

27 April 2012

ASX Limited  
Company Announcements  
Level 4, 20 Bridge Street  
SYDNEY NSW 2000

Dear Sir/Madam

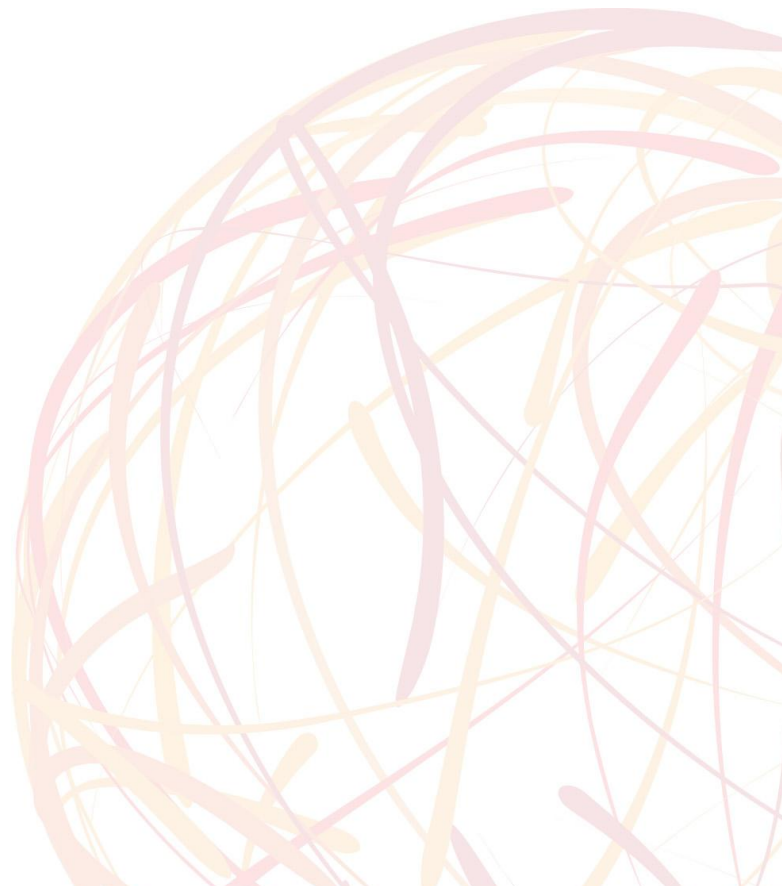
**RE: QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDING 31 MARCH 2012**

Please find attached above referenced quarterly activity report document, including the summary of operations for the March 2012 Quarter.

Yours faithfully  
**SUN RESOURCES NL**



Matthew Battrick  
**MANAGING DIRECTOR**



# **QUARTERLY REPORT FOR THE PERIOD**

## **ENDING 31 MARCH 2012**

### **HIGHLIGHTS**

#### **Delta Oil Project, USA**

- Sun Resources NL (“Sun” or “Sun Resources”) is acquiring the Delta Oil Project, consisting of up to 10,000 acres of oil and gas leases in the emerging ‘Eaglebine’ oil play within the shallow oil zone of the Eagle Ford Shale trend.
- During the quarter Sun announced that it had secured its fifth and sixth tranches of acreage in the Eaglebine oil play, along trend of the Eagle Ford Shale Fairway, with an outstanding lease holding of 7,605 net acres in the Delta Oil Project as of 21 March 2012.
- Subsequent to the end of the Quarter, on 20 April 2012, Sun announced it was undertaking due diligence on a seventh tranche of acreage that will take Sun’s holding beyond 8,000 acres, once completed.
- Independent petroleum engineering and geological consulting firm Ralph E. Davis estimates unrisks 10 million barrels of net Prospective Oil Resources in one sand unit of the Delta Oil Project and potential upside of a further unrisks 10 to 20 million barrels of Prospective Oil Resources in other sand units in the 450 feet thick prospective sequence.
- The Delta Oil Project also includes 5 secondary oil and gas target horizons, including the Sub-Clarksville and Buda-Georgetown horizons that lie adjacent to the Woodbine/Eaglebine section, where oil and gas discoveries have already been made in close proximity to the Delta Oil Project.
- Recent industry research confirms a significant upside case for Sun’s Delta Oil Project.
- Strong oil production rates that are being reported in nearby Woodbine/Eaglebine horizontal production wells validate Sun’s entry into the Delta Oil Project, and demonstrate the prospectivity of the Delta Oil Project.
- Strong industry interest in nearby Woodbine/Eaglebine acreage confirms then potential of Sun’s significant acreage position.
- Discussions with potential joint venture partners ongoing.

