



# *Emerald Bay Energy*

**EMERALD BAY ENERGY, INC.**

**MANAGEMENT DISCUSSION AND ANALYSIS**

**FOR THE YEAR ENDED DECEMBER 31, 2003**

**MAY 18, 2004**

## MANAGEMENTS' DISCUSSION AND ANALYSIS

*The following discussion and analysis of financial information and related data concerning Emerald Bay Energy, Inc. is reported in Canadian dollars and has been prepared in accordance with Canadian generally accepted accounting principles ("GAAP"), and should be read in conjunction with the audited consolidated financial statements for the year ended December 31, 2003.*

*Information which is contained herein contains estimates and assumptions which management is required to make concerning future events, and may constitute forward-looking statements under applicable securities laws. Forward-looking statements include plans, expectations, estimates, forecasts and other comments that are not statements of fact. Although such expectations are viewed as reasonable by the Company, no assurance can be given that such expectations will be realized. Such forward-looking statements are subject to risks and uncertainties and may be based on assumption that may cause actual results to differ materially from those implied herein, and therefore are expressly qualified in their entirety by this cautionary statement*

### OVERVIEW

Emerald Bay Energy, Inc. ("Emerald" or the "Company") is engaged in the business of exploration, development and production of crude oil, natural gas and natural gas liquids. As a strategic initiative, the Company is also developing technology for down-hole drilling applications, targeting marginal-producing and abandoned wells.

### BUSINESS ENVIRONMENT

	2003	2003 vs. 2002	2002
AECO Monthly Index (\$ per gigajoules)	\$6.38	64%	\$3.87
WTI (US\$ per barrel)	\$31.04	19%	\$26.07
Canadian/U.S. Dollar average exchange rate	0.714	10%	0.649

One major component affecting the operations is the prices received for the Company's sales volumes. Emerald sold all of its natural gas production volumes at the AECO Monthly Index. Natural gas prices increased in 2003 from 2002 due to the concerns over supply within North America. Crude oil prices increased due to supply disruptions in world production, especially in Iraq, and the unexpected increase in world demand mostly led by China. The Canadian dollar strengthened significantly in 2003 from 2002 primarily due to the large budget deficit coupled with an economic slowdown in the United States.

SELECTED ANNUAL INFORMATION	Dec. 31, 2003 (\$)	Dec. 31, 2002 (\$)
Revenues (before royalties)	1,324,794	847,270
Income (loss) before income taxes	(390,203)	(310,801)
Net income (loss)	(297,852)	(229,932)
Net income (loss) per share (basic and diluted)	(0.044)	(0.036)
Total assets	2,126,761	1,389,840
Secured term debt	0	412,500

The Company began the 1<sup>st</sup> quarter of 2003 by settling the outstanding intellectual property litigation regarding the Lateral Drainhole Drilling (LDD) Tool. This agreement provides for both Emerald Bay and Wenzel Downhole Tools to pursue the development of Lateral Drainhole Tool independent of each other and each company retains ownership of any improvements they may develop using the Cherry technology. Under this settlement agreement, Emerald Bay Energy Inc. and Wenzel Downhole Tools Ltd. are the only two entities entitled to manufacture, market and use the technology in North America.

Following the litigation settlement Mr. Gibson C. Scott was appointed a member of the Board of Directors of the Company. Mr. has an impressive track record with more than 29 years of global industry experience with Sperry-Sun Drilling Services. Mr. Scott's expertise and experience in the service sector will be essential as the Company escalates its development and deployment schedule of the LDD Tool.

Emerald also completed an acquisition of oil assets located in the well-established Somerset Field in South Texas. The purchase price was \$244,000 (CDN). The wells provide additional revenue and an excellent test-bed for the LDD Tool under development by the Company.

In order to finance the development of the LDD Tool and provide additional working capital during 2003, Emerald completed two private placements of common shares totaling \$457,400.

