



**ESSENTIAL PETROLEUM RESOURCES LIMITED  
QUARTERLY EXPLORATION REPORT  
FOR THE THREE MONTH PERIOD ENDED 30 SEPTEMBER 2002**

In the September quarter the Company conducted tests on the Port Fairy No 1 well in PEP 152 to evaluate strong gas shows encountered while drilling. Following perforation of the Flaxman Formation the well was shut in for a period of one month. Subsequent testing of the well recorded an initial flow of gas estimated to be 4 to 5 mmcf/d through a 2 inch flow line for a period of about 5 minutes. To determine the pressure-temperature conditions and the type of fluid in the well a down hole pressure survey was run in the well. The pressure survey of the well indicated gas from zero to 274 metres overlying a 15 metre column of oil from 274 to 289 metres, in turn overlying brine completion fluid. Further geological studies of the reservoir formation and engineering studies of the well will include petrological and petrophysical studies and possible stimulation techniques and alternative completion designs of the well. These studies should indicate whether the discovery is commercially viable.

Earlier in the year the Company carried out a detailed study of the area adjoining and immediately to the south of Vic/P46, and identified this area as one of the most prospective areas in the offshore Otway Basin. During the quarter the Company was awarded the application area known as V01-1 immediately south of Vic/P46 in the offshore Otway Basin. The Company accepted the offer and has commenced geological and geophysical studies of the permit known as Vic/P50.

During the quarter, comprehensive geological and seismic interpretation studies were also undertaken over each of the Company's permits in the Otway Basin. Agreement has been reached to drill the Koroit West prospect in PEP 152 which is expected to spud in December 2002. In PEP 159 a well will be drilled on the Banganna Prospect and it is expected that the well will be spudded in the last week of February or the first week of March 2003.

During the September quarter no exploration wells were drilled and no seismic surveys were undertaken. The Port Fairy well recovered both oil and gas but no reserve estimates have been made and further studies are required to establish whether the field is commercially viable.

**PEP 151 - 100% Onshore Otway Basin Victoria**

In the previous quarter the Victorian Government formally awarded the permit following an agreement between Essential Petroleum and the members of the Gunditjmarra people, who have a native title claim over the crown land that is covered by PEP 151.

The Company has made application to the Victorian Government to undertake a seismic survey in PEP 151 and it is anticipated approval will be given in time for the survey to take place in either late spring or early summer of 2003.

**PEP 150 - 25% Onshore Otway Basin Victoria**

Origin Energy Resources Limited as the Operator of the permit is continuing Native Title negotiations with the Gunditjmarra native title claimants on behalf of the Joint Venture. Preliminary geophysical mapping of the permit is continuing.

**PEP 152 - 33.9% Onshore Otway Basin Victoria**

During the March quarter the Company drilled a well on the Port Fairy structure in the PEP 152 permit. The Port Fairy No 1 well, which was drilled in January 2002 as a sole risk project by Essential Petroleum and Lakes Oil NL encountered excellent wet gas shows in the Flaxman and Eumeralla formations over a gross interval from 1382 mRT to 1500 mRT. The well was cased and suspended and a further test of the Flaxman Formation 1 was undertaken on 7 to 10 August 2002.

The well initially failed to produce hydrocarbons. A month later the well was revisited and on opening of the surface valve to check for pressure the well produced gas. The initial flow of gas was estimated to be 4 to 5 mmcf/d through a 2 inch flow line for a period of about 5 minutes. To determine the pressure-temperature conditions and the type of fluid in the well a down hole pressure survey was subsequently run in the well. The pressure survey of the well indicated gas from zero to 274 metres overlying a 15 metre column of oil from 274 to 289 metres, in turn overlying brine completion fluid.

A sample of the oil was recovered by swabbing the well and the oil and gas samples were submitted for analysis. The oil sample appears to be a full range naphtha with a small amount of mono aromatics. The Specific Gravity was 0.77 at 15 degrees Centigrade equivalent to 52 degrees API gravity oil. The analysis indicates a light crude with no evidence of biodegradation. The gas contained condensate and minor light oil fractions and a zero carbon dioxide content. The results of the pressure survey indicate that about 30 cu ft of gas and 0.26 bbl of oil was in the tubing. This result suggests that the gas is solution gas produced from the oil rising in the tubing and that the formation contains light naphthenic oil saturated with gas.