#### **CORPORATE**

- Mr Damian Kestel joined the Board as a non-executive director, effective 1 February 2012 and Mr John Kenny joined the Board as a non-executive director, effective 1 March 2012.

## 1. UNITED STATES OF AMERICA

### 1.1 OIL AND GAS EXPLORATION

#### Delta Oil Project, Onshore, East Texas (Sun Resources – 100%WI)

##### *Update*

Sun Resources NL (ASX:SUR) has increased its holding in the Delta Oil Project during the Quarter from 6,053 acres to 7,605 acres. As of 20 April 2012 this was expected to further increase beyond 8,000 acres, after the completion of due diligence on a seventh tranche of leases. Sun continues to work with the vendor of the Delta Oil Project to progress towards the acquisition target of 10,000 acres.

Sun Resources is aware of significant demand for land leasing and competitive sale activity within Leon County, as shown by the number of large independent drilling operators that now have substantial lease positions around the Sun acreage (Figure 1). There are unconfirmed reports of lease sales targeting Woodbine/Eaglebine objectives for up to US\$2,500 per acre near Sun's Delta Oil Project. It has been reported that the following companies are now also active in Leon County: Gatar, Halcón, Petromax, Encana and Chesapeake.

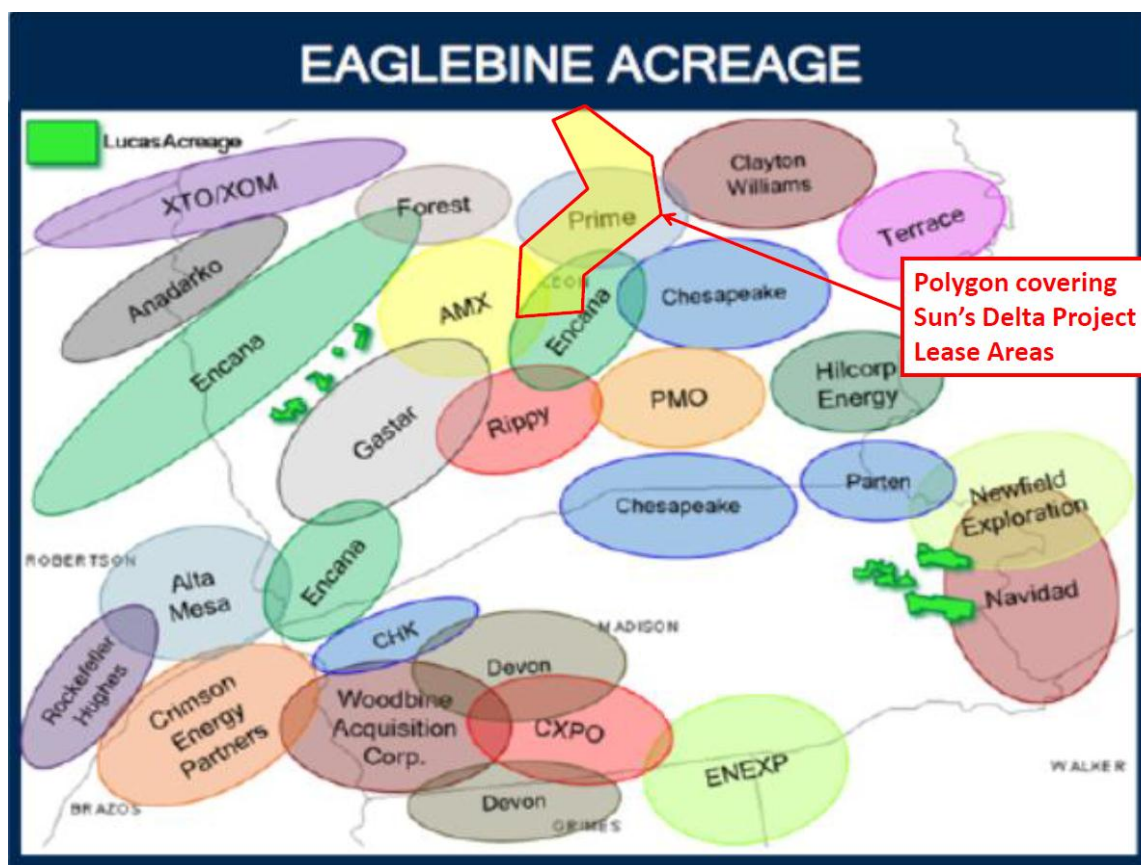
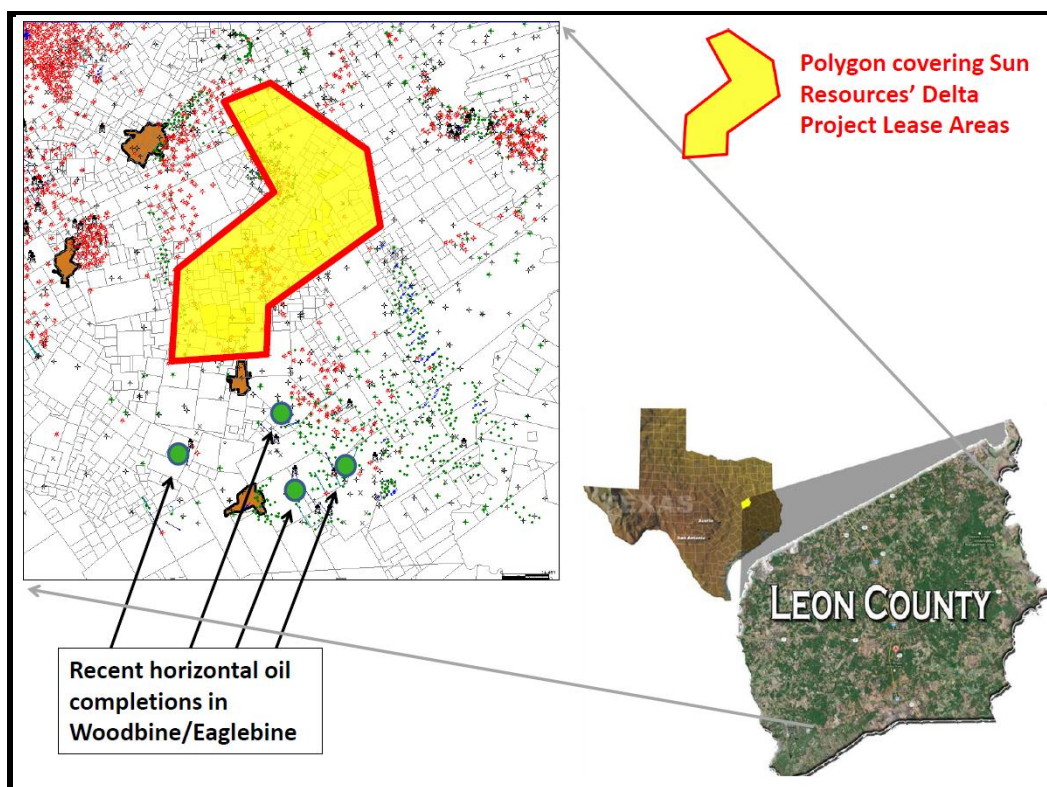


Figure 1: Eaglebine operators within Leon and Madison counties (Source: Lucas Energy Inc)

Sun Resources also reports that during discussions with other operators and drilling contractors, most operators in Leon and Madison Counties are having greatest success with horizontal well bore lengths of 6,000 -7,000 feet (1,830-2,130 metres) delivering initial production rates of 800bopd and more after multi-stage fracture stimulations, or "fracs" and draining lease areas of at least 120 acres (about 50 hectares). These wells are being drilled, fraced and brought into production for an investment of about US\$5-6 million (figure 2). Operators are also reporting that oil production decline rates are more modest than previously forecast, adding to the strong commercial potential in the Eaglebine/Woodbine play.





**Figure 2:** Location map of polygon covering the Delta Project lease position in relation to recent successful horizontal Woodbine/Eaglebine oil wells

These nearby drilling results indicate that pay-back can be achieved within 12 months, delivering strong rates of return and net present values comparable with the conclusions of the independent resource and economics assessment commissioned by Sun Resources, through Ralph E Davis. The Ralph E Davis report concluded that wells within this play could deliver an NPV10 of \$10.333 million per well (see detail below under the heading: “Background”).