In the 4<sup>th</sup> quarter the Company completed it's first flow-through share offering raising \$1,340,000 for Emerald's 2004 exploration program.

## DETAILED REVIEW OF FINANCIAL RESULTS

### *Net Earnings and Cash Flow*

	2003	2002
	\$	\$
Net earnings (loss)	(297,852)	(229,932)
Per share	(0.044)	(0.036)
Cash flow from operations	(251,170)	(199,497)
Per share	(0.037)	(0.031)

The Company has recorded a net loss of \$(297,852) for the year-ended December 31, 2003, compared to a \$(229,932) loss for the year-ended December 31, 2002. Substantially increased research and development expenses, as well as an ARTC impairment provision, accounted for the majority of the net loss in 2003.

## Revenue

	2003	%	2002	%
	\$		\$	
Oil and NGLs	226,745	17.12	157,488	18.59
Per barrel	35.09		27.30	
Natural gas	1,098,049	82.88	689,782	81.41
Per mcf	6.86		4.74	
Total gross revenue	1,324,794		847,270	
Per boe	39.94		26.98	

## Sales Volumes

	2003	2002
Crude oil – barrels per day	6	4
Natural gas – mcf per day	439	399
NGLs – barrels per day	12	12
BOE – barrels per day	91	82

Gross revenue increased in 2003 as compared to 2002, as sales volumes increased to 91 boed from 82 barrels per day. Revenue from natural gas sales increased in 2003 due to average sales volumes for the year increasing from 399 thousand cubic feet per day (“mcf”) in 2002 to 439 mcf in 2003. Total natural gas revenue also increased due to higher natural gas prices received in 2003 compared to 2002, the reasons for which were discussed in a previous section. Emerald does not currently have any hedges in place.

## Royalties

	2003	2002
Total royalties	323,628	224,575
Per boe	9.76	7.48
Percentage of revenue	24%	26.5%

Royalties increased due the increase in total revenue as described above. Royalties decreased as a percentage of revenue due to the price sensitivity of the Company’s royalties. The royalty increased on a BOE basis due to the higher price per BOE in 2003 versus 2002. Higher sales values generally attract a higher royalty rate.

## Production Expense

	2003	2002
Total production expenses	284,526	189,265
Per boe	8.58	6.30
Percentage of revenue	21.5%	22.3%

Production expenses increased on a per boe basis to \$8.58, up from \$6.30 in 2002. The increase in production costs per boe reflects the upward pressure seen in the industry

on production costs. For Emerald, production costs per boe are anticipated to be reduced by production volume growth in 2004.

**General and administrative expenses**

	2003	2002
General and administrative expense	672,805	629,583

In order to carry out the increased activity levels resulting from Emerald's five year plan, Emerald also increased its staffing levels which resulted in higher overall administrative costs. Financing fees associated with the Company's fund raising efforts have been charged against equity. Emerald does not capitalize any administrative costs.

**Research and development expenses**

	2003	2002
Research and development expenditures	275,256	17,135

Research and development expenses increased substantially in the year ended December 31, 2003, compared to the year ended December 31, 2002. The Company increased it's development efforts after settlement of the intellectual property litigation as discussed previously.

**Depletion, depreciation and site restoration expense**

	2003	2002
Depletion and depreciation	115,511	67,185
Asset Retirement Obligation	4,053	1,362
Total	119,564	68,547

Depletion and depreciation increased to \$115,511 in 2003 versus \$67,185 in 2002 due to increased average sales volumes. Site restoration increased to \$4,053 in 2003 from \$1,362 in 2002 due to the ownership of an increased number of oil and natural gas wells and related facilities in 2003 and related higher sales volumes.

