
Unlocking Canada's oil and gas industry – is Canada becoming an energy superpower?



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Leader's message



Reynold Tetzlaff

In 1959, the Borden Royal Commission on Energy—Oil and Gas recommended that growing crude oil production from Western Canada was best marketed in the United States. The Montreal refinery market—which some western producers at the time coveted dearly—was not accessible by pipeline and could be best, and most economically, served by imported crude the commission decided.

That recommendation, since amended, was accepted by the federal government of the day, and has set Canada on a path it has followed ever since as a key supplier of hydrocarbons to the United States.

In the 54 years since the Borden commission, a lot has changed in the global oil and gas markets, but Canada's customer base has not. It remains tied tightly to the US for oil and gas market opportunities, even as domestic US production grows and demand wanes.

That paradigm shift in fundamentals has left Canada with little option but to widen its export markets, setting its sights on other countries including China, Japan and India for future opportunities. In doing so, discussion has surfaced as to whether Canada has the potential—by virtue of its massive endowments of hydrocarbon riches, including bitumen from the oil sands, tight oil and shale gas—to become an energy superpower.

An energy superpower—and there are only a few today—can be defined by a country's ability to excel in various areas such as price realization, external geopolitical influence, efficient domestic policy environment and technology capacity.

A key prerequisite is a vast resource base. With the 3rd largest accumulation of proved oil reserves in the world, Canada's resource base is world class. According to the most recent statistics from the US Energy Information Administration, Canada, with 174 billion barrels of proved reserves, is behind only Saudi Arabia at 267.9 billion barrels and Venezuela at 297.6 billion barrels.

On the technology side, we are recognized as a global leader in developing oil sands, drilling, IT and other expertise to enhance recoveries and improve efficiencies. Developed in Western Canada, this knowledge continues to grow and expand around the world.

But Canadian producers remain price-takers on the global oil market. Our historic ties to the United States mean that our oil is priced against the North American benchmark, rather than at the higher global benchmark, while refineries in eastern Canada, shut out from significant access to domestic crude, have had to pay global prices for like-quality crudes up to \$40 a barrel higher.

On the gas side, Canada is the 4th largest producer of natural gas. However, our ability to achieve targeted volumes, along with our resource potential to become a key global liquids natural gas exporter and dominant supplier in the critical Pacific Basin market, will largely depend on government and policy initiatives to address disputes over pipelines and obtain the highly sought after long term gas contracts.

Despite market access challenges that continue to diminish our country's ability to monetize on opportunities, Canada has the fundamentals to be a strong international player. Government interaction is becoming more important in a global economy and for countries with national oil companies, government to government relationships are critical.

Our government plays a role in improving our country's competitiveness by building strong alignments and relationships around the globe and by undertaking initiatives to make our domestic regulatory environment more efficient. To achieve our full potential, leadership and passion will be required from all stakeholders, including the Canadian government, in hopes that future generations will benefit from the decisions we make today.

As part of this year's Canadian Energy Report, we asked global industry policy analysts and leaders to provide their views on Canada's potential and progress toward becoming an energy superpower. For more information on our Energy Visions program or our comprehensive suite of professional services, visit www.pwc.com/ca/energyvisions.

A handwritten signature in black ink that reads "Reynold".

Reynold Tetzlaff
Canadian National Energy Leader
PwC

Unlocking Canada's oil and gas industry

Over the last few years, Canada's status as a strong global player on the oil and gas stage has risen significantly. The ongoing development of the oil sands and the explosive growth of shale gas and tight oil productive capacity are already influencing the shape of the oil and gas market in North America. Canada's production is poised to reach approximately 6.5 million barrels a day by 2025.

And recently, there has been discussion of Canada's potential to achieve not just "a major North American producer status" but to become a global energy superpower.

In a speech to the Canada-UK Chamber of Commerce in London in July 2006, Prime Minister Stephen Harper referred to Canada as the "emerging energy superpower" his government intended to build. Harper and Joe Oliver, Canada's Minister of Natural Resources, have repeated the goal several times since then, and most recently, in April 2012, Harper referred to Canada as a "natural resources powerhouse."

The numbers suggest we have the potential to become a superpower. We rank 3rd in global reserves in terms of our strength in liquids and we have the technology to extract conventional and unconventional oil and gas to get it to global markets.

But having the resources and the physical ability to market them is only part of the equation to being an energy superpower. It requires the ability to utilize your petro-strength to influence geopolitical events, thus having some influence over global hydrocarbon markets and it requires the appropriate regulatory and environmental oversight systems in place to ensure longevity and sustainability. Finally, it requires a fiscal system that encourages investment, and enough financial capital and labour expertise to make it all happen.

