if it falls within one of a number of categories of land dealings specified in the NTA provided that there is compliance with the applicable procedural requirements: NTA Part 2, Division 3, Subdivisions B-P.

Accordingly, if the grant of any of the current applications for Tenements affects native title, the grant will be a future act and will be valid only if there has been compliance with the relevant requirements of the NTA. In order to determine whether the grant of any of the current applications will affect native title, a determination must be made as to whether native title exists in the area. This will require a hearing by the Federal Court (or a consent determination) as to the existence of native title, which could take years. However, in the interim, the validity of the grant of the current applications for Tenements can be assured if the State and the applicants for the Tenements comply with the requirements of the NTA on the assumption that native title does in fact exist in the area.

These requirements are known as the "right to negotiate procedures". They are contained in Part 2 Division 3 Subdivision P of the NTA. They involve the notification and advertising of a proposed grant, negotiation by the State and the tenement applicant with any registered native title claimants and, if agreement cannot be reached, determination by the National Native Title Tribunal.

#### Western Australia

The valid grant of any of the Tenements which may affect native title requires full compliance with the usual procedures under the State's mining legislation in addition to compliance with the provisions of the NTA.

The NTA provides that, in relation to the grant of mining tenements in certain areas, a State law can operate in lieu of the right to negotiate process of the NTA. These areas are principally areas covered by pastoral leases. The Western Australian State Government has not yet introduced such a law.

In the case of low impact mining tenements, the State may nominate that the NTA expedited procedure applies. As a general practice, the State of Western Australia nominates the expedited procedure in relation to exploration licences. If the registered native title claimants do not object to the expedited procedure within four months after receiving notification of the proposed act, the grant

may proceed. If they do object and the objection is upheld by the National Native Title Tribunal, the right to negotiate procedure applies.

The DIR has also released a policy to facilitate the grant of exploration licence applications outside the right to negotiate procedure. The DIR has indicated its intention to grant exploration licences where the applicant is willing to enter into a standard Aboriginal heritage protection agreement (**HPA**). HPA's have been negotiated between the State, mining and exploration representative bodies, and Aboriginal representative bodies. The policy appears to be effective in achieving the grant of exploration licences.

# 9. QUALIFICATIONS

While the status of the Tenements is dealt with in the Schedule, we point out, by way of summary, that:

- (a) we have assumed the accuracy and completeness of all tenement searches and other information or responses which were obtained from the relevant department or authority. We cannot comment on any obligations of the Company that may arise from agreements that are not registered as a dealing, encumbrance or otherwise noted on the searches of the Tenements;
- (b) with respect to the Tenements, we have assumed the accuracy and completeness of the information which we have received from the various departments;
- (c) the holding of the Tenements is subject to compliance with the terms and conditions and the provisions of the Mining Act;
- (d) we have assumed the accuracy and completeness of any instructions or information which we have received from the Company or any of its officers, agents and representatives;
- (e) with respect to any application for the grant of a Tenement, we express no opinion as to whether such application will ultimately be granted and that reasonable conditions will be imposed upon grant, although we have no reason to believe that any application will be refused or that unreasonable conditions will be imposed;
- (f) where compliance with the requirements necessary to maintain a Tenement in good standing is not disclosed on the face of the searches referred to in this report, we express no opinion on such compliance;
- (g) references in the Schedule to any area of land are taken from details shown on searches obtained from the DIR. It is not possible to verify the accuracy of those areas without conducting a survey;
- (h) where Ministerial consent to any agreement or dealing referred to in Part II of the Schedule is being or will be sought, we express no opinion as to whether such consent will be granted, or the consequences of consent being refused, although we have no reason to believe that any application for consent will be refused; and
- (i) the information in the Schedule is accurate as at the date the relevant searches were obtained. We cannot comment on whether any changes have occurred in respect of the Tenements between the date of the searches and the date of the Prospectus.

# 10. CONSENT

This report is given solely for the benefit of the Company and the directors of the Company in connection with the issue of the Prospectus and is not to be relied on or disclosed to any other person or used for any other purpose or quoted or referred to in any public document or filed with any government body or other person without our prior consent.

Yours faithfully

prenlagen Sten

**STEINEPREIS PAGANIN** 

# PART I

# **TENEMENT SCHEDULE**

TENEMENT	HOLDER / APPLICANT	SHARES HELD	GRANT DATE (APPLICATION DATE)	EXPIRY DATE	AREA SIZE	ANNUAL RENT (NEXT RENTAL YEAR)	MINIMUM ANNUAL EXPENDITURE	ENCUMBRANCES/ DEALINGS	NOTES	NATIVE TITLE CLAIMS
E04/1423-I	Baracus Pty Ltd	100	13/12/2005	12/12/2010	70 blocks	\$7,353.50	\$70,000.00	Application to Amend 257206 (lodged 31 January 2007 currently pending)	C 1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 13, 14	WC99/19, Bunuba
E04/1506	Baracus Pty Ltd	100	20/06/2006	19/06/2011	51 blocks	\$5,357.55	\$51,000.00	Application to Amend 257196 (lodged 31 January 2007 currently pending)	D 1, 2, 3, 4, 5, 6, 7, 8, 10, 11	WC99/19, Bunuba
E04/1508	Baracus Pty Ltd	100	07/06/2006	06/06/2011	28 blocks	\$2,941.40	\$28,000.00	Application to Amend 257198 (lodged 31 January 2007 currently pending)	D 1, 2, 3, 4, 5, 6, 7, 8, 14	WC99/19, Bunuba
E04/1421	Baracus Pty Ltd	100	(23/09/2003)	-	70 blocks	N/A	No expenditure required yet	Application to Amend 257204 (lodged 31 January 2007 currently pending)	-	WC99/19, Bunuba
E04/1422	Baracus Pty Ltd	100	(23/09/2003)	-	70 blocks	N/A	No expenditure required yet	Application to Amend 257202 (lodged 31 January 2007 currently pending)	-	WC99/19, Bunuba
E80/3627	Xmin Ltd	100	(23/12/2005)	-	57 blocks	N/A	No expenditure required yet	-	-	WC00/10, Gooniyandi Combined 2
E80/3628	Xmin Ltd	100	(23/12/2005)	-	54 blocks	N/A	No expenditure required yet	-	-	WC00/10, Gooniyandi Combined 2
E80/3629	Xmin Ltd	100	(23/12/2005)	-	57 blocks	N/A	No expenditure required yet	-	-	WC00/10, Gooniyandi Combined 2
E80/3630	Xmin Ltd	100	(23/12/2005)	-	50 blocks	N/A	No expenditure required yet	-	-	WC00/10, Gooniyandi Combined 2
E80/3631	Xmin Ltd	100	(23/12/2005)	-	55 blocks	N/A	No expenditure required yet	-	-	WC00/10, Gooniyandi Combined 2
E80/3632	Xmin Ltd	100	(23/12/2005)	-	61 blocks	N/A	No expenditure required yet	-	-	WC00/10, Gooniyandi Combined 2

TENEMENT	HOLDER / APPLICANT	SHARES HELD	GRANT DATE (APPLICATION DATE)	EXPIRY DATE	AREA SIZE	ANNUAL RENT (NEXT RENTAL YEAR)	MINIMUM ANNUAL EXPENDITURE	ENCUMBRANCES/ DEALINGS	NOTES	NATIVE TITLE CLAIMS
E80/3633	Xmin Ltd	100	(23/12/2005)	-	56 blocks	N/A	No expenditure required yet	_	-	WC00/10, Gooniyandi Combined 2
E80/3634	Xmin Ltd	100	(23/12/2005)	-	56 blocks	N/A	No expenditure required yet	-	-	WC00/10, Gooniyandi Combined 2
E80/3635	Xmin Ltd	100	(23/12/2005)	-	62 blocks	N/A	No expenditure required yet	-	-	WC00/10, Gooniyandi Combined 2
E45/2827	Xmin Ltd	100	(16/12/2005)	-	39 blocks	N/A	No expenditure required yet	-	-	WC96/78, Martu
E45/2828	Xmin Ltd	100	(16/12/2005)	-	46 blocks	N/A	No expenditure required yet	-	-	WC96/78, Martu
E45/2829	Xmin Ltd	100	(16/12/2005)	-	50 blocks	N/A	No expenditure required yet	-	-	WC96/78, Martu
E45/2830	Xmin Ltd	100	(16/12/2005)	-	70 blocks	N/A	No expenditure required yet	-	-	WC96/78, Martu
E45/2831	Xmin Ltd	100	(16/12/2005)	-	70 blocks	N/A	No expenditure required yet	-	-	WC96/78, Martu
E45/2832	Xmin Ltd	100	(16/12/2005)	-	68 blocks	N/A	No expenditure required yet	-	-	WC96/78, Martu
E45/2872	Xmin Ltd	100	(08/03/2006)	-	101 blocks	N/A	No expenditure required yet	-	-	WC96/78, Martu WC99/08, Njamal WC05/06, Nyiyaparli

#### Key to Tenement Schedule

E – Exploration Licence

All of the native title claims listed in the Schedule have been accepted and entered on the Register of Native Title Claims. Please refer to Part III of this Report for the status of the Native Title Claims.