The reservoir appears to be a glauconitic greensand with poor reservoir characteristics and may have suffered significant formation damage. Further geological and engineering studies in the near future will include petrological and petrophysical analysis of the reservoir and possible stimulation techniques and alternative completion designs of the well. These studies should indicate whether the discovery is commercially viable. Seismic mapping of the permit in the area to the north of Port Fairy has identified the Koroit West prospect. The joint venture has agreed to drill the Koroit West Prospect as a follow up to the Port Fairy discovery. The well will target a potential sandstone reservoir in the Flaxman/Basal Belfast formation and it is expected that the well will be spudded in the first or second week of December 2002

**PEP 159 - 50% Onshore Otway Basin Victoria**

The Operator of the permit, Origin Energy Petroleum Pty Ltd completed seismic studies over several areas in the permit, including amplitude versus offset studies (AVO) over the Banganna, Findra and Cartcurrong prospects.

The Banganna prospect exhibited AVO anomalies, which may indicate the presence of gas and the Joint Venture has selected the Banganna prospect as the next structure to be tested in the permit. Banganna 1 will be located in the southwestern part of the permit and the primary target will be the Pretty Hill Sandstone in the Pretty Hill petroleum system. The well is expected to spud in the last week of February or the first week of March 2003.

**PEL 72 - 100% (subject to farmin terms) Onshore Otway Basin South Australia**

PEL 72 is located in the onshore Otway Basin in south-eastern South Australia and was renewed for a period of five years by Essential Petroleum in March 2002. The permit was renewed with Essential Petroleum as the operator and 100 percent sole participant. Since the end of the quarter, farmout discussions were held with parties interested in participating in the permit and Essential Petroleum Resources Limited reached agreement with Beach Petroleum Ltd, to farmin to PEL 72.



Under the terms of the farmin, Beach Petroleum will earn a 50% interest in PEL 72 by bearing 50% of the exploration costs and Essential Petroleum will remain the operator of the permit.

As a result of the farmin, PEL 72 interest holders will be:

Essential Petroleum Resources Limited	50%
Beach Petroleum Limited	50%

**Vic/P46 - 100% (subject to farmin terms) Offshore Otway Basin**

Essential Petroleum is continuing detailed geological and geophysical studies in this permit. Essential Petroleum approached several companies interested in farming into the permit and a detailed information package was prepared. The Company also undertook detailed planning for a seismic survey to be undertaken in the fourth quarter to detail several identified prospects and leads.

Since the end of the quarter, Essential Petroleum has reached agreement with Mittwell Energy Resources Pty Ltd, a wholly owned subsidiary of Mitsui & Co Ltd, to farmin to Vic/P46 for an interest of up to 32.5%.

The terms of the farmin have yet to be finalised as other interested parties are still evaluating the permit and the farmin opportunity.

Essential Petroleum and Mittwell will jointly undertake a detailed 2D seismic survey over the shelf prospects in VIC/P46. The seismic survey is expected to commence on the 10th November 2002.

**Vic/P50 (formerly V01-1 application area) - 100% Offshore Otway Basin**

Essential Petroleum was awarded the V01-1 gazettal area. The permit is now named VIC/P50. The terms of the bid include 1000 km of 2D seismic and one well in the mandatory first three year period.

The work program for the first year comprises geological and geophysical studies and these studies of the permit have commenced.