The Fraser Institute, in a March Studies in Energy Policy report entitled *Canada as an emerging superproducer*, argues that Canada, while amply endowed with resources such as oil, natural gas, uranium and hydroelectricity, does not exercise the right kind of control over those resources to be considered a superpower.

This is in contrast to the world's current energy superpowers — major oil companies and OPEC (Organization of the Petroleum Exporting Countries), who historically have used their control over much of the world's oil production to influence the price of oil, the report says. "For a country to be an energy superpower in the political sense — that is, to be able to use its status as a major energy producer to achieve political objectives — Russian experience has indicated that a country must be able to

control access to supplies sufficiently to be a price setter. Canada, without ownership and control of its energy resources, or the ability or the mandate to exercise market power for economic advantage in our principal export markets for these resources, is not in a position to become an energy superpower."

Other experts agree, at this time, Canada simply can't wield the kind of influence needed to qualify as an energy superpower. "Before Canada can claim superpower

status, it needs to secure access to several growing hydrocarbon markets instead of relying on a single shrinking market that is also expanding its domestic supply of lower cost, higher quality oil," says Robert Skinner, an Independent Strategy Adviser based in Calgary and interim Executive Director of the Canada School of Energy and Environment. "And that market — a real superpower ten times our size, might find our self-acclaimed superpower status pretentious if not a veiled threat."



Pillars to superpower status



It is generally agreed that attaining superpower status rests on the ability of a particular producing country to earn what Reynold Tetzlaff, PwC Canada's National Energy Leader, calls the "pillars of power and prosperity."

The list, he says, "isn't too long" and includes tangible items such as reserves and resources to ensure long-term supply capability and sufficient production supplies to meet export markets after domestic needs are met. Both of which have a checkmark on Canada's "has" list. But Canada still has a ways to go to get access to a variety of markets, sufficient capital and enough skilled workers. We also have to look at continuing technological developments to keep pace with maturing reservoirs, declining recovery factors and increasingly unconventional production methods. Other less tangible pillars include appropriate regulatory and environmental oversight, and a fiscal system that encourages and promotes investment in a stable environment.

The four pillars identified by Tetzlaff include: price realization, external geopolitical influence, technological capacity and a stable domestic policy environment. "Taken together, these pillars suggest the ability to exert geopolitical influence on a global scale, which is one of the most important pillars to achieving superpower status," he says.

Price realization

Without access to broad global markets, Canadian producers are currently unable to secure optimum prices for their output. In fact, most Canadian crude suffers from a double discount. Restricted access to key refining markets along the US Gulf Coast forces Canadian producers to accept a discount to the benchmark North American crude West Texas Intermediate, which is also traded at a discount to the global benchmark, Brent blend from the North Sea.

But given the right circumstances Canada could become a major player on international crude markets, if not an energy superpower. To achieve this, it would require the removal of bottlenecks between Alberta and the US Gulf Coast, increased capacity to move synthetic crude and bitumen to the west coast for export to Asian markets and a west-to-east pipeline corridor to facilitate exports to Europe and other countries.

Ed Morse, Managing Director and Global Head of Commodities at Citi Research in New York, holds the opinion that Canada's presence on global markets could be, at the very least, transformational.

In a February 2013 research report titled *Energy 2020: Independence Day*, which examines the global ripple effects of the North American "energy revolution," Morse points out that Canadian production is expected to double over the next decade to some 6.5 million barrels per day. This could dramatically underpin increased exports to Europe, where Canadian crude would compete with oil from the Urals and give Canadian producers much higher netbacks than are currently available given existing north-south bottlenecks.

"Eventually, once pipelines to the Pacific are in place, Canadian producers should become significant suppliers of crude oil to the fastest growing market in the world — the Pacific Basin," the Citi report states. It adds that the logical stream to Asia should be the growing volumes of synthetic crude, while heavier streams like Western Canada Select should be targeted to the Gulf Coast refinery market, which has been designed to accept the heavier and sour grades.

With a million barrels a day or more of Canadian synthetic crude moving into markets in China, Japan, Korea, Singapore and elsewhere in the Pacific Basin, that stream could take on the qualities of a new benchmark, the report suggests.

"From a resource perspective, Canada can become the price setter for Pacific Basin petroleum, but that depends in part on whether the permitting system will facilitate the export of oil to the Pacific Basin, how the oil is sold and what the volumes will be," Morse says. "Canadian supplies should facilitate a lowering of global oil prices and could enable a Canadian benchmark to succeed, especially if the benchmark becomes the basis of an exchange traded contract."