Unless otherwise indicated, capitalised terms have the same meaning given to them in the Prospectus.

References to numbers in the "Notes" column refers to the notes following this table. References to letters in the "Notes" column refers to the Agreements summarised in Part II of the Schedule.

Notes:

- 1. The licensee's attention is drawn to the provisions of the Aboriginal Heritage Act 1972 and any Regulations thereunder.
- 2. The licensee's attention is drawn to the Environmental Protection Act 1986 and the Environmental Protection (Clearing of Native Vegetation) Regulations 2004, which provides for the protection of all native vegetation from damage unless prior permission is obtained.
- 3. All surface holes drilled for the purpose of exploration are to be capped, filled or otherwise made safe immediately after completion.
- 4. All costeans and other disturbances to the surface of the land made as a result of exploration, including drill pads, grid lines and access tracks, being backfilled and rehabilitated to the satisfaction of the Environmental Officer, Department of Industry and Resources (**DoIR**). Backfilling and rehabilitation being required no later than 6 months after excavation unless otherwise approved in writing by the Environmental Officer, DoIR.
- 5. All waste materials, rubbish, plastic sample bags, abandoned equipment and temporary buildings being removed from the mining tenement prior to or at the termination of exploration program.
- 6. Unless the written approval of the Director, Environment Division, DolR is first obtained, the use of drilling rigs, scrapers, graders, bulldozers, backhoes or other mechanised equipment for surface disturbance or the excavation of costeans is prohibited. Following approval, all topsoil being removed ahead of mining operations and separately stockpiled for replacement after backfilling and/or completion of operations.
- 7. The Licensee notifying the holder of any underlying pastoral or grazing lease by telephone or in person, or by registered post if contact cannot be made, prior to undertaking airborne geophysical surveys or any ground disturbing activities utilising equipment such as scrapers, graders, bulldozers, backhoes, drilling rigs; water carting equipment or other mechanised equipment.
- 8. The Licensee or transferee, as the case may be, shall within thirty (30) days of receiving written notification of:
  - (a) the grant of the Licence; or
  - (b) registration of a transfer introducing a new Licensee,

advise, by registered post, the holder of any underlying pastoral or grazing lease details of the grant or transfer.

- 9. No interference with Geodetic Survey Station Wilson and mining within 15 metres thereof being confined to below a depth of 15 metres from the natural surface.
- 10. The grant of this licence does not include the land the subject of prior Exploration Licences 04/1128 and 04/1129. If the prior licences expire, are surrendered or forfeited that land may be included in this licence, subject to the provisions of the Third Schedule of the Mining Regulations 1981 titled "Transitional provisions relating to Geocentric Datum of Australia".
- 11. No interference with Geodetic Survey Station C 72 and mining within 15 metres thereof being confined to below a depth of 15 metres from the natural surface.
- 12. The licensee pursuant to the approval of the Minister for State Development under Section 111 of the Mining Act 1978 is authorised to explore for iron.
- 13. The prior written consent of the Minister for State Development being obtained before commencing mining on Quarry Reserve 38102 and Conservation Park 43101.
- 14. No interference with the use of the Aerial Landing Ground and mining thereon being confined to below a depth of 15 metres from the natural surface.

# PART II

#### MATERIAL CONTRACT SUMMARIES

#### A. Share Purchase Agreement

On 31 January 2007, Avalon entered into a share purchase agreement (**Share Purchase Agreement**) with Gregory Wayne Down (**Greg Down**). Under this agreement Avalon agreed to acquire 100% of the issued capital in Xmin.

Xmin has an interest in the tenements set out below:

Tenement	Holder	Interest	
Lennard Shelf Project			
E80/3627	Xmin	100%	
E80/3628	Xmin	100%	
E80/3629	Xmin	100%	
E80/3630	Xmin	100%	
E80/3631	Xmin	100%	
E80/3632	Xmin	100%	
E80/3633	Xmin	100%	
E80/3634	Xmin	100%	
E80/3635	Xmin	100%	
Paterson Range Project			
E45/2827	Xmin	100%	
E45/2828	Xmin	100%	
E45/2829	Xmin	100%	
E45/2830	Xmin	100%	
E45/2831	Xmin	100%	
E45/2832	Xmin	100%	
E45/2872	Xmin	100%	

Completion of the Share Purchase Agreement is subject to the following conditions precedent:

(a) Avalon conducting due diligence investigations in relation to Xmin, the tenements and the business by 31 January 2007. This condition has been satisfied;

- (b) admission of the Company's shares to the Official List of ASX by 30 April 2007; and
- (c) satisfaction of the Loan Facility Deed between Xmin and the Company.

Pursuant to the Loan Facility Deed, Avalon has agreed to provide Xmin with a \$250,000 loan facility repayable on demand by Avalon at any time following admission of Avalon's Shares to the Official List of the ASX.

The consideration payable by the Company under the Share Purchase Agreement is 5,000,000 Shares in Avalon and settlement will take place within 5 business days after the satisfaction or waiver of the conditions referred to above.

Greg Down has provided the Company with standard warranties including as to the status and good standing of the tenements.

#### B. Royalty Deed - Net Smelter Return

On 31 January 2007, Xmin and Greg Down entered into a Royalty Deed (**Royalty Deed**) on the following material terms and conditions:

- (a) Xmin agrees to pay to Greg Down a royalty in respect of any part of the minerals mined from the tenements listed in the schedule of the Royalty Deed, calculated in accordance with clause (b) below (**Royalty**). These tenements are all of the tenements held by Xmin as set out in the Share Purchase Agreement. The minerals are defined as lead and zinc mined on the Lennard Shelf Project tenements and gold, copper and uranium mined on the Paterson Range Project tenements.
- (b) the Royalty is payable quarterly, and is equal to 0.25% of:
  - the gross proceeds of sale, taking into account certain adjustments (excluding GST) received by Xmin during a quarter from the sale of minerals produced from the tenements; less
  - (ii) certain allowable deductions taking into account all adjustments incurred by Xmin referrable to the production of minerals from which the gross proceeds of sale were derived.
- (c) at the time of paying the Royalty, Xmin must also deliver to Greg Down a copy of all relevant documents which quantify the amount of the minerals mined from the tenements, including tonnes of minerals mined and the gross proceeds of sale during the quarter.
- (d) Xmin must maintain any samples of ore and concentrate and records of the quantity of minerals mined and processed each quarter. Xmin must permit a qualified person engaged by Greg Down to have access to Xmin's premises to inspect all of the books of account, records and samples maintained.
- (e) Xmin must not assign any part of the tenements unless the assignee executes a deed of covenant in favour of Greg Down agreeing to be bound by and observe the provisions of the Royalty Deed.
- (f) Greg Down may assign his entitlements under the Royalty Deed (Sale Interest) after the Sale Interest has first been offered to Xmin. Xmin shall have 30 days to accept the offer and if Xmin does not accept the offer within that period then Greg Down is free to sell the Sale Interest to a third party on the same terms and conditions and at a price not less than the amount offered to Xmin.