**Taxes**

	2003	2002
Future income tax expense (recovery)	(77,000)	(13,089)

The future tax recovery increased in 2003 as compared to 2002 due in part to the larger loss reported in 2003 and as a consequence of changes to the income tax provisions effecting resource companies. Under the terms of the Company's flow-through share agreements, Emerald has committed to incur \$1.4 million of qualifying oil and natural gas exploration and development expenses between January 1, 2004 and December 31, 2004. Emerald has already renounced the income tax benefits of these expenditures to the flow-through shareholders. The future tax impact of the renunciation of flow through shares has been reflected in equity and the future tax balance on the balance sheet.

## SUMMARY OF QUARTERLY RESULTS

### *2002 Quarterly Information*

	Q1	Q2	Q3	Q4	Total
Oil and natural gas revenue	221,810	193,661	131,745	300,054	847,270
Net earnings (loss)	(14,811)	(46,725)	(86,749)	(81,647)	(229,932)
-Per share – basic and diluted	(\$0.01)	(\$0.01)	(\$0.01)	(\$0.01)	(\$0.04)
Average daily sales – boed	95	77	71	87	82

### *2003 Quarterly Information*

	Q1	Q2	Q3	Q4	Total
Oil and natural gas revenue	456,672	303,089	265,408	299,625	1,324,794
Net earnings (loss)	106,731	3,301	(98,829)	(309,055)	(297,852)
-Per share – basic and diluted	\$0.02	-	-	(\$0.05)	(\$0.04)
Average daily sales – boed	85	90	97	92	91

Revenues were lower in the first three quarters of 2002 due to lower natural gas prices and lower volumes. Increases in 2003 Q3 and Q4 losses were associated with increased Research and Development activities, share issue costs, and the ARTC impairment provision.

## LIQUIDITY AND CAPITAL RESOURCES

In order to support Emerald's growth oriented business plan, the Company's strategy is to fund its capital expenditure program by issuing common and flow-through shares, to reinvest its cash flow, and to utilize bank debt. In 2003, Emerald completed two private placements of common shares and one offering of flow through common shares as outlined below, raising \$1,807,000 before issue expenses.

On May 2nd, 2003, Emerald issued 500,000 common shares, pursuant to a private placement at a price of \$0.25 per common share.

On December 23, 2003, Emerald issued 1,108,000 common shares and 1,108,000 share purchase warrants, pursuant to a private placement at a price of \$0.30 per common share. Each warrant entitles the holder to acquire a common share of Emerald at \$0.40 until December 23, 2005

On December 31, 2003, Emerald issued 3,826,076 shares on a flow-through basis, pursuant to a public offering at a price of \$0.35 per common share.

On December 31, 2003 the Company had access to \$345,000 as a revolving credit facility with a Canadian chartered bank.

## MAJOR PROPERTY RESERVES AND VALUES

The Company's Canadian oil and gas reserves as at December 31, 2003 were evaluated by Gilbert, Lausten, Jung Petroleum Consultants ("GLJ"), independent reservoir engineers. The GLJ evaluation report was prepared in accordance with

National Instrument ("NI") 51-101, the new standards of disclosure for oil and gas activities as mandated by the Canadian Securities Administrators for the year-ends beginning December 31, 2003.

Formal disclosure of oil and gas reserves as required by NI 51-101 will be included in The Company's Annual Information Form to be filed on SEDAR for the year ended December 31, 2003.

NI 51-101 replaces the former National Policy 2-B ("NP 2-B") and requires a higher degree of confidence in the assignment of oil and gas reserves. Under NI 51-101, proved reserves are defined to have a 90% probability that the actual reserves recovered will equal or exceed the assigned estimates compared to the previous definition of "reasonable certainty" as stipulated by NP 2-B. Also under NI 51-101, probable reserves are defined to have a 50% probability that the actual reserves recovered will equal or exceed the assigned estimates compared to the previous definition of "likelihood of existence" in NP 2-B. Because of the more stringent requirements under NI 51-101, the industry has adopted the interpretation that the new proved plus probable (P-50) reserves represent the most "realistic" estimates of remaining recoverable reserves. The following reserves information also adopts the general industry practice of comparing the new P-50 reserves to the previous proved plus risk adjusted (50%) probable reserves, commonly referred to as "established reserves", under NP 2-B.

