

ESSENTIAL PETROLEUM RESOURCES LIMITED **QUARTERLY EXPLORATION REPORT** **FOR THE THREE MONTH PERIOD ENDED 31 DECEMBER 2008**

HIGHLIGHTS

- Detailed analysis of the East Wing-1 (onshore PEP 168) gas discovery test results yielded estimated “Proved” reserves of 1.54 BCF. Additional “Probable” reserves of 0.53 BCF.
- East Wing gas sales negotiations with several possible buyers have started.
- Fermat-1 well in the offshore permit, VIC/P46, was plugged and abandoned. No significant hydrocarbons reported.
- Essential Petroleum exercised its pre-emptive right to increase its working interest in the Killanoola oil discovery from 20% to 70%.
- Killanoola hosts an estimated mean recoverable oil resource of 800,000 barrels from an in-place resource estimate of 7,000,000 barrels.

DRILLING ACTIVITIES

PEP 168 EPR: 100% Onshore Otway Basin, Victoria

Gas Discovery at East Wing-1

Essential Petroleum made its first commercial gas discovery in the June quarter 2008 with the successful drilling of the East Wing-1 well, located in the onshore permit PEP 168 near Port Campbell.

Following the perforation and testing of the Waarre Formation in East Wing-1 in September 2008, Essential Petroleum completed a detailed analysis of the test results to determine the estimated recoverable gas reserves for the this well.

As announced to the ASX on 27 November 2008, the estimated reserves at East Wing-1 are summarized in the table below:

Reserves Category	BCF	Notes
Proved (1P) developed	1.39	Currently perforated
Proved (1P) undeveloped	0.15	Currently not perforated
Proved (1P) Total	1.54	
Probable	0.53	Connected compartments
Proved and Probable (2P)	2.07	
North structure	4.46	Updip potential

Note that the reserve estimates are in-house estimates and have not been certified
 BCF – Billion Cubic Feet of gas

Geological Structure of the East Wing Gas Field

The East Wing gas field is a faulted complex structure involving the Flaxman Formation, Waarre C and (probably) Waarre A reservoirs. This interpretation is supported by indications of a cross-fault flow in the pressure data. The drainage area of the production test is larger than the compartment in which the well was drilled which also suggests communication between reservoirs. These indications are positive for the East Wing gas field.

The currently perforated and unperforated reservoirs have an estimated “Proved” reserves of 1.54 BCF. The cross-fault reserves estimate of 0.53 BCF have been placed in a lower “Probable” reserve category until these reserves have been confirmed by production history.

Flow rate tested, and derived average permeability of 70 to 160 mD will support production at normal commercial rates.

The adjacent structure, from which Essential Petroleum believes gas is being derived, has substantial updip potential in its own right. The recoverable resources estimate of 4.46 BCF, interpreted in this structure are presented separately as exploration potential.

Summary of Test Results

Essential Petroleum also undertook detailed analysis of the gas quality from the East Wing discovery. The main results are that:

- The methane content was measured to be 77.0%;
- The carbon dioxide content was measured to be 13.2%;
- The condensate flow rate was measured at 8 barrels per million standard cubic feet of gas produced per day; and
- The API gravity of the condensate is 72.5°.

Gas Marketing

Essential Petroleum is currently in confidential discussions with energy retailers who are interested in buying the gas produced from the East Wing-1 gas discovery.

VIC/P46 EPR: 25% Offshore Otway Basin, Victoria

Offshore Otway Basin Drilling Program to Begin with Fermat-1

On 10 December 2009, Essential Petroleum Resources Limited was advised by the operator of the offshore Otway Basin permit VIC/P46, Beach Petroleum Limited (ASX:BPT), that the West Triton jack-up rig was unable to successfully jack up at the Spikey Beach-1 well location in the Bass Basin.

As a result, a decision was made to move the rig to the VIC/P46 Fermat prospect location in the Otway Basin, 28 days ahead of schedule.

On 15 December 2008, Essential Petroleum announced to the ASX that it had been informed by Beach that drilling had commenced at the Fermat-1 well.



On 15 January 2009, Essential Petroleum announced to the ASX that it been informed by Beach Petroleum, that the Fermat-1 well had been plugged and abandoned. No significant hydrocarbons were reported.

As yet, the company has not met its December 2008 and January 2009 cash call requirements for the Fermat-1 drilling operations.

Negotiations for a farm-out of an interest in VIC/P46, to allow Essential to meet its cash call requirements are ongoing.