(g) the Royalty Deed is governed by the laws of Western Australia.

# C. Agreement for Sale of Mining Property (E04/1423)

On 16 January 2007, the Company entered into an agreement with Baracus pursuant to which Baracus agreed to sell and Avalon agreed to acquire exploration licence number E04/1423.

In consideration for the interest in E04/1423 acquired by the Company, the Company will:

- (a) issue 2,000,000 Avalon shares at a deemed issue price of 20 cents per Share to Baracus; and
- (b) pay \$20,000 to reimburse Baracus for its costs incurred in applying for the tenements comprising application fees, rent and rates.

Baracus has provided the Company with standard warranties including as to the status and good standing of the tenement.

#### D. Agreement for Sale of Mining Property (E04/1506 and E04/1508)

On 16 January 2007, the Company entered into an agreement with Baracus under which Avalon agreed to acquire exploration licence tenements whose numbers are E04/1506 and E04/1508.

The consideration payable by the Company for the acquisition is \$1.00 and \$16,000 to reimburse Baracus for its costs incurred in applying for the tenements comprising application fees, rent and rates.

The tenements cannot be transferred to the Company until 12 months after the tenements' grant date. Following settlement, Baracus will hold the mining tenements on trust for the Company until the expiry of the first year of the term for which that tenement was granted.

Baracus has provided the Company with standard warranties including as to the status and good standing of the tenements.

#### E. Agreement for Sale of Mining Property (E04/1421 and E04/1422)

On 16 January 2007, the Company entered into an Agreement for the Sale of Mining Property with Baracus to acquire a 100% interest in exploration licence applications whose numbers are E04/1421 and E04/1422. Baracus will retain the right to any diamonds located on E04/1421 and E04/1422.

The consideration payable by the Company for the acquisition is \$1.00 and \$18,000 to reimburse Baracus for its costs incurred in applying for the tenements.

# PART III

# STATUS OF NATIVE TITLE CLAIMS

TRIBUNAL NUMBER	FEDERAL COURT NUMBER	APPLICATION NAME	STATUS	RNTC STATUS	IN MEDIATION
WC99/19	WAD6133/98	Bunuba	Active	Registered	Yes
WC96/78	WAD6110/98	Martu	Active	Registered	Yes
WC00/10	WAD6008/00	Gooniyandi Combined #2	Active	Registered	Yes
W99/08	WAD6028/98	Njamal	Active	Registered	Yes
W05/06	WAD6280/98	Nyiyaparli	Active	Registered	No

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Section 7

9 February 2007

The Directors Avalon Minerals Ltd Level 1 33 Ord Street WEST PERTH WA 6005

Dear Sirs

# **Independent Accountant's Report**

# 1. Introduction

We have prepared this Independent Accountant's Report ("Report") at the request of the Directors of Avalon Minerals Ltd hereafter referred to as the Company for inclusion in a Prospectus to be dated on or about 9 February 2007 relating to the offer of 17,500,000 Shares at 20 cents per share in the Company to raise \$3,500,000 before capital raising costs ("Capital Raising").

The offer is not underwritten.

Expressions defined in the Prospectus have the same meaning in this Report.

# 2. Background Information

The Company was incorporated on 20 December 2006 for the purpose of mineral exploration in Australia. The Company has not traded since that date. The Historical Financial Information and Proforma Financial Information set out in Section 8 of the Prospectus have been prepared in accordance with the recognition and measurement (but not all of the disclosure) requirements of AIFRS.

# 3. Scope

We have been requested to prepare an Independent Accountant's Report covering the following financial information:

- Historical Financial Information comprising the historical Balance Sheet as at 8 February 2007 and the historical Income Statement, Statement of Changes in Equity, Cash Flow Statement and applicable notes to these statements for the period from incorporation on 20 December 2006 to 8 February 2007 set out in Section 8 of the Prospectus; and
- Proforma Financial Information comprising the proforma Balance Sheet as at 8 February 2007 which assumes completion of the contemplated transactions as at that date as set out in Section 8.5.6 of the Prospectus.

The Directors have prepared and are responsible for the Historical and Proforma Financial Information. We disclaim any responsibility for any reliance on this report or on the financial information to which it relates for any purposes other than that for which it was prepared. This Report should be read in conjunction with the full Prospectus.

# **Review of Historical Financial Information**

We have conducted an independent review of the Historical Financial Information in order to state whether on the basis of the procedures described, anything has come to our attention that would cause us to believe that the Historical Financial Information is not prepared in accordance with the measurement and recognition requirements (but not all of the disclosure requirements) of applicable Accounting Standards and other mandatory professional reporting requirements in Australia.

Our review has been conducted in accordance with Australian Auditing Standards applicable to review engagements and has been limited to reading of relevant Board minutes, inquiries of management personnel, analytical procedures applied to the financial data and certain limited verification procedures. These procedures do not provide all the evidence that would be required in an audit, thus the level of assurance provided is less than that given in an audit. We have not performed an audit and, accordingly, we do not express an audit opinion on the Historical Financial Information.

# **Review of Proforma Financial Information**

We have conducted an independent review of the Proforma Financial Information in order to state whether on the basis of the procedures described, anything has come to our attention that would cause us to believe that:

a) the proforma Balance Sheet has not been prepared on the basis of the assumptions set out in Section 8.5.6 of the Prospectus; and

b) is not applying the measurement and recognition requirements (but not all of the disclosure requirements) of applicable Accounting Standards and other mandatory professional reporting requirements in Australia as if the proforma transactions set out above had occurred at 8 February 2007.

Our review has been conducted in accordance with Australian Auditing Standards applicable to review engagements and has been limited to reading of relevant Board minutes, reading of contracts and other legal documents, inquiries of management personnel and analytical procedures applied to the financial data. We have also determined whether the proforma transactions form a reasonable basis for the preparation of the proforma Balance Sheet. These procedures do not provide all the evidence that would be required in an audit, thus the level of assurance provided is less than that given in an audit. We have not performed an audit and, accordingly, we do not express an audit opinion on the Proforma Financial Information.

# 4. **Review Statements**

# Historical Financial Information

Based on our review, which was not an audit, nothing has come to our attention which would cause us to believe the historical financial information of the Company as set out in Section 8 of the Prospectus is not prepared in accordance with the measurement and recognition requirements (but not all the disclosure requirements) of applicable Accounting Standards and other mandatory professional reporting requirements in Australia, to present:

- the financial position of the Company as at 8 February 2007; and
- the financial performance and cash flows of the Company for the period from incorporation on 20 December 2006 to 8 February 2007.

# Proforma Financial Information

Based on our review, which was not an audit, nothing has come to our attention which would cause us to believe the Proforma Financial Information as set out in Section 8 of the Prospectus :

- a) has not been prepared on the basis of the assumptions as set out in Section 8.5.6 of the Prospectus of the Company as at 8 February 2007, and
- b) is not applying the measurement and recognition requirements (but not all of the disclosure requirements) of applicable Accounting Standards and other mandatory professional reporting requirements in Australia as if the proforma transactions set out in Section 8.5.6 of the Prospectus had occurred on that date.

# 5. Subsequent Events

Apart from the matters dealt with in this Report and having regard to the scope of our Report, to the best of our knowledge and belief, no material transactions or events outside the ordinary business of the Company subsequent to 8 February 2007 have come to our attention which require comment on or adjustment to, the information referred to in our Report or that would cause such information to be misleading or deceptive.

# 6. Disclosure

Ernst & Young does not have any pecuniary interests that could reasonably be regarded as being capable of affecting its ability to give an unbiased opinion in this matter. Ernst & Young provides audit services to the Company, and will receive a professional fee for the preparation of this Report.

The Company has agreed to indemnify and hold harmless Ernst & Young and its employees from any claims arising out of misstatement or omission in any material or information supplied by the Company.

