



PRESS RELEASE

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CELTIC REPORTS 2008 OPERATING RESULTS HIGHLIGHTED BY SIGNIFICANT INCREASES IN PRODUCTION AND RESERVES

Celtic Exploration Ltd. ("Celtic" or the "Company") has released its operating results for the three months and twelve months ended December 31, 2008. Summary of results are as follows:

	Three months ended December 31,			Twelve months ended December 31,		
	2008	2007	Change	2008	2007	Change
Production						
Oil [BBLs/d]	3,554	3,230	10%	3,404	3,107	10%
Gas [MCF/D]	51,029	35,898	42%	46,000	28,599	61%
Combined [BOE/D]	12,059	9,213	31%	11,071	7,873	41%
Production per million shares [BOE/D]	293	245	20%	276	222	24%
Drilling activity						
Total wells	14	8	75%	54	65	-17%
Working interest wells	10.2	8.0	28%	41.1	56.0	-27%
Success rate on working interest wells	100%	100%		88%	81%	
Undeveloped land						
Gross acres				318,969	327,050	-2%
Net acres				246,629	248,135	-1%
Reserves						
Oil & NGLs [MBBLs]				14,372	11,897	21%
Natural gas [MMCF] **				232,831	131,253	77%
Combined [MBOE]				53,177	33,773	57%
Finding, development & acquisition cost *						
Proved [\$/BOE]				\$19.43	\$21.45	-9%
Proved plus Probable [\$/BOE]				\$12.24	\$19.27	-36%
Recycle ratio [P+P]				2.9 x	1.7 x	
Net asset value per share *						
NPV 10%, before tax				\$18.92	\$11.80	60%
NPV 8%, before tax				\$21.13	\$12.99	63%

* FD&A costs, recycle ratios and net asset value relating to 2008 have been calculated using unaudited financial information.

** Natural gas reserves do not include sulphur reserves of 252,200 long tones at December 31, 2008 and 160,300 long tones at December 31, 2007.

HIGHLIGHTS

The year ended December 31, 2008 was another successful year in the execution of the Company's growth strategy. Highlights for 2008 are as follows:

- Drilled 54 (41.1 net working interest) wells during 2008 resulting in 7 (4.9 net) oil wells, 39 (30.9 net) natural gas wells and 3 (0.6 net) coal bed methane wells, for an overall success rate, based on net wells, of 88%;
- Increased average daily production by 41% to 11,071 BOE per day, up from 7,873 BOE per day in 2007 and achieved daily average production per million shares of 276 BOE per day, up 24% in 2007 compared to 222 BOE per day in the previous year;
- Increased proved plus probable reserves by 57% to 53.2 million BOE, up from 33.8 million BOE at December 31, 2007;
- Reported net asset value per share at year-end of \$18.92, based on net present value of reserves discounted at 10%, before tax and \$21.13 per share using an 8% discount rate, before tax; and
- The Company received regulatory approval on January 30, 2009 to drill five wells per section at its Kaybob South Montney development prospect.

DRILLING

During the year ended December 31, 2008, Celtic drilled 54 (41.1 net) wells compared to 65 (56.0 net) wells in the previous year, with an overall success rate of 88% (81% in 2007) on net wells drilled. The Company's average working interest in wells drilled during 2008 was 76% compared to an average working interest of 86% in 2007. In 2008, Celtic's horizontal drilling activity increased resulting in the average measured depth of net wells drilled of 2,960 metres, 35% deeper than the average measured depth per well of 2,200 metres in 2007.

PRODUCTION

Oil and gas production in 2008 increased 41% to average 11,071 BOE per day (69% gas) compared to 7,873 BOE per day (61% gas) in 2007. Average production in the fourth quarter of 2008 was 12,059 BOE per day, up 31% from 9,213 BOE per in the fourth quarter of 2007. Production per million shares outstanding in 2008 averaged 276 BOE per day, up 24% from 222 BOE per day in 2007.