Interests in VIC/P46 are:

Beach Petroleum Limited (Operator)	50.00%
Mitsui E&P Australia Pty Ltd	25.00%
Essential Petroleum Resources Limited	25.00%

OTHER OPERATIONS

PEP 151 EPR: 75% Onshore Otway Basin, Victoria

Seismic interpretation and mapping of target horizons of the 111 line km Digby-Dartmoor 2D Seismic Survey in PEP 151 has commenced.

The Digby West and Dartmoor leads are located in the Dartmoor Trough, an Early Cretaceous half graben in the north-eastern part of the permit.

A preliminary review of the newly acquired seismic data suggests that both the Pretty Hill reservoir sands and Casterton Formation source rocks are present in the trough. These two sequences are essential elements of the Early Cretaceous petroleum system. The Pretty Hill Sandstone hosts the gas fields and oil accumulations of the productive Penola Trough in South Australia. Organic rich lacustrine shales of the basal Casterton formation are the hydrocarbon source rocks for these fields.

The seismic also indicates up to 4 km of Early Cretaceous section in the deepest parts of the trough, sufficient for the maturation and expulsion of hydrocarbons from source rocks at the base of the section.

Interest holders in the permit are Essential Petroleum (Operator): 75% and Inland Oil Resources Limited ("IOR"): 25%.

PEP 150 EPR: 20% Onshore Otway Basin, Victoria

Native title negotiations led by the operator, Beach Petroleum Limited and the native title claimants are ongoing.

PRL 13 EPR: 20% Onshore Otway Basin, South Australia

As a result of Origin Energy's sale of its assets in the Penola Trough in South Australia, Essential Petroleum has exercised its pre-emptive rights to acquire Origin's 50% working interest in the retention licence, PRL 13. When this transaction is complete, Essential Petroleum will have increased its working interest in the licence to 70%.

Beach as operator is planning a workover program for the Killanoola DW 1 oil discovery.



It is estimated that the Killanoola structure hosts a mean recoverable oil resource of 800,000 bbls from an in place oil resource of 7,000,000 barrels.

VIC/P50 EPR: 100% Offshore Otway Basin, Victoria

Essential Petroleum sought and was granted a permit variation and suspension of the year 3 work commitment to ensure a well commitment in VIC/P50 can be met.

The Company requires a Joint Venture partner to fund the acquisition of the 3D and 2D seismic surveys committed to mature the Euclid and Oliphant leads to prospect status.

Otway Basin Offshore, Victoria General

Further work was progressed with plans to farm out a portion of Essential Petroleum's interests in VIC/P46 and VIC/P50.

**ESSENTIAL PETROLEUM RESOURCES LTD
PERMIT EXPENDITURE SUMMARY FOR THE QUARTER ENDED 31 DECEMBER 2008***

Permit Number	Essential Petroleum Interest	Seismic Survey Expenditure	Geological & Geophysical Studies	Environment, Native Title & Permit Maint.	Drilling Expenditure	Total
PEP 151	75.00%	\$ 10,000.00	\$ -	\$ 155.00	\$ -	\$ 10,155.00
PEP 150	20.00%	\$ -	\$ -	\$ -	\$ -	\$ -
VIC/P46	25.00%	(\$ 16,960.00)	\$ 39,929.00	\$ 25,981.00	\$ 233,001.00	\$ 281,951.00
VIC/P50	100.00%	\$ 2,640.00	\$ 1,100.00	\$ 15,349.00	\$ -	\$ 19,089.00
PRL 13	20.00%	\$ -	\$ -	\$ -	\$ -	\$ -
PEP 168	100.00%	\$ -	\$ 22,330.00	\$ 2,981.00	\$ 693,468.00	\$ 718,779.00
Non Specific	100.00%	\$ -	\$ -	\$ -	\$ -	\$ -
		(\$ 4,320.00)	\$ 63,359.00	\$ 44,466.00	\$ 926,469.00	\$ 1,029,974.00

* This statement has been prepared based on accrual accounting principles

John Remfry, Managing Director, Essential Petroleum Resources Limited has prepared this Quarterly Exploration Report.