Consent to the inclusion of the Independent Accountant's Report in the Prospectus in the form and context in which it appears, has been given. At the date of this Report, this consent has not been withdrawn.

Yours faithfully

Cement + Young

Ernst & Young

# 8. Historical and Proforma Financial Information

8.1		INCOME STATEMENT	
		Period from	
		20/12/06 to 8/2/07	
		\$	
Continuing operations			
Other revenues from continuing operations		-	
Other expenses from continuing operations		49,879	
(Loss)/ profit from continuing operations before related income tax benefit / (expense)		(49,879)	
Income tax benefit / (expense) relating to continuing operations		-	
Net (loss)/profit		(49,879)	
8.2		BALANCE SI	HEET
012			PROFORMA
	Note	COMPANY	CONSOLIDATED
		As at 8/2/07	As at 8/2/07
Current Assets			
Cash and cash equivalents	8.5.2	341,000	3,491,000
Trade and other receivables		150,000	-
Total Current Assets		491,000	3,491,000
Non-current Assets			
Deferred expenditure		65,000	-
Purchased pre-exploration		-	1,250,000
Exploration and evaluation costs		204,000	204,000
Total Non-Current Assets		269,000	1,454,000
TOTAL ASSETS		760,000	4,945,000
Current Liabilities			
Trade and other payables		65,000	100,000
Total Current Liabilities		65,000	100,000
TOTAL LIABILITIES		65,000	100,000
NET ASSETS		695,000	4,845,000
Equity			
Issued capital	8.5.3	695,000	4,845,000
Option premium reserve	0.3.3	49,879	4,845,000 49,879
Accumulated losses		(49,879)	(49,879)
TOTAL EQUITY		695,000	4,845,000
IVIAL EQUILI		093,000	4,843,000

8.3	Note	CASH FLOW STATEMENT Period from 20/12/06 to 8/2/07
Cash flows from operating activities	Note	
Payments to suppliers and employees		-
Net cash from operating activities	-	-
Cash flows from investing activities		-
Payment for acquisition of tenements		(54,000)
Loan to Xmin Limited		(150,000)
Net cash from investing activities	_	(204,000)
Cash flows from financing activities		
Proceeds from issue of shares		545,000
Net cash from financing activities	-	545,000
Net increase in cash held		341,000
Cash at beginning of the financial period		-
Cash at the end of the financial period	8.5.2	341,000

8.4	STATEMENT OF CHANGES IN EQUITY					
	Issued Capital	Option Premium Reserve	Accumulated losses	Total Equity		
Issue of shares at date of incorporation	95,000	-	-	95,000		
Loss for the period	-	-	(49,879)	(49,879)		
Total income / (expense) for the period	-	-	(49,879)	45,121		
Issue of ordinary shares - seed	450,000	-	-	450,000		
Issue of ordinary shares – acquisition of tenements	150,000	-		150,000		
Grant of options	-	49,879	-	49,879		
At 8 February 2007	695,000	49,879	(49,879)	695,000		

#### 8.5 Notes to the Historical and Proforma Financial Information

# 8.5.1 Statement of Significant Accounting Policies

The significant policies, which have been adopted in the preparation of the historical and proforma financial information reported under Australian Equivalents to International Financial Reporting Standards ("AIFRS") are shown below:

#### (a) Basis of preparation of financial information

The financial information has been prepared in accordance with applicable Accounting Standards, Urgent Issues Group Consensus Views, other authoritative pronouncements of the Australian Accounting Standards Board. The financial information has also been prepared on a historical cost basis. The Income Statement nd Cash Flow Statement are for the period from the date of incorporation on 20 December 2006 to the date of the Prospectus.

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#### (b) **Principles of consolidation**

The proforma consolidated balance sheet comprises Avalon Minerals Ltd (the parent entity) and its controlled entity, Xmin Limited.

Where an entity either began or ceased to be controlled during the year, the results are included only from the date control commenced or up to the date control ceased.

The financial statements of subsidiaries are prepared for the same reporting period as the parent company, using consistent accounting policies. Adjustments are made to bring into line any dissimilar accounting policies that may exist.

The balances and effects of transactions, between controlled entities included in the consolidated financial statements have been eliminated.

#### (c) Cash and cash equivalents

Cash and short-term deposits in the balance sheet comprise cash at bank and in hand and short term deposits with an original maturity of three months or less.

For the purposes of the cash flow statement, cash and cash equivalents consist of cash and cash equivalents, net of outstanding bank overdrafts.

#### (d) **Revenue recognition**

Revenue is recognised to the extent that it is probable that the economic benefits will flow to the consolidated entity and revenue can be reliably measured. The following specific recognition criteria must also be met before revenue is recognised:

#### Interest income

Interest revenue is recognised upon control of the right to receive the interest payment.

#### (e) Goods and services tax

Revenues, expenses and assets are recognised net of the amount of goods and services tax (GST), except where the amount of GST incurred is not recoverable from the Australian Tax Office (ATO). In these circumstances the GST is recognised as part of the cost of acquisition of the asset or as part of the expense item as applicable.

Receivables and payables are stated with the amount of GST included.

The net amount of GST recoverable from, or payable to, the ATO is included as a current asset or liability in the statement of financial position.

Cash flows are included in the cash flow statement on a gross basis. The GST components of cash flows arising from investing and financing activities, which are recoverable from, or payable to, the ATO are classified as operating cash flows.

#### (f) Income tax

Deferred income tax is provided on all temporary differences at the balance sheet date between the tax bases of the assets and liabilities and their carrying amounts for financial reporting purposes.

Deferred income tax liabilities are recognised for all taxable temporary differences:

- except where the deferred income tax arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- in respect of taxable temporary differences associated with investments in subsidiaries, except where the timing of the reversal of the temporary differences will not reverse in the foreseeable future.

#### (f) Income tax(continued)

Deferred income tax assets are recognised for all deductible temporary differences, carry-forward of unused tax assets and unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carry-forward of unused tax assets and unused tax losses can be utilised:

- except where the deferred income tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- in respect of deductible temporary difference associated with investments in subsidiaries, deferred tax asset are only recognised to the extent that it is probably that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilised.

The carrying amount of deferred income tax assets is reviewed at each balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred income tax asset to be utilised.

Deferred income tax assets and liabilities are measured at the tax rates that are expected to apply to the year when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the balance sheet date.

Income taxes relating to items recognised directly in equity are recognised in equity and not in the income statement.

#### (g) **Recoverable amount**

At each reporting date, the consolidated entity assesses whether there is any indication that an asset may be impaired. Where an indicator or impairment exists, the consolidated entity makes a formal estimate of recoverable amount. Where the carrying amount of an asset exceeds its recoverable amount the asset is considered impaired and is written down to its recoverable amount.

Recoverable amount is the greater of fair value less costs to sell and value in use. It is determined for an individual asset, unless the asset's value in use cannot be estimated to be close to its fair value less costs to sell and it does not generate cash inflows that are largely independent of those from other assets or groups of assets, in which each case, the recoverable amount is determined for the cash-generating until to which the asset belongs.

In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessment of the time value of money and the risks specific to the asset.

#### (h) Exploration, Evaluation, Development and Restoration costs

#### Exploration and Evaluation Expenditure

Exploration and evaluation expenditure is stated at cost and is accumulated in respect of each identifiable area of interest.

Such costs are only carried forward in respect of areas of interest for which the rights of tenure are current and where:

- such costs are expected to be recouped through successful development and exploitation of the area of interest or, alternatively, by its sale; or
- activities in the area have not yet reached a stage which permits a reasonable assessment of the existence or otherwise of economically recoverable reserves and active and significant operations in, or in relation to the area are continuing.

#### (h) Exploration, Evaluation, Development and Restoration costs (continued)

A regular review is undertaken of each area of interest to determine the appropriateness of continuing to carry forward costs in relation to that area of interest. Where carried forward expenditure does not satisfy the policy stated above it is written off to the income statement in the period in which it is incurred.

Accumulated costs in relation to an abandoned area are written off to the income statement in the period in which the decision to abandon the area is made.