Many hope President Barack Obama will eventually approve the Keystone XL project. If approved the pipeline will help Canadian producers achieve netbacks somewhat closer to the North American average than what they have been experiencing, if not the full global price which was hovering at the US\$100 per barrel mark in mid-April.

"But just having Keystone, or any other continental project aimed to the Gulf Coast in place won't be enough," says Ted Morton, a former Alberta energy minister and currently an Executive Fellow at the School of Public Policy at the University of Calgary.

“While approval and completion of Keystone XL is necessary for Canadian producers to realize full North American and global prices, it is not sufficient,” Morton says. “The US market is rapidly being redefined by growing supply and shrinking demand, and Canada’s path to energy superpower status depends on weaning itself off dependence on the US market and expanding both oil and natural gas exports to fast-growing Asian markets.”

Securing broad market access for Canadian crude oil beyond the United States has not proved as easy as most developers thought and projects such as the Northern Gateway to Kitimat pipeline have yet to win approval.

In the meantime, other projects aimed at moving lighter volumes of Canadian

crude to available markets in the northeast United States and eastern Canada, and to export to markets via tanker deliveries from East Coast ports, are being considered and, in some cases, are underway.

Kinder Morgan wants to double the capacity of its existing Trans Mountain crude system between Edmonton and British Columbia’s Lower Mainland, but environmental opposition has ramped up.

TransCanada is gaining momentum and gathering interest in its Energy East project — about 3,000 kilometres of its underutilized natural gas Mainline system between Western Canada and Montreal to be converted to oil service. An additional 1,400 kilometres of new oil pipeline

would be built to reach refinery markets in Atlantic Canada and provide access to export markets.

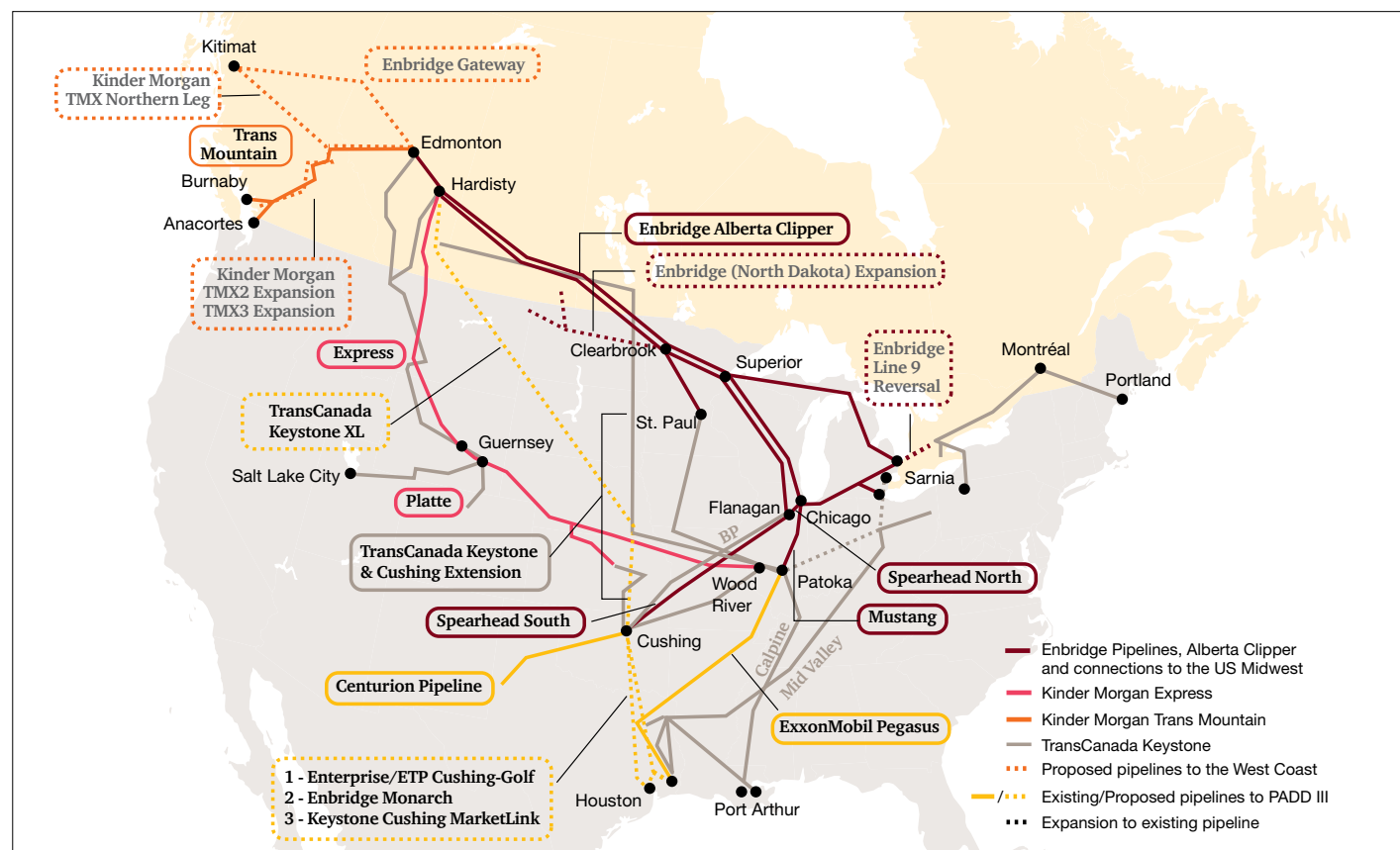
Michael Levi, a David M. Rubenstein Senior Fellow for Energy and the Environment at the Council on Foreign Relations (CFR), says Canada will continue to face challenges on any future pipeline projects, even if Keystone XL is ultimately approved.