For more information contact:

John Remfry
Managing Director
Essential Petroleum
Tel: (03) 9699 3009
Email: info@eprl.com.au

For Media Enquiries Contact:
Ian Howarth
Farrington National
Tel: (03) 9223 2465
Mobile: 0407 822 319
Or visit the website: www.essentialpetroleum.com.au

Rule 5.3

Appendix 5B

Mining exploration entity quarterly report

Name of entity:

Essential Petroleum Resources Limited

ACN or ARBN

089 956 150

Quarter ended ("current
quarter")

31 December 2008

Consolidated statement of cash flows

Cash flows related to operating activities			Current quarter \$A'000	Year to date (12 months) \$A'000
1.1	Receipts from product sales and related debtors		6	92
1.2	Payments for	[a] exploration and evaluation	(1,058)	(2,387)
		[b] development		
		[c] production		
		[d] administration	(386)	(666)
1.3	Dividends received			
1.4	Interest and other items of a similar nature received		38	92
1.5	Interest and other costs of finance paid			
1.6	Income taxes paid			
1.7	Other (provide details if material)			
Net Operating Cash Flows			(1,400)	(2,869)
Cash flows related to investing activities				
1.8	Payment for purchases of:	[a] prospects	-	-
		[b] equity investments	-	-
		[c] other fixed assets	-	-
1.9	Proceeds from sale of:	[a] prospects	-	-
		[b] equity investments	-	-
		[c] other fixed assets	-	-
1.10	Loans to other entities			
1.11	Loans repaid by other entities			
1.12	Other (provide details if material)			
Net Investing Cash Flows			-	-
1.13	Total operating and investing cash flows (carried forward)		(1,400)	(2,869)

Appendix 5B**Mining exploration entity quarterly report**

1.13	Total operating and investing cash flows (brought forward)	(1,400)	(2,869)
Cash flows related to financing activities			
1.14	Proceeds from issues of shares, options, etc.	-	-
1.15	Proceeds from sale of forfeited shares	-	-
1.16	Proceeds from borrowings	-	-
1.17	Repayment of borrowings	-	-
1.18	Dividends paid	-	-
1.19	Other (payment in relation to capital raising)	-	-
Net financing cash flows		-	-
Net increase (decrease) in cash held		(1,400)	(2,869)
1.20	Cash at beginning of quarter/year to date	1,697	3,166
1.21	Exchange rate adjustments to item 1.20	-	-
1.22	Cash at end of quarter	297	297

Payments to directors of the entity and associates of the directors**Payments to related entities of the entity and associates of the related entities**

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	107
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions

Non-cash financing and investing activities

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest.

Financing facilities available

	Amount available \$A'000	Amount used \$A'000
3.1 Loan facilities		
3.2 Credit standby arrangements		

Estimated cash outflows for next quarter

	\$A'000
4.1 Exploration and evaluation	10,000*
4.2 Development	-
Total	10,000*

* To date, the Company has not met its December 2008 and January 2009 cash call requirements for the Fermat-1 drilling operations. Essential Petroleum has until 17 February 2009 to rectify its default. Farmout activities necessary to assist with the funding of VIC/P46 and VIC/P50 are continuing.

Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows:

	Current quarter \$A'000	Previous quarter \$A'000
5.1 Cash on hand and at bank	32	886
5.2 Deposits at call	265	2,280
5.3 Bank overdraft	-	-
5.4 Other (provide details)	-	-
Total: cash at end of quarter (item 1.22)	297	1,697

Changes in interests in mining tenements

	Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1	Interests in mining tenements relinquished, reduced or lapsed			
6.2	Interests in mining tenements acquired or increased			

Issued and quoted securities at end of current quarter

Description includes rate of interest and any redemption or conversion rights together with prices and dates.

	Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1 Preference securities (description)				
7.2 Changes during quarter:				
(a) Increases through issues				
(b) Decreases through returns of capital, buy-backs, redemptions				
7.3 Ordinary securities	618,241,636	618,241,636		
7.4 Changes during quarter:				
(a) Increases through issues				
(b) Decreases through returns of capital, buy-backs, redemptions				
7.5 Convertible debt securities (description)				
7.6 Changes during quarter:				
(a) Increases through issues				
(b) Decreases through returns of capital, buy-backs, redemptions				
7.7 Options (description and conversion factor)			<i>Exercise price</i>	<i>Expiry date</i>
Employee Options		-		
Unlisted Options	3,000,000	-	10 cents	31/12/2009
7.8 Issued during quarter				
- Employee Options				
- Unlisted Options		-		
7.9 Exercised during quarter				
7.10 Expired during quarter				
7.11 Debentures (total only)				
7.12 Unsecured notes (totals only)				

Compliance Statement

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act, 2001 or other standards acceptable to ASX (see note 4).
- 2 This statement does give a true and fair view of the matters disclosed.

Sign here:  Date: 30 January 2009
(Director)

Print Name: **John G Remfry**

Notes

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.

- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.

- 3 **Issued and quoted securities:** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.

- 4 The definitions in, and provisions of, *AASB 1022: Accounting for Extractive Industries* and *AASB 1026: Statement of Cash Flows* apply to this report.

- 5 **Accounting Standards** ASX will accept, for example, the use of International Accounting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.