#### Rehabilitation, Restoration and Environmental Costs

Long-term environmental obligations are based on the consolidated entity's environmental management plans, in compliance with current environmental and regulatory requirements.

The costs include obligations relating to reclamation, waste site closure, plant closure, and other costs associated with the restoration of the site.

Full provision is made based on the net present value of the estimated cost of restoring the environmental disturbance that has occurred up to the balance sheet date. Increases due to additional environmental disturbances are capitalised and amortised over the remaining lives of the mines. These increases are accounted for on a net present value basis.

Annual increases in the provision relating to the change in the net present value of the provision and inflationary increases are accounted for in earnings.

The estimated costs of rehabilitation are reviewed annually and adjusted as appropriate for changes in legislation, technology or other circumstances. Cost estimates are not reduced by the potential proceeds from the sale of assets or from plant clean-up at closure.

#### Impairment

The carrying values of exploration, evaluation and development costs are reviewed for impairment when events or changes in circumstances indicate the carrying value may not be recoverable.

For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the cash-generating unit to which the asset belongs. If any such indication exists and where the carrying values exceed the estimated recoverable amount, the assets or cash-generating units are written down to their recoverable amount.

The recoverable amount of exploration, evaluation and development costs is the greater of fair value less costs to sell and value in use. In assessing the value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessment of the time value of money and the risks specific to the asset.

#### (i) Payables

Trade payables and other payables are carried at amortised cost and represent liabilities for goods and services provided to the consolidated entity prior to the end of the financial year that are unpaid and arise when the Group becomes obliged to make future payments in respect of the purchase of these goods and services.

Payables to related parties are carried at the principal amount. Interest, when charged by the lender, is recognised as an expense on an accrual basis.

#### (j) Share-based payment transactions

Share-based payment transactions are measured at fair value at date of grant. Options that vest immediately are expensed in the period that they vest.

#### (k) Issued capital

Issued and paid up capital is recognised at the fair value of the consideration received by the Company. Any transaction costs arising on the issue of ordinary shares are recognised directly in equity as a reduction of the proceeds received.

#### (l) Trade and other receivables

Trade receivables, which generally have 30-90 day terms, are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method, less an allowance for any uncollectible amounts.

Collectibility of trade receivables is reviewed on an ongoing basis. Debts that are known to be collectible are written off when identified. An allowance for doubtful debts is raised when there is objective evidence that the group will not be able to collect the debt.

#### (n) Purchased pre-exploration costs

Purchased pre-exploration expenditure relates to the acquisition of exploration licence applications currently in progress. This expenditure is capitalised until the exploration licences have been granted, when, if the application is successful, it is reclassified to deferred exploration and evaluation costs, or if unsuccessful the capitalised expenditure is charged to the income statement.

#### (m) Significant accounting estimates and assumptions

#### Share-based payment transactions

The group measures the cost of equity-settled transactions with employees by reference to the fair value of the equity instruments at the date at which they are granted. The fair value is determined by an external valuer using a Black-Scholes model, with the assumptions detailed in Note 8.5.8. The accounting estimates and assumptions relating to equity-settled share-based payments would have no impact on the carrying amounts of assets and liabilities within the next annual reporting period but may impact expenses and equity.

Proforma	
As at	As at
8/2/07	8/2/07

#### 8.5.2 Cash Assets

Cash	341,000	3,491,000
	341,000	3,491,000

#### 8.5.3 Reconciliation of Issued Capital

-	As at 8/2/07		Proforma as at 8/2/07	
	#	\$	#	\$
Issued for cash on incorporation Fair value of shares issued for acquisition of tenements	9,500,000	95,000	9,500,000	95,000
at 7.5c each	2,000,000	150,000	2,000,000	150,000
Seed Capital issued for cash at 7.5c each Fair value of shares issued for acquisition of Xmin	6,000,000	450,000	6,000,000	450,000
Limited at 20c each	-	-	5,000,000	1,000,000
Capital Raising at 20c each	-	-	17,500,000	3,500,000
Estimated cost of capital raising	-	-	-	(350,000)
	17,500,000	695,000	40,000,000	4,845,000

#### Terms and conditions of contributed equity:

#### Ordinary Shares

Ordinary shares have the right to receive dividends as declared and, in the event of winding up the Company, to participate in the proceeds from the sale of all surplus assets in proportion to the number of and amounts paid up on shares held.

Ordinary shares entitle their holder to one vote, either in person or by proxy, at a meeting of the Company.

#### 8.5.4 Expenditure Commitments

In order to maintain an interest in the exploration tenements in which the Company is involved, the Company is committed to meet the conditions under which the tenements were granted. The timing and amount of exploration expenditure and obligations of the Company are subject to minimum expenditure requirements required of the relevant regulatory bodies and may vary significantly from the forecast based upon the results of the work performed which will determine the prospectivity of the relevant area of interest. The obligations are not provided for in the accounts. The current commitment on granted tenements is \$149,000 per annum.

#### 8.5.5 Contingent Liabilities

There are no contingent liabilities to report at 8 February 2007 or at the date of this Prospectus.

#### 8.5.6 Basis on which the Proforma Consolidated Balance Sheet is prepared

The proforma consolidated balance sheet of the consolidated entity following the Capital Raising, has been prepared for illustrative purposes only to show the effect of the transactions set out below.

The proforma, because of its nature, may not give a true picture of the financial position of the consolidated entity. It is based on the historical financial information as contained in this Prospectus and adjusted for the transactions as described below.

		BALANCE SHEET		
	Note	COMPANY As at 8/2/07	Adjustments	PROFORMA CONSOLIDATED As at 8/2/07
Current Assets				
Cash and cash equivalents	(a)	341,000	3,150,000	3,491,000
Trade and other receivables		150,000	(150,000)	-
Total Current Assets	-	491,000	3,000,000	3,491,000
Non-Current Assets	-			
Deferred expenditure		65,000	(65,000)	-
Purchased pre-exploration		-	1,250,000	1,250,000
Deferred exploration and evaluation costs		204,000	-	204,000
<b>Total Non-Current Assets</b>	-	269,000	1,185,000	1,454,000
TOTAL ASSETS		760,000	4,185,000	4,945,000
Current Liabilities				
Trade and other payables		65,000	35,000	100,000
Total Current Liabilities	-	65,000	35,000	100,000
TOTAL LIABILITIES	-	65,000	35,000	100,000
NET ASSETS	-	695,000	4,150,000	4,845,000
Equity				
Issued capital	<b>(b)</b>	695,000	4,150,000	4,845,000
Option premium reserve		49,879	-	49,879
Accumulated losses	_	(49,879)	-	(49,879)
TOTAL EQUITY		695,000	4,150,000	4,845,000

#### 8.5.6 Basis on which the Proforma Consolidated Balance Sheet is prepared (continued)

The Proforma consolidated balance sheet has been prepared as if the following transactions had taken place as at 8 February 2007:

- the issue of 17,500,000 shares at 20 cents per share pursuant to this Prospectus to raise \$3,500,000;
- the issue of 5,000,000 shares at an issue price of 20 cents per share to acquire the net assets of Xmin Limited which includes the fair value of the purchased pre-exploration of \$1,250,000 and elimination of intercompany trade and other receivables of \$150,000 and assumption of \$100,000 in liabilities; and
- the payment and recognition directly in equity of costs incurred by the Company in relation to the Capital Raising estimated to be \$350,000 and the capitalisation of costs incurred to date of \$65,000 recognised in deferred assets.

Save for the matters described above, no adjustment has been made for events or transactions that have taken place since 8 February 2007.