Recent industry research has listed the following characteristics of the Woodbine/Eaglebine oil play (Figure 3).

- **Organic-rich, laminated sand above Buda**
- **~40% silica and clastics = natural fractures**
- **Geologically equivalent to EFS in South Texas**
- **Modern drilling/completion skills critical**
- **Multiple, high quality sand lenses**
- **Premium pricing for oil, NGL’s and gas**
- **10%+ porosity, 4-5% TOC**
- **Current IP’s 3-4 times higher than previous estimates**
- **Well cost = \$5.5-6.5 million**
- **Spud to Production = 60-90 days**
- **Well Spacing = 160 acres (significantly, half that suggested in the Ralph E. Davis Report)**
- **EUR = 467 mboe per well per zone**
- **Potential from 5,500-11,500 feet depth**
- **Responds to multi-stage fracs (10-20 stages)**
- **High porosity = high storage capacity sands**
- **Downdip permeability traps hydrocarbons**

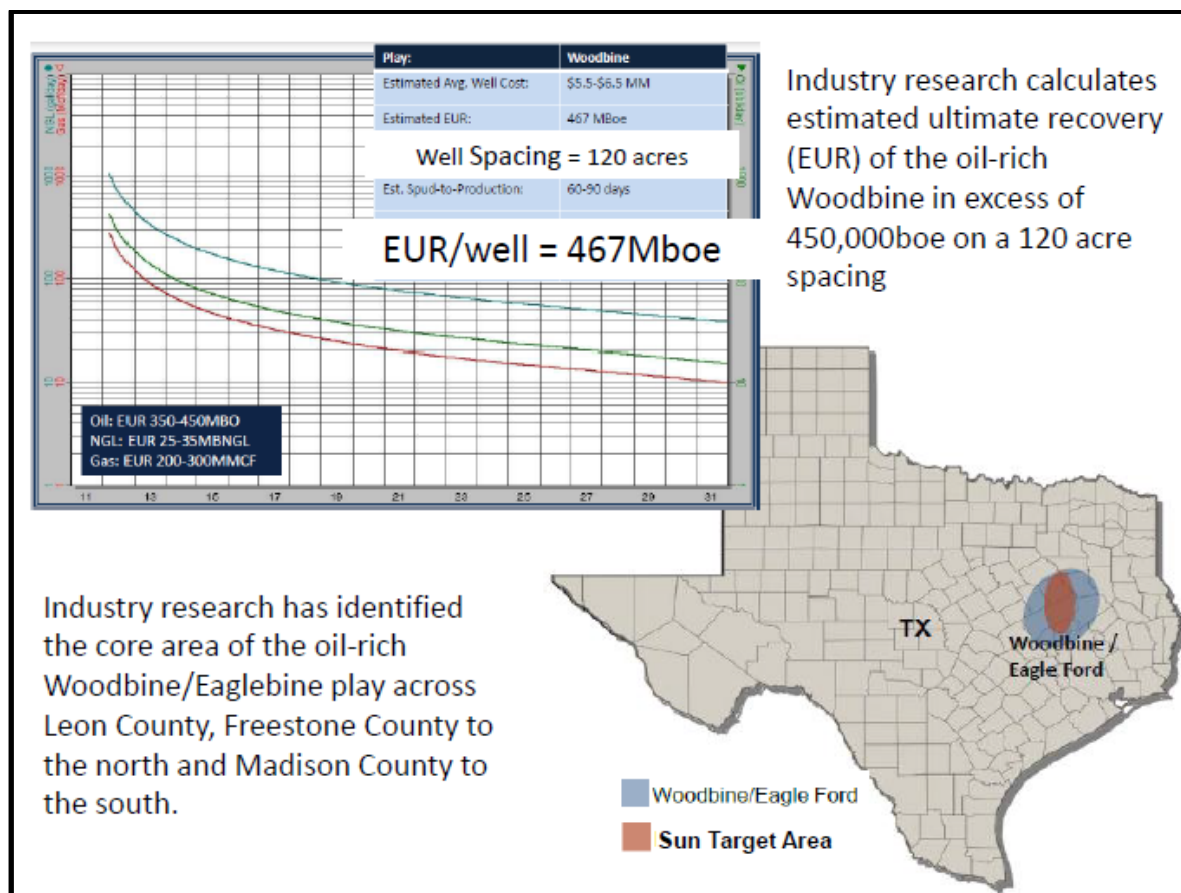


Figure 3: Eaglebine/Woodbine target map area and estimated ultimate recovery chart from recent industry research