“This will remain true even if Canada adopts more stringent carbon policies — US opposition to Keystone XL is less about its carbon intensity and more about overall production,” he says. “Moreover, to the extent that the United States chooses not to liberalize oil exports, Canada will be pinned in too.”

Figure 1

Canada & US Crude Oil Pipelines

Source: CAPP



External geopolitical influence

In recent years, Canada's ability to become a major global producer has been the subject of debate, led initially by a report written over the summer of 2007 by Annette Hester at the request of the Canadian Defense & Foreign Affairs Institute.

At the time, Hester was a senior associate at the Center for Strategic and International Studies in Washington, DC. However, even she was unable to pin down exactly what Harper meant by promoting Canada as an energy superpower.

"Disconcertedly," she wrote, "there is no clear definition of what it means to be an energy superpower. Nor has there been a discussion of what this power would be used for, or even if Canadians would enjoy such status."

There are but a handful of "superpowers," Hester found — notably the United States, China and, until the fall of the Soviet Union, Russia. Similarly, the list of "energy superpowers" is also short: the US, for the military protection it brings to global crude oil supply channels; Saudi Arabia, as the largest producer within the OPEC cartel; perhaps one day Russia, for its geography and the autocratic bent of its leadership.

After examining the established definitions of superpowers and drawing upon the historical evolution of energy provision to infer measures by which energy superpower status could be measured, Hester concluded that Canada simply doesn't qualify as an energy superpower, despite its abundant energy resources.

"Canada's relatively small production — less than three million barrels a day — defines the country as a price-taker, not a price setter," Hester said in her report.

Robert Johnston, Director of Eurasia Group's Global Energy and Natural Resources practice, agrees with that assessment but maintains Canada still has a level of influence among other producing and exporting nations.



"Canada is a geopolitical middle power, which should constrain the impact of our emerging energy superpower status relative to countries like China, the US and Russia," he says. "Still, like Brazil, Australia and Norway (our middle power peers) we should be able to link energy trade and investment with other aspects of our economic agenda."

On the other side, Michael Levi sees a certain unwillingness in Canada to exert the kind of influence that goes with superpower status and to directly tie its oil and gas activities to other national actions and goals. "For example, Canada will not invest in spare production capacity in order to exert influence similar to Saudi Arabia's on world markets," he says.

There really are only two levers Canada could use on a global stage, Levi notes. The first is closely tying opportunities to invest in Canada's resources to other countries behaviour, whether this means using its new restrictions on state-owned entities investing in the oil sands to do so, remains to be seen. The second lever would involve making a deliberate decision to tie Canadian LNG exports to North American gas prices, which would steer the world towards a more market-based gas trade.

"The Canadian government appears far more likely to allow pricing to be set by individual companies, many of which will want to sell natural gas at overseas, rather than at Henry Hub prices," he says.

Technological capacity

New technology has greatly influenced rapid growth in unconventional oil and gas supplies in North America over the last few years. As a result, resources identified long ago are now being exploited and produced economically and efficiently.