The reserves associated with the U.S. (Somerset) property were evaluated by Paul R. Clevenger, P.E. as at December 31, 2003. The Paul R. Clevenger report conforms to the National Policy 2-B guide for Engineers & Geologists submitting oil and gas reports to Canadian provincial Securities administrators.

The following tables summarize the Company's reserves as at December 31, 2003 as independently evaluated by GLJ and Paul R Clevenger (for the U.S. property).

As at Dec. 31, 2003	Oil & NGLs (1)		Natural Gas (1)		Value (2)	
	Bbls	%	Mcf	%	\$	%
Edson	45,200	75	960,000	92	1,771,000	82
Clive	-		73,500	8	165,000	8
Somerset	15,000	25	-		170,000	8
Other	-		-		44,000	2
<b>Total</b>	<b>60,200</b>		<b>1,033,500</b>		<b>2,150,000</b>	

(1) Volumes are proven plus 50% of probable reserves as detailed in the Reserve Evaluation section of the report. Reserves are working interest before royalty obligations and Net Profits Interest.

(2) Estimated future net revenues before income taxes, discounted at 10%, as evaluated in the Reserve Evaluation. Net present value includes a reduction for the costs to develop Emerald Bay's proven undeveloped and probable reserves.

## Reserve Evaluation

<u>Evaluation</u>	Company interest reserves Before royalty			Present value before tax of Future cash flow (1&2)	
	Crude Oil bbls	NGLs bbls	Nat. Gas mcf	10% \$	12% \$
Proven	19,000	36,800	931,500	2,040,000	1,917,000
Probable	400	4,000	102,000	110,000	97,000
<b>Total Dec. 31, 2003</b>	<b>19,400</b>	<b>40,800</b>	<b>1,033,500</b>	<b>2,150,000</b>	<b>2,014,000</b>

(1) Value includes Alberta Royalty Tax Credit.

(2) Value of probable reserves are reduced by 50% to account for risk.

## **Shareholders Equity**

As discussed under the heading Liquidity and Capital Resources, 2003 reflects a significant level of activity in equity issuance. In 2003, share capital increased by a total of 5,434,076 common shares, and \$1,071,321 (net of share issue costs and tax effects) as compared to an increase of 56,000 shares (net of repurchases) and \$16,944 for 2002.

As at December 31, 2003, there were 11,708,304 common shares issued and outstanding, and an additional maximum total of 620,000 reserved for issuance on the potential exercise of common share purchase options. In addition, 1,108,000 common shares may be issued on the exercise of warrants associated with the December private placement.

The issues of common shares in 2003, combined with net loss of \$297,852, resulted in a net increase in total shareholders' equity from \$570,917 at December 31, 2002 to \$1,386,786 at December 31, 2003.

## **CONTRACTUAL OBLIGATIONS AND CONTINGENCIES**

Under the terms of the Company's flow-through share agreements, Emerald has committed to incur \$1.4 million of qualifying oil and natural gas exploration and development expenses between January 1, 2004 and December 31, 2004. Emerald has already renounced the income tax benefits of these expenditures to the flow-through shareholders.

## **OFF-BALANCE SHEET ARRANGEMENTS**

Emerald did not enter into any off-balance sheet arrangements.

## **TRANSACTIONS WITH RELATED PARTIES**

Emerald's initial significant shareholders have continued to support the Company's growth oriented business plan by investing additional funds by way of participating in Emerald's ongoing equity issues. As Emerald executes its growth plan, it is the Company's intention to continue to diversify its shareholder base by attracting new shareholders to participate in future offerings. Note 7 of the audited Financial Statements fully detail Emerald's related party transactions.

## **ACCOUNTING POLICIES**

Emerald's accounting policies are stated in Note 2 to the audited Financial Statements. Emerald follows policies that are in accordance with Canadian generally accepted accounting principles.