Celtic's production is entirely based in Alberta and is divided into four core areas. In Southern Alberta, the Company's primary natural gas producing properties are located at Drumheller, Michichi and Richdale and its primary oil producing properties are located at Princess and Bantry. In East Central Alberta, the principal producing asset is a shallow natural gas property at Ashmont and Figure Lake. In Northern Alberta, the Company produces mainly light oil from Ogston, Otter and Utikuma Lake. In West Central Alberta, Celtic has both natural gas and light oil production at Kaybob, Fox Creek and Swan Hills. West Central Alberta was the Company's most active drilling area in 2008. Approximately 82% of Celtic's production came from this area. The following table provides a summary of daily average production in each core area:

PRINCIPAL PRODUCING PROPERTIES			
[BOE/d]	Year ended December 31, 2008	Year ended December 31, 2007	Year ended December 31, 2006
West Central Alberta	9,083	5,498	3,049
Southern Alberta	1,330	1,503	1,838
East Central Alberta	350	434	471
Northern Alberta	308	438	605
TOTAL	11,071	7,873	5,963

RESERVES

Celtic retains Sproule Associates Limited ("Sproule"), an independent qualified reserve evaluator to prepare a report on 100% of its oil and gas reserves. The Company has a Reserves Committee which oversees the selection, qualifications and reporting procedures of the independent engineering consultants.

Reserves as at December 31, 2008 were determined using the guidelines and definitions set out under National Instrument 51-101 ("NI 51-101").

At December 31, 2008, Celtic's proved plus probable reserves were 53.2 million BOE, up 57% from 33.8 million BOE at the end of 2007. The following table outlines a summary of the Company's reserves (gross company interest reserves before deduction of royalties payable, not including royalties receivable) at December 31, 2008:

SUMMARY OF RESERVES				
	Oil & NGLs [MBBLs]	Natural Gas [MMCF]	Combined [MBOE]	Future Development Capital Costs [\$000's]
Proved Developed Producing	6,406	76,905	19,224	-
Proved Developed Non-producing	429	4,408	1,164	4,308
Proved Undeveloped	1,486	42,439	8,558	87,648
Total Proved	8,321	123,752	28,946	91,956
Probable Additional	6,051	109,079	24,231	83,758
Total Proved plus Probable	14,372	232,831	53,177	175,714

Future development capital expenditures of \$175.7 million included in the proved plus probable reserve evaluation is expected to be spent as follows: \$80.0 million in 2009 (includes 23.7 net horizontal wells and 4.8 net vertical wells), \$89.5 million in 2010 (includes 25.7 net horizontal wells and 10.4 net vertical wells), and \$6.2 million in 2011 (includes 1.0 net horizontal well and 1.4 net vertical wells).

The Company increased the net present value of proved plus probable reserves, discounted at 10% before tax, to \$891.0 million, up 65% from \$538.7 million at December 31, 2007. The reserve life index ("RLI") remains strong at 12.1 years compared to 10.0 years at December 31, 2007. RLI is calculated using actual fourth quarter production. The following table is a net present value summary (before tax) as at December 31, 2008:

NET PRESENT VALUE SUMMARY (BEFORE TAX)				
	Undiscounted [\$000's]	NPV 5% BT [\$000's]	NPV 10% BT [\$000's]	NPV 15% BT [\$000's]
Proved Developed Producing	635,675	494,583	409,074	351,209
Proved Developed Non-producing	29,577	24,100	20,157	17,206
Proved Undeveloped	214,276	140,276	98,117	71,207
Total Proved	879,528	658,959	527,348	439,622
Probable Additional	871,359	525,525	363,700	272,089
Total Proved plus Probable	1,750,887	1,184,484	891,048	711,711

The following table is a net present value summary (after tax) as at December 31, 2008:

NET PRESENT VALUE SUMMARY (AFTER TAX)				
	Undiscounted [\$000's]	NPV 5% AT [\$000's]	NPV 10% AT [\$000's]	NPV 15% AT [\$000's]
Proved Developed Producing	564,825	443,640	370,000	319,949
Proved Developed Non-producing	21,789	17,546	14,510	12,245
Proved Undeveloped	159,543	101,850	68,782	47,603
Total Proved	746,157	563,036	453,292	379,797
Probable Additional	650,105	388,784	266,194	196,699
Total Proved plus Probable	1,396,262	951,820	719,486	576,496

Sproule is forecasting WTI Cushing crude oil prices to average US\$71.65 per bbl over the next five years, 7% higher than the average price of US\$67.17 per bbl over the past five years. Sproule's forecast for NYMEX Henry Hub natural gas prices is to average US\$7.88 per mmbtu over the 2009 to 2013 period, an increase of 4% from the average price of US\$7.58 per mmbtu during the 2004 to 2008 period. The following table summarizes Sproule's forecasted future commodity prices for the next five years, as at December 31, 2008:

FUTURE COMMODITY PRICE FORECAST				
	WTI Cushing Crude Oil [US\$/BBL]	NYMEX HH Natural Gas [US\$/MMBTU]	AECO-C Natural Gas [\$/GJ]	USD/CAD Exchange [US\$]
2009	53.73	6.30	6.47	0.800
2010	63.41	7.32	7.17	0.850
2011	69.53	7.56	7.43	0.850
2012	79.59	8.49	7.95	0.900
2013	92.01	9.74	8.72	0.950
Five Year Average	71.65	7.88	7.55	0.870

During 2008, the Company's unaudited capital expenditures, net of dispositions, resulted in proved plus probable reserve additions of 23.5 million (10.3 million in 2007) BOE, resulting in finding, development and acquisition ("FD&A") costs of \$7.82 (\$17.47 in 2007) per BOE, before future development capital and \$12.24 (\$19.27 in 2007) per BOE, including future development capital.

The recycle ratio is a measure for evaluating the effectiveness of a company's re-investment program. The ratio measures the efficiency of capital investment. It accomplishes this by comparing the operating netback per BOE to that years' reserve FD&A cost per BOE. Since incorporation, Celtic has successfully achieved a recycle ratio of 2.3 times on a proved plus probable basis. In 2008, the recycle ratio was 2.9 times. The following table provides detailed calculations relating to FD&A costs and recycle ratios:

FINDING, DEVELOPMENT AND ACQUISITION COSTS	Year ended December 31, 2008	Year ended December 31, 2007	Year ended December 31, 2006	Cumulative since incorporation
PROVED RESERVES				
Capital expenditures [\$000's] [unaudited]	183,478	179,789	164,050	787,875
Change in future capital costs required to develop reserves [\$000's]	54,106	6,998	18,811	91,956
Total capital costs [\$000's]	237,584	186,787	182,861	879,831
Reserve additions, net [MBOE]	12,227	8,708	6,010	41,727
FD&A cost, before future capital [\$ /BOE]	15.01	20.65	27.30	18.88
FD&A cost, including future capital [\$ /BOE]	19.43	21.45	30.43	21.09
Operating netback [\$ /BOE] [unaudited]	34.95	32.24	38.81	34.00
Recycle ratio – proved	1.8	1.5	1.3	1.6
PROVED PLUS PROBABLE RESERVES				
Capital expenditures [\$000's] [unaudited]	183,478	179,789	164,050	787,875
Change in future capital costs required to develop reserves [\$000's]	103,608	18,508	31,690	175,714
Total capital costs [\$000's]	287,086	198,297	195,740	963,589
Reserve additions, net [MBOE]	23,457	10,292	10,005	65,959
FD&A cost, before future capital [\$ /BOE]	7.82	17.47	16.40	11.94
FD&A cost, including future capital [\$ /BOE]	12.24	19.27	19.56	14.61
Operating netback [\$ /BOE] [unaudited]	34.95	32.24	38.81	34.00
Recycle ratio – proved plus probable	2.9	1.7	2.0	2.3

Celtic's 2008 capital investment program resulted in net reserve additions that replaced 2008 production by a factor of 3.0 (3.0 in 2007) times on a proved basis and 5.8 (3.6 in 2007) times on a proved plus probable basis.

GREATER KAYBOB AREA

Celtic's most active drilling area is in the Greater Kaybob region of west central Alberta where the Company has been successfully developing several Montney liquids-rich natural gas pools. The Company also has opportunities in other formations in the Greater Kaybob area including the Beaverhill Lake, Nordegg and Bluesky. In the December 31, 2008 reserve evaluation, Sproule has assigned reserves to 2.6 net un-drilled wells in the Bluesky formation and 2.0 net un-drilled wells in the Nordegg formation. Reserves were not assigned to future Nordegg wells that are pending commingling approval. The following table outlines the Montney reserves included in the December 31, 2008 reserve evaluation:

KAYBOB MONTNEY RESERVES				
	Kaybob South	KayFox	Lower Kaybob South & Chickadee	Total Greater Kaybob
Proved Reserves				
Natural Gas [MMCF]	44,082	31,341	1,811	77,234
Combined Gas and NGLs [MBOE]	8,647	6,112	354	15,113
Net Present Value 10% BT [\$000's]	158,451	88,198	8,163	254,812
Number of net vertical wells – producing	17.5	3.6	0.8	21.9
Number of net horizontal well – producing	13.5	9.8	2.2	25.5
Number of net horizontal wells – locations	10.8	12.7	0.0	23.5
Proved plus Probable Reserves				
Natural Gas [MMCF]	85,657	65,886	7,344	158,887
Combined Gas and NGLs [MBOE]	16,803	12,846	1,435	31,084
Net Present Value 10% BT [\$000's]	279,440	188,270	18,570	486,280
Number of net vertical wells – producing	17.5	3.6	0.8	21.9
Number of net horizontal well – producing	13.5	9.8	2.2	25.5
Number of net horizontal wells – locations	21.8	20.2	4.1	46.1

NET ASSET VALUE

Celtic's net asset value at December 31, 2008, discounting the present value of reserves at 10% before tax, increased to \$842.7 million (\$941.3 million using an 8% discount rate, before tax), up 76% from \$477.9 million at December 31, 2007. On a per share basis, net asset value increased by 60% to \$18.92 per share (\$21.13 per share using an 8% discount rate, before tax).

The present value of petroleum and natural gas ("P&NG") reserves were determined by Sproule in their year-end evaluation report. Undeveloped land at December 31, 2008 was valued at an average price of \$196 per acre. The components of net asset value are summarized in the following table:

NET ASSET VALUE			
	December 31, 2008 Forecast Prices 8% Discount Rate [\$000's]	December 31, 2008 Forecast Prices 10% Discount Rate [\$000's]	December 31, 2007 Forecast Prices 10% Discount Rate [\$000's]
Present value of P&NG reserves, discounted, before tax	989,600	891,048	538,719
Undeveloped land	48,339	48,339	45,195
Bank debt, net of working capital [2008 is unaudited]	(138,550)	(138,550)	(136,249)
Proceeds from exercise of stock options	41,865	41,865	30,197
Net asset value	941,254	842,702	477,862
Diluted common shares outstanding [000's]	44,536	44,536	40,492
Net asset value per share [\$/SHARE]	21.13	18.92	11.80

Celtic is excited about the Company's future growth prospects with a large portfolio of development drilling inventory at Kaybob, Celtic expects to continue to add long-life and high netback reserves over the next several years.

COMMON SHARE INFORMATION

The Company is authorized to issue an unlimited number of common shares and an unlimited number of preferred shares. As at December 31, 2008, there were 41.3 million common shares outstanding. There were no preferred shares outstanding. As at December 31, 2008, directors, employees and certain consultants have been granted options to purchase 3.2 million common shares of the Company at an average exercise price of \$12.96 per share. Detailed information regarding the Company's stock options outstanding is contained in the notes to the financial statements. The Company's common shares trade on the Toronto Stock Exchange ("TSX") under the symbol "CLT".

ADVISORY REGARDING FORWARD-LOOKING STATEMENTS

Certain information with respect to Celtic contained herein, including management's assessment of future plans and operations, contains forward-looking statements. These forward-looking statements are based on assumptions and are subject to numerous risks and uncertainties, certain of which are beyond Celtic's control, including the impact of general economic conditions, industry conditions, volatility of commodity prices, currency exchange rate fluctuations, imprecision of reserve estimates, environmental risks, competition from other explorers, stock market volatility and ability to access sufficient capital. As a result, Celtic's actual results, performance or achievement could differ materially from those expressed in, or implied by, these forward-looking statements and, accordingly, no assurance can be given that any events anticipated by the forward-looking statements will transpire or occur. In addition, the reader is cautioned that historical results are not necessarily indicative of future performance.

MEASUREMENTS

All dollar amounts are referenced in Canadian dollars, except when noted otherwise. Where amounts are expressed on a barrel of oil equivalent ("BOE") basis, natural gas volumes have been converted to oil equivalence at six thousand cubic feet per barrel and sulphur volumes have been converted to oil equivalence at 0.6 long tons per barrel. The term BOE may be misleading, particularly if used in isolation. A BOE conversion ratio of six thousand cubic feet per barrel is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. References to oil in this discussion include crude oil and natural gas liquids ("NGLs"). NGLs include condensate, propane, butane and ethane. References to gas in this discussion include natural gas and sulphur.

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