The evolution of long-reach horizontal well drilling technology and the ability to apply fracture stimulation techniques changed the game for producers. No longer was it necessary to prick a reservoir with as many as 16 wells per section. Horizontal drilling and multi-stage fracking dramatically reduced the environmental footprint of drilling large reservoirs, cut the time needed to deplete the reservoir and significantly improved the economics of developing shale and tight sand formations.

The impact on the drilling and support industries in Canada has been significant. Before horizontal drilling, the health of the industry in Canada could be determined

from looking at the well count: more wells being drilled meant a healthy, vibrant industry. If the count fell year-over-year, it was usually because commodity prices or demand had fallen, leading producers to leave the resource in the ground to await better times.

With horizontal drilling, however, the well count no longer holds the same importance. In 2012, only 11,552 wells were drilled in Western Canada, down from 16,086 the previous year. This marked the lowest number since the slump of 2009 pushed completions below the 10,000 mark.

These days, drilling has become a much more complex business. A more accurate measure of the health of the industry can be found in rig operating days. Last year, the well count fell by more than 28%, but the number of rig operating days dropped by only 14% to 124,617 from 145,166 in 2011, according to the Canadian Association of Oilwell Drilling Contractors.

In the last few years, vertical drilling has all but disappeared from Western Canada.

In 2012, less than 1,600 vertical wells were drilled across the Western Canadian Sedimentary Basin, compared to nearly 12,000 in 2007. At the same time, the number of horizontal wells have climbed steadily, from 2,500 in 2007 to nearly 8,000 last year.

“There is no reason to think that the rapid progress of the past decade will not be replicated in the coming decades,” Morton says. “Whether pioneered in Houston or Leduc, further improvements in horizontal drilling and multi-stage fracking are guaranteed, both with respect to recovery rates and environmental outcomes.”

“The efficacy of most technology is location-specific. It’s hard to envision any particular technology offering the kind of global impact that would infer ‘superpower’ status on its source nation,” Levi says. “Canada will continue to contribute to global energy technology innovation, as it has in the past, but there is little reason to expect an outsized impact that would lead to something one would call ‘superpower’ status.”

Figure 2

Horizontal wells – Canada January – March

Source: Nickle’s Data Central

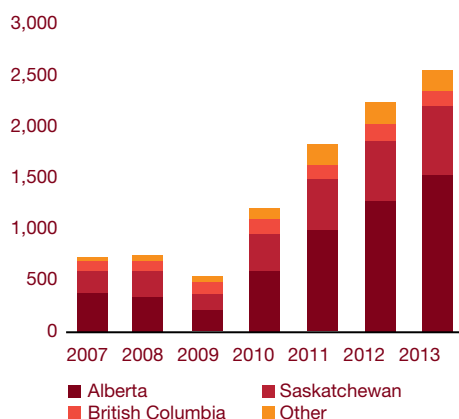
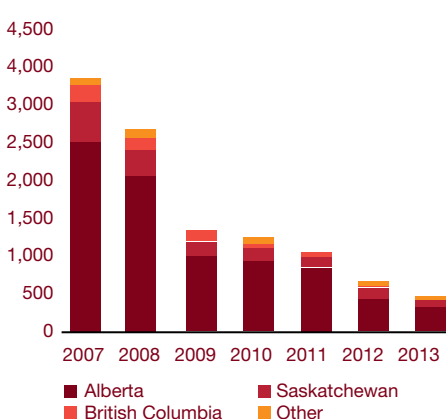


Figure 3

Vertical wells – Canada January – March

Source: Nickle’s Data Central



Among the world's major oil-producing nations, Canada has one of the most stable jurisdictions to do business in. Contract sanctity is paramount, government interference is minimal at the operational level and regulatory controls are robust yet fair.

Stable domestic policy environment

Among the world's major oil-producing nations, Canada has one of the most stable jurisdictions to do business in. Contract sanctity is paramount, government interference is minimal at the operational level and regulatory controls are robust yet fair.

But stability, Robert Skinner notes, is a relative term. The Liberal Party's return to power in the British Columbia provincial election earlier this month calms some concerns associated with Alberta producers reaching Asian markets, but much work remains to be done to ensure pipeline access to the west coast. A federal election, which must be held by the fall of 2015, is certain to carry resource undertones, pending resolution of the Keystone XL, Trans Mountain and Northern Gateway issues. "When resource development is an election issue, it signals uncertainty and risk for investors," Skinner notes.

Perhaps one of the biggest roadblocks to achieving superpower status is the underlying structure of the oil and gas industry in Canada. There is regulatory division over the industry with the provinces having resource ownership and the federal government holding the