## Background

The Delta Oil Project leases are located in the rapidly expanding new 'Eaglebine' play within the overall Eagle Ford Shale trend in Houston, Madison, Leon and Robertson Counties, Texas. In this new resource play, horizontal fraced wells have obtained significant oil production from brittle, sandy units (**Woodbine Sands**) near the base of the Eagle Ford Shale at relatively shallow depths.

On 26 August 2011, Sun Resources announced that it had entered into a binding term sheet with a Houston based private oil and gas company to acquire up to 10,000 net acres of oil and gas leases<sup>1</sup> (**Delta Oil Project**), all located within the oil zone of the Eagle Ford Shale trend in Texas, USA. Sun will acquire a 100% working interest in all of the leases, each with a minimum 75% net revenue interest, a three year lease term, and in most instances, also have a 2 year option to extend the lease term. Sun will work with the Vendor to acquire up to 10,000 acres; however less than 10,000 acres may ultimately be acquired. The numbers throughout this quarterly report are based on the acquisition of 10,000 acres.

Recent horizontal wells within 35 miles of the Delta Oil Project have obtained initial flow rates of 900 to 1,200 barrels of oil per day from multi-staged fraced laterals of 6,000 to 7,000 feet in sandstone units and operators are reporting Estimated Ultimate Recoveries (**EUR**) of 300,000 to 600,000 barrels of oil per well. These results are comparable to wells in the Eagle Ford Shale oil zone in the well-known producing areas. In addition, the Eaglebine target reservoir depths of 5,000 to 8,000 feet are shallower than typical Eagle Ford Shale wells resulting in materially lower well costs which should materially improve the net present value (**NPV**) of individual wells.

Early recognition of the potential of the emerging Eaglebine play has enabled Sun to acquire a substantial lease holding at lease costs significantly lower than those in the well-known areas of the Eagle Ford Shale oil trend. Utilising information from old vertical wells situated within the boundaries of the leases and recent

<sup>1</sup> Sun will work with the Vendor to acquire up to 10,000 acres, however, less than 10,000 acres may ultimately be acquired. The numbers throughout this announcement are based on the acquisition of 10,000 acres.



horizontal well production history from nearby Eaglebine producing wells, independent Houston based petroleum engineering and geological consultants, Ralph E Davis Associates Inc. (**Ralph E. Davis**) has estimated **unrisked net Prospective Resources within the Delta Oil Project of 10 million barrels of oil from one sand unit and potential upside of a further unrisked 10 to 20 million barrels of oil from other sand units within the 400 feet thick target zone.**

The Ralph E. Davis net Prospective Resource estimate uses the following assumptions:

- a total of 30 wells spaced at 320 acres (i.e. 30 wells across 10,000 acres)\*\*;
- each well with an Initial Production (**IP**) rate of 700 barrels of oil per day (**Bopd**);
- each well with an EUR of 452,000 barrels of oil (**bo**) per well from one 20 feet thick sand unit located over all of the Delta Oil Project area;
- oil at US\$90 per barrel and gas at US\$4 per thousand cubic feet (**Mcf**) held flat for the well life of 30 years;
- each well with a productive life of 30 years;
- capital cost of US\$6 million per well; and
- operating costs of US\$10,000 per month per well.

Assuming production of the 10 million barrels of Prospective Resources, Ralph E. Davis estimated the NPV of the Delta Oil Project of **US\$310 million<sup>2</sup>** which equates to:

- NPV of **US\$10,333,333 per well**; and
- NPV of US\$31 per barrel of oil for 10 million barrels of oil from one 20 feet thick sand unit, and
- Discounted at 10%, net of royalties, capital costs, operating costs and state taxes but excluding company income taxes

### **Margarita & Redback Projects, Onshore, South Texas (Sun Resources 20-37.5%WI)**

Sun Resources will have a material equity position in the following exploration prospects, subject to ongoing farm-out marketing and future leasing:

<b>Project</b>	<b>Prospect</b>	<b>Gross Potential</b>	<b>Comments</b>
<b>Margarita</b>	TB#18	1.7bcfe	Frio Fm.
	TBF1.64	0.5mmbbl	Lower Frio
	Cazadores	20 to 61 bcf	Upper Wilcox
	W2A	100 to 200 bcf	Wilcox
	Agave	67 to 208 bcf	Cook Mountain
<b>Redback*</b>	R-1.95	58 bcfe	Middle Vicksburg

## **1.2 OIL AND GAS PRODUCTION**

The table below summarises Sun Resources' actual net working interest ("WI%") production for the quarter and compares it with the previous quarter, with all production being derived from the Flour Bluff gas plant in Corpus Christie in South Texas. USA gas prices fell through the quarter from a high of US\$3.00 per 1,000 cubic feet for gas (mcf) to a low of below US\$2.00 per mcf, despite the northern hemisphere winter.

<b>PRODUCTION (Sun WI% share)</b>	<b>December 2011 Quarter</b>	<b>September 2011 Quarter</b>	<b>Variance</b>
<b>Gas (mmscfg)</b>	12.6	8.4	+50%
<b>Oil (bo)</b>	247	168	+48%
<b>Net Revenue (US\$)</b>	-28,079	+3,568	-787%

Units: mmscfg – million cubic feet gas; bo – barrels of oil

## **2. THAILAND**

### **L20/50 Block, Onshore Phitsanulok Basin (Sun Resources – 45%WI)**

#### ***Update***

During the March 2012 quarter, L20/50 Operator Carnarvon Petroleum Limited advised that it was continuing with its efforts to farm-out a portion of the Joint Venture's interest to assist in funding the ongoing exploration of the block. Commitments during the second obligation period include a 3D survey and two exploration wells. The joint venture continues to carry forward a credit for one commitment well after exceeding the commitments of the '1<sup>st</sup> Obligation Period', thus effectively leaving only one exploration well to be drilled in the remainder of the second obligation period.

The joint venture is continuing to review options for the acquisition of 3D seismic data over the most prospective areas of the basin. A 3D survey will likely be acquired to improve understanding of the complex faulting and structure of the basin, and to better define and de-risk identified leads.

Only \$225 thousand was expended by Sun during the quarter in respect of this project.

## **3. MALTA**

### **ESA Area 4, Block 3 and ESA Area 5, Offshore Malta (Sun Resources 20%WI)**

#### ***Update***

There was no significant activity during the March 2012 Quarter, with Pancontinental Oil & Gas NL, as Operator of the permit, continuing to assert its rights in its negotiations with the Government of Malta.

## **4. AUSTRALIA**

### **WA-47-R (WA-254-P), Offshore Carnarvon Basin, W.A. (Sun Resources 7.86% to 9.25%WI)**

The Operator of WA-254-P, Apache Northwest ("Apache"), advised that the Joint Venture had been awarded the WA-47-R Retention Lease ('RL'), covering the Sage-1 oil discovery, from the Designated Authority. Sun Resources and two other joint venture parties are continuing a divestment process of their combined 29.8% working interest in the RL that contains the Sage-1 well.

## **5. NEW PROJECT DEVELOPMENT – NW Europe**

#### ***Update***

Negotiations by the Operator were continuing at the end of the Quarter with local government on the approval process for the well. A further extension to the end of May 2012 has been agreed between Sun Resources and the Operator to allow the Operator time to continue to seek well approval from the local authorities. This is an important condition precedent in the executed Term Sheet. Further details relating to this farm-in will be announced to the market following the receipt of necessary local government approvals and the execution of a definitive Farm-in Agreement.

## **6. CORPORATE**

Mr Damian Kestel joined the Board as a non-executive director, effective 1 February 2012 and Mr John Kenny joined the Board as a non-executive director, effective 1 March 2012.

Sun held cash of \$3,442 million at the end of the Quarter.

### **BY ORDER OF THE BOARD**



**MATTHEW A BATTRICK, MANAGING DIRECTOR**

This report is lodged on the Company's website, [www.sunres.com.au](http://www.sunres.com.au).

Information contained in this report was sourced from the Operators of various Joint Ventures in which the Company has interests and was compiled by the Managing Director of Sun Resources, Matthew Battrick, BSc (Geol), MPESA, MPESGB, MAAPG, GAICD who has had more than 30 years' experience in the practice of geology and 30 years' experience in petroleum geology.