#### (a) Reconciliation of Adjustments to Cash

	\$
Balance as at 8 February 2007	341,000
Adjustments:	
Proceeds from the issue of 17.5 million ordinary shares at 20 cents	3,500,000
Expected cash cost of issue	(350,000)
Proforma cash balance as at 8 February 2007	3,491,000
(b) Reconciliation of Issued Capital	
	\$
Balance as at 8 February 2007	695,000
Adjustments:	
Issue of 17.5 million ordinary shares at 20 cents	3,500,000
Issue of 5 million ordinary shares at an issue price of 20 cents per share to settle the acquisition	
of Xmin Limited	1,000,000
Expected cost of issue	(350,000)
Proforma Issued Capital as at 8 February 2007	4,845,000

#### 8.5.7 Subsequent Events

On 7 February 2007, the shareholders of Avalon Minerals Ltd approved the grant of a total of 11,000,000 Options to the Directors. These Options were allotted on 7 February 2007 and the financial effect of the grant of the Options of \$49,879 has been charged to the income statement.

Other than as stated above, there are no events subsequent to 8 February 2007 which are sufficiently material to warrant disclosure.

#### 8.5.7 Share-based payments

The Company currently has 11,000,000 Options on issue as follows:

- 5,400,000 Options Vesting immediately and exercisable at 20 cents each on or before 31 January 2010; and
- 5,600,000 Options- Vesting immediately and exercisable at 40 cents each on or before 31 January 2009 if the share price exceeds 40 cents.

The Options were valued using the Black & Scholes pricing model and based upon the following assumptions:

- (a) a price per Share of 7.5 cents being the issue price of the Seed Capital;
- (b) an annual volatility of stock factor of 0.5%;
- (c) a risk free interest rate of 5.75%; and
- (d) the valuation date for the Options is 31 January 2007.

# 9. Additional Information

# 9.1 Directors' Interests

Except as disclosed in this Prospectus, no Director or proposed Director holds, or during the last two years has held, any interest in:

- the formation or promotion of the Company; or
- property acquired or proposed to be acquired by the Company in connection with its formation or in connection with the Offer; or
- the Offer;

and no amounts of any kind (whether in cash, Shares or otherwise) have been paid or agreed to be paid to any Director or proposed Director to induce him to become, or to qualify as, a Director, or otherwise for services rendered by him in connection with the formation or promotion of the Company or the Offer except as detailed below.

# (a) Shareholding Qualifications

The Directors are not required to hold any Shares in the Company under the Constitution of the Company.

# (b) Directors Interests in the Company

At the date of this Prospectus, the Directors have relevant interests in the following securities of the Company:

Director	Number of Shares	Number of Options
David McSweeney	6,000,000	10,000,000
Gary Steinepreis	1,300,000	500,000
Stephen Stone	500,000	500,000

# (c) Non-executive Directors' Remuneration

The Constitution provides that non-executive Directors may collectively be paid as remuneration for their services a fixed sum not exceeding the aggregate maximum sum per annum from time to time determined by the Company in general meeting of Shareholders. The aggregate remuneration has been set at an amount of \$300,000 per annum.

Following the Quotation of the Shares, the non executive Directors or entities associated with the non executive Directors will be paid an annual remuneration of \$35,000 plus GST, if applicable. There are no management agreements or contracts with the non executive directors.

# (d) Directors' expenses

Directors are also entitled to be paid reasonable travelling, accommodation and other expenses incurred as a consequence of their attendance at meetings of Directors and otherwise in the execution of their duties as Directors.

# (e) Executive Directors' service agreement

The remuneration of executive Directors will be fixed by the Directors and may be paid by way of fixed salary. Details of David McSweeney's executive services contract are set out in Section 9.4.

# (f) Prior years Directors ' remuneration or fees

In the last two years, there has been no remuneration or consulting fees paid to the current Directors, companies associated with the Directors or their associates in their capacity as Directors, consultants or advisers.

# (g) Other interests

Ascent Capital Holdings Pty Ltd, a company of which Gary Steinepreis is a director and has a beneficial interest of 50%, will charge a fee of \$0,000 for company secretarial and corporate advisory work performed in relation to the successful Quotation of the Shares.

# 9.2 Interests of Experts and Advisers

Except as disclosed in this Prospectus, no expert, promoter or any other person named in this Prospectus as performing a function in a professional advisory or other capacity in connection with the preparation or distribution of the Prospectus, nor any firm in which any of those persons is or was a partner nor any company in which any of those persons is or was associated with, has now, or has had, in the 2 year period ending on the date of this Prospectus, any interest in:

- the formation or promotion of the Company;
- property acquired or proposed to be acquired by the Company in connection with its formation or promotion or the Offer; or
- the Offer.

Except as disclosed in this Prospectus, no amounts of any kind (whether in cash, Shares, Options or otherwise) have been paid or agreed to be paid to any expert, promoter or any other person named in this Prospectus as performing a function in a professional advisory or other capacity in connection with the preparation or distribution of the Prospectus, or to any firm in which any of those persons is or was a partner or to any company in which any of those persons is or was associated with, for services rendered by that person in connection with the formation or promotion of the Company or the Offer.

Steinepreis Paganin has prepared the Solicitor's Report included in Section 6 of this Prospectus. In respect of this work the Company will pay and its subsidiary have paid or will pay approximately \$30,000 to Steinepreis Paganin. A company controlled by some of the partners of Steinepreis Paganin holds 100,000 Shares in the Company.

Walter Witt has prepared the Independent Geologist's Report included in Section 5 of this Prospectus. In respect of this work the Company will pay approximately \$18,000 to \$20,000.

Ernst & Young has acted as the Independent Accountant to the Offer and in that capacity has prepared the Independent Accountant's Report included in Section 7 of this Prospectus. In respect of this work the Company will pay approximately \$10,000 to \$15,000 to Ernst & Young. Ernst & Young has also agreed to act as auditors to the Company and will be paid additional fees for rendering these and other accounting services.

The amounts disclosed above are inclusive of any amount of goods and services tax payable by the Company in respect of those amounts.

# 9.3 Consents

Each of the parties referred to in this Section 9.3:

- (a) has not authorised or caused the issue of this Prospectus;
- (b) does not make, or purport to make, any statement in this Prospectus on or which a statement made in this Prospectus is based other than as specified in this Section 9.3;
- (c) to the maximum extent permitted by law, expressly disclaims and takes no responsibility for any part of this Prospectus other than a reference to its name and a statement included in the Prospectus with the consent of that party as specified in this Section 9.3; and
- (d) has given and has not, before the lodgement of this Prospectus with ASIC, withdrawn its consent to be named in the Prospectus in the form and context in which it is named.
  - Steinepreis Paganin has given its written consent to being named as Solicitor in respect of preparing the Solicitor's Report and to the inclusion of the Solicitor's Report in this Prospectus and any electronic version of this Prospectus in the form and context in which the report is included and all statements referring to that report in the form and context in which they appear. Steinepreis Paganin has not withdrawn its consent prior to lodgement of this Prospectus with ASIC.
  - Walter Witt has given his written consent to being named as the Independent Geologist to the Company and to the inclusion of the Independent Geologist's Report in this Prospectus and any electronic version of this Prospectus in the form and context in which the report is included and all statements referring to that report in the form and context in which they appear. Walter Witt has not withdrawn his consent prior to the lodgement of this Prospectus with ASIC.
  - Ernst & Young has given its written consent to be named as Independent Accountant and Auditor to the Company and to the inclusion of the Independent Accountant's Report in this Prospectus and any electronic version of this Prospectus in the form and context in which the report is included and all statements referring to that report in the form and context in which they appear. Ernst & Young has not withdrawn its consent prior to the lodgement of this Prospectus with ASIC.
  - Computershare Investor Services Pty Limited has given its written consent to being named as the share registrar of the Company in this Prospectus and any electronic version of this Prospectus and has not withdrawn its consent prior to the lodgement of this Prospectus with ASIC.

# 9.4 Material Contracts

A summary of the material contracts relating to the acquisition of the exploration licences and exploration licence applications are set out in the Solicitor's Report contained in Section 6. The only other material contracts to be disclosed for the purposes of this Prospectus is the executive services agreement with Mr McSweeney and the loan facility deed with Xmin which are set out below:

# **Executive Services Agreement**

David McSweeney has agreed to act as an Executive Chairman of the Company until at least 31 January 2010. Under his contract Mr McSweeney's remuneration has been structured so that he receives a base amount of \$300,000 per annum (exclusive of superannuation and other entitlements outlined in his contract).Mr McSweeney's base salary will be reviewed annually in accordance with the Company's remuneration policy. The contract may be terminated by the Company without reason by giving 3 month's written notice and making a payment of 9 months salary after the expiry of the 3 months written notice period. Alternatively the Company can elect to pay 12 months salary in lieu of the 3 months written notice period. Mr McSweeney may terminate the contract by giving 3 months notice to the Company.