**PERMIT EXPENDITURE SUMMARY FOR THE PERIOD**

Permit Number	Essential Petroleum Interest	Seismic Survey Expenditure	Geological and Geophysical Studies	Environmental Native Title & Permit Maintenance	Drilling Expenditure
PEP 151	100%	\$0.00	\$10,055.00	\$20,812.00	\$0.00
PEP 150	25%	\$0.00	\$1,358.00	\$6,192.00	\$0.00
PEP 152	33.9%	\$5,063.00	\$21,612.00	\$4,830.00	\$315,929.00
PEP 159	50%	\$0.00	\$45,500.00	\$8,914.00	\$0.00
PEL 72	100%	\$0.00	\$0.00	\$532.00	\$0.00
VIC/P46	100%	\$0.00	\$16,475.00	\$1,750.00	\$0.00
VIC/P50	100%	\$0.00	\$0.00	\$5,677.00	\$0.00

*Roger Blake MSc, Exploration Director, Essential Petroleum Resources Limited has prepared this Quarterly Exploration Report.*

# Appendix 5B

## Mining exploration entity quarterly report

Name of entity:

Essential Petroleum Resources Limited

ACN or ARBN

089 956 150

Quarter ended ("current  
quarter")

September 30, 2002

### Consolidated statement of cash flows

Cash flows related to operating activities	Current quarter \$A'000	Year to date ( 3 months) \$A'000
1.1 Receipts from product sales and related debtors		
1.2 Payments for		
[a] exploration and evaluation	(492)	(492)
[b] development		
[c] production		
[d] administration	(330)	(330)
1.3 Dividends received		
1.4 Interest and other items of a similar nature received	44	44
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Other - Project costs recovered from other joint venture partners	537	537
<b>Net Operating Cash Flows</b>	<b>(241)</b>	<b>(241)</b>
<b>Cash flows related to investing activities</b>		
1.8 Payment for purchases of:		
[a] prospects		
[b] equity investments		
[c] other fixed assets	(23)	(23)
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)		
<b>Net Investing Cash Flows</b>	<b>(23)</b>	<b>(23)</b>
1.13 Total operating and investing cash flows (carried forward)	(264)	(264)

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

1.13	Total operating and investing cash flows (brought forward)	(264)	(264)
<b>Cash flows related to financing activities</b>			
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 (provide details if material)	-	-
<b>Net financing cash flows</b>		-	-
<b>Net increase (decrease) in cash held</b>		(264)	(264)
1.20	Cash at beginning of quarter/year to date	3,784	3,784
1.21	Exchange rate adjustments to item 1.20	-	-
1.22	<b>Cash at end of quarter</b>	3,520	3,520

**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	173
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.

## Appendix 5B

## Mining exploration entity quarterly report

## 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	541
4.2 Development	-
<b>Total</b>	<b>541</b>

## 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	144	24
5.2 Deposits at call	3,376	3,792
5.3 Bank overdraft	-	(33)
5.4 Other (provide details)	-	-
<b>Total: cash at end of quarter</b> (item 1.22)	<b>3,520</b>	<b>3,783</b>

## 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	VIC P50	100%	-	100%

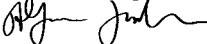
## Issued and quoted securities at end of current quarter

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)
<b>Preference securities</b>				
7.1 (description)				
7.2 Changes during quarter:				
(a) Increases through issues				
(b) Decreases through returns of capital, buy-backs, redemptions				
<b>7.3 Ordinary securities</b>	67,955,002	67,955,002		
7.4 Changes during quarter:				
(a) Increases through issues				
(b) Decreases through returns of capital, buy-backs, redemptions				
<b>Convertible debt securities</b>				
7.5 (description)				
7.6 Changes during quarter:				
(a) Increases through issues				
(b) Decreases through returns of capital, buy-backs, redemptions				
<b>Options</b> (description and conversion factor)			<i>Exercise price</i>	<i>Expiry date</i>
7.7				
Shareholder Options	35,756,501	35,756,501	\$0.20	01/12/2002
Founder Options	3,500,000	-	\$0.35	30/06/2004
Employee Options	40,000	-	\$0.25	30/06/2004
7.8 Issued during quarter				
7.9 Exercised during quarter				
7.10 Expired during quarter				
7.11 <b>Debentures</b> (total only)				
7.12 <b>Unsecured notes</b> (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:   
\_\_\_\_\_  
(Director/Company secretary)

Date: 31/10/2002

Print Name:

## 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.