In addition to the above base salary, Mr McSweeney has been granted 5,000,000 Options exercisable at 20 cents expiring on 10 February 2010 and 5,000,000 Options exercisable at 40 cents expiring on 10 February 2009. The terms of these Options are described in Section 9.6.

# Loan Facility Deed

On 31 January 2007 Avalon entered into Loan Facility Deed with Xmin under which Avalon agreed to advance an interest-free \$250,000 loan. The purpose of the loan was to assist Xmin repay its existing loan from Terra Firma Investments Pty Ltd. At present Xmin has drawn down \$150,000 on the loan and the remainder is payable by Avalon within 5 Business Days following admission to the Official List. The loan must be repaid by Xmin on demand from Avalon following its admission to the Official List and in any event must be repaid no later than 9 years and 6 months from the date of the original advance.

# 9.5 Rights and Liabilities attaching to Shares

Full details of the rights and liabilities attaching to the Shares are:

- detailed in the Constitution, a copy of which can be inspected, free of charge, at the registered office of the Company during normal business hours; and
- in certain circumstances, regulated by the Corporations Act, ASX Listing Rules and the general law.

The following is a summary of the more significant rights and liabilities attaching to Shares. This summary is not exhaustive and does not constitute a definitive statement of the rights and liabilities of Shareholders. To obtain such a statement, persons should seek independent legal advice.

# (a) Voting

Subject to any rights or restrictions for the time being attached to any class or classes of Shares, at a general meeting of members every member present in person or by proxy, attorney or representative has one vote on a show of hands and one vote per Share on a poll. In the case of a vote on a poll, the person who holds a Share which is not fully paid shall be entitled to a fraction of a vote equal to that proportion of a vote that the amount paid on the relevant Share bears to the total issue price of the Share.

# (b) Dividends

Subject to the rights of holders of Shares issued with any special rights (at present there are none), the profits of the Company which the Directors may from time to time determine to distribute by way of dividend are divisible among the holders of Shares equally, and among the holders of partly paid shares in the Company in proportion to the amounts paid (not credited as paid) on the Shares in respect of which the dividend is paid. All Shares currently on issue and the Shares to be issued under this Prospectus are fully paid Shares.

# (c) Future Issues

Subject to the Constitution, the Corporations Act and ASX Listing Rules, the Directors may allot, issue, grant options over, or otherwise deal with the unissued shares in the Company at the times and on the terms and conditions that the Directors think proper and a share may be issued with preferential, deferred or special rights, privileges or conditions or restrictions including, but not limited to, restrictions in regard to dividends, voting or return of capital as the Directors from time to time determine.

# (d) Transfer of Shares

Subject to the Corporations Act, ASX Listing Rules and ASTC Settlement Rules, Shareholders may transfer all or any Shares by a written transfer form in the usual form approved by the Directors. In certain

circumstances, the Directors may refuse to register a transfer of Shares, including where the transfer is not in a registrable form or where refusal is permitted or required by the ASX Listing Rules.

# (e) Meetings and Notices

Each Shareholder is entitled to receive notice of, and to attend, general meetings for the Company and to receive all notices, accounts and other documents required to be sent to shareholders under the Constitution, the Corporations Act or ASX Listing Rules. Shareholders may requisition meetings in accordance with the Corporations Act and the Constitution.

# (f) Winding Up

If the Company is wound up, the liquidator may, with the sanction of a special resolution of the Company, divide among the Members in kind the whole or any part of the property of the Company and may for that purpose set such value as the liquidator considers fair on any property to be so divided and may determine how the division is to be carried out as between the Members or different classes of Members. The liquidator may, with the sanction of a special resolution of the Company, vest the whole or any part of any such property in trustees on such trusts for the benefit of the contributories as the liquidator thinks fit, but so that no Member is compelled to accept any Shares or other securities in respect of which there is any liability.

Where an order is made for the winding up of the Company or it is resolved by special resolution to wind up the Company, then on a distribution of assets to members, shares classified by the ASX as restricted securities at the time of the commencement of the winding up shall rank in priority after all other Shares. Subject to the rights of Members (if any) entitled to Shares with special rights in a winding-up, all monies and property that are to be distributed among Members on a winding-up, shall be so distributed in proportion to the Shares held by them respectively, irrespective of the amount paid-up or credited as paid up on the Shares.

# (g) Shareholder Liability

As the Shares under the Prospectus are fully paid shares, they are not subject to any calls for money by the Directors and will therefore not become liable for forfeiture.

# (h) Alteration to the Constitution

The Constitution can only be amended by a special resolution passed by at least three quarters of Members present and voting at the general meeting. At least 28 days written notice specifying the intention to propose the resolution as a special resolution must be given.

# (i) ASX Listing Rules

If the Company is admitted to the Official List, then despite anything in the Constitution, if ASX Listing Rules prohibit an act being done, the act must not be done. Nothing in the Constitution prevents an act being done that ASX Listing Rules require to be done. If ASX Listing Rules require an act to be done or not to be done, authority is given for that act to be done or not to be done (as the case may be). If ASX Listing Rules require the Constitution to contain a provision or not to contain a provision the Constitution is deemed to contain that provision or not to contain that provision of the Constitution is deemed not to contain that provision to the extent of the inconsistency.

# 9.6 Terms and conditions of the Options issued to Directors

The Company currently has 11,000,000 Options on issue to Directors as set out in Section 9.1 as follows:

- 5,400,000 Options Vesting immediately and exercisable at 20 cents each on or before 31 January 2010; and
- 5,600,000 Options- Vesting immediately and exercisable at 40 cents each on or before 31 January 2009 if the share price exceeds 40 cents.

The terms and conditions of these Options are set out below.

- (a) Each Option entitles the holder, when exercised to one Share
- (b) Subject to paragraph (c) the Options are exercisable at any time prior to 5.00pm (WST) on 31 January 2009 and 31 January 2010 (as applicable)(**Expiry Date**);
- (c) If the Option holder (or the Director associated with the Option holder) ceases to hold office, to be employed and/or act as a consultant, as the case may be, with the Company for any reason whatsoever (except where such cessation occurs as a result of a change in control of the Company, with a change in control being where a Shareholder or group of associated shareholders become entitled to sufficient Shares in the Company to give it or them the ability to replace all or a majority of the Board of the Company), the relevant outstanding Options of that Option holder (or the Director associated with that Option holder) shall be forfeited and all rights and/or benefits in relation to those Options shall also be forfeited after a period of 3 months from the date of cessation of holding office, employment and/or consulting, as the case may be, or as otherwise determined by the other Directors;
- (d) The Options granted to each Director are exercisable at 20 cents or 40 cents (as appropriate) (**Exercise Price**);
- (e) Subject to the Corporations Act, ASX Listing Rules and the Constitution, the Options are transferable;
- (f) The Company will not apply for quotation of the Options on ASX; all Shares issued upon exercise of the Options will rank pari passu in all respects with the Company's then issued Shares. The Company will apply for Official Quotation of all Shares issued upon exercise of the Options;
- (h) There are no participating rights or entitlements inherent in the Options and the Option holder will not be entitled to participate in new issues of capital offered to Shareholders during the currency of the Options. However, the Company will ensure that for the purposes of the proposed issue notice of the new issue will be given to the Option holder at least seven (7) business days before the record date. This will give the Option holder the opportunity to exercise the Options prior to the date for determining entitlements to participate in any such issue;
- (i) If at any time the Company makes a bonus issue of Shares then the number of Shares which must be issued on the exercise of an Option will be increased by the number of Shares which the Option holder would have received if the Option holder had exercised the Option before the record date for the bonus issue and the **Exercise Price** will remain unchanged;
- (j) If the Company makes an issue of Shares pro rata to existing Shareholders the Exercise Price of an Option will be reduced in accordance with the formula set out in ASX Listing Rule 6.22.2; and
- (k) If at any time the issued capital of the Company is reconstructed all rights of an Option holder are to be varied in a manner consistent with the Corporations Act and the ASX Listing Rules.

# 9.7 Terms and Conditions of Employee Incentive Option Plan

The Company has established an employee incentive option plan (**EIOP**) which authorises the Directors to offer incentive options to "Eligible Participants". The full terms of the EIOP may be inspected at the Registered Office of the Company during normal business hours.

"Eligible Participants" as defined in the EIOP means full or part time employees, directors and consultants of the Company or an associated body corporate.

The objective of the EIOP is to assist in the recruitment, reward, retention and motivation of employees, consultants and Directors of the Company and its subsidiaries.

Each option issued under the EIOP (Employee Option) will be issued free of charge.

The exercise price for Employee Options granted under the EIOP will be the price fixed by the Board prior to the grant of the Employee Option and shall not be less than any minimum price specified in the ASX Listing Rules.

The Employee Options granted under the EIOP may be subject to such other restrictions on exercise as may be fixed by the Directors prior to grant of the Employee Options including, without limitation, length of service by the employee and threshold prices at which Shares are traded on ASX. Any restrictions so imposed by the Directors must be set out on the Employee Option certificate.

The Employee Options granted under the EIOP do not give any right to participate in dividends or rights issues until Shares are allotted pursuant to the exercise of the relevant Employee Option. The number of Shares issued on the exercise of Employee Options will be adjusted for bonus issues made prior to the exercise of the Employee Options.

The Employee Options granted under the EIOP have a term specified on the face of each certificate. Employee Options are not transferable.

# 9.8 Directors' Deeds of Indemnity, Insurance and Access

The Company has entered into deeds of indemnity, insurance and access with each of the Directors.

The Company has undertaken, subject to the restrictions in the Corporations Act, to indemnify each Director against certain liabilities incurred by the Directors while acting as a Director of the Company, to insure the Directors against certain risks to which they are exposed as a Director of the Company and to grant the Director a right of access to certain records of the Company for a period of up to 7 years after the Director ceases to be a Director

The Company proposes to enter into a similar Deed with any subsequent Directors appointed.

# 9.9 Litigation

The Directors are not aware of any litigation pending or threatened which may significantly affect the Company.

# 9.10 Company Tax Status and Financial Year

The Directors expect the Company will be taxed in Australia as a public company.

The financial year of the Company ends on 30 June annually.

# 9.11 Company Registration

The Company was registered on 20 December 2006.

# 9.12 Expenses

The expenses connected with the Offer including fees of the Consulting Geologist, Independent Accountant, Solicitor, printing, listing and lodgement fees, postage, fees to holders of a Financial Services Licence and other miscellaneous expenses will be approximately \$350,000 and are payable by the Company.

# 9.13 Offer to issue Shares to Greg Down

In accordance with the Share Purchase Agreement, the Company makes an offer to Greg Down of 5,000,000 Shares. As disclosed in the Share Purchase Agreement (refer to a summary of the agreement in Solicitor's Report) the Shares are being offered to Mr Down as consideration for Mr Down's 10 ordinary shares in Xmin which constitute the whole of the issued capital of Xmin. Only Mr Down may accept the offer for 5,000,000 Shares by completing the Down Application Form attached to or accompanying this Prospectus and delivering it to the Company's Registered Office.

# **Directors Responsibility Statement and Consent**

The Directors state that they have made all reasonable enquiries and on that basis have reasonable grounds to believe that any statements made by the Directors in this Prospectus are not misleading or deceptive. In relation to any statements made in this Prospectus by persons other than Directors, the Directors have made reasonable enquiries and on that basis have reasonable grounds to believe that the persons making the statement or statements are competent to make such statements. Those persons have given their consent to the statements being included in this Prospectus in the form and context in which they appear and have not withdrawn that consent before lodgement of this Prospectus with ASIC.

This Prospectus is issued by Avalon Minerals Ltd. The issue of this Prospectus has been authorised by the Directors and this Prospectus has been signed by a Director on behalf of the Directors. Each Director has consented to the lodgement of this Prospectus with ASIC and has not withdrawn that consent.

Dated: 9 February 2007

Signed for and on behalf of Avalon Minerals Ltd

David McSweeney Executive Chairman

# Glossary

\$	means Australian dollars. All amounts in this Prospectus are in Australian dollars unless otherwise stated.
Applicant	means a person who submits an Application Form under this Prospectus.
Application Form	means the application form accompanying this Prospectus.
Application Monies	means the amount in dollars and cents payable for Shares at 20 cents each under this Prospectus.
ASIC	means the Australian Securities and Investments Commission.
ASTC	means the ASX Settlement and Transfer Corporation Pty Limited (ABN 49 008 504 532).
ASTC Settlement Rules	means the operating rules of the settlement facility provided by the ASTC.
ASX	means ASX Limited.
ASX Listing Rules	means the official listing rules of ASX and any other rules of ASX which apply while the Company is a listed company, each as amended or replaced from time to time except to the extent of any express written waiver by ASX.
Auditor	means Ernst & Young.
Avalon Minerals or the Company	means Avalon Minerals Ltd ABN 68 123 184 412.
Board	means the board of Directors as constituted from time to time.
Business Day	means Monday to Friday inclusive, except New Year's Day, Good Friday, Easter Monday, Christmas Day, Boxing Day, and any other day that ASX declares is not a business day.
CHESS	means Clearing House Electronic Subregister System
Closing Date	means the last date of receipt of completed Application Forms for the Offer which is 5:00 pm WST on 12 March 2007 or such other date and time as the Directors in their absolute discretion, may determine.
Constitution	means the constitution of the Company.
Consultant Geologist	means Walter Witt.
<b>Corporations Act</b>	means the Corporations Act 2001 (C'th).
Directors	means the Directors of the Company.
Down Application Form	means the application form attached to or accompanying this Prospectus which must be completed by Greg Down.
Exposure Period	means the period of 7 days after the date of lodgement of this Prospectus, which period may be extended by ASIC by not more than 7 days pursuant to section 727(3) of the Corporations Act.
Existing Shares	means the Shares on issue on the date of this Prospectus.

HIN	means Holder Identification Number
Independent Accountant	means Ernst & Young.
Independent Accountant's Report	means the report on the historical and proforma financial information prepared by the Independent Accountant contained in section 7 of this Prospectus
Independent Geologist's Report	means the report prepared by the Consulting Geologist contained in Section 5 of this Prospectus.
Member	means a person whose name is entered on the register of members of the Company
Minimum Subscription	means as defined in Section 2.5.
Offer	means the invitation to apply for Shares under this Prospectus.
Offer Price	means 20 cents per Share
Official List	means the official list of the ASX.
Opening Date	means the first date for receipt of completed Application Forms for the Offer which is 5:00 pm WST on 16 February 2007 or such other date and time as the Directors in their absolute discretion, may determine.
Option	means an option to acquire one Share on the terms and conditions as set out in Section 9.6 of this Prospectus.
Prospectus	means this prospectus dated 9 February 2007.
Quotatio n	has the same meaning as in the ASX Listing Rules.
<b>Registered Office</b>	means Level 1, 33 Ord Street, West Perth, West Australia
Shares	means a fully paid ordinary share in the capital of the Company.
Shareholder	means the holder of a Share.
Share Registry	means Computershare Investor Services Pty Limited, the share registry of the Company.
Share Sale Agreement	means the agreement between Greg Down and the Company to acquire Xmin and summarised in the Solicitor's Report.
Solicitor	means Steinepreis Paganin
Solicitor's Report	means the report prepared by the Solicitor contained in Section 6 of this Prospectus.
SRN	means a Shareholder Reference Number.
WST	means Western Australian Standard Time.
Xmin	means Xmin Limited ACN 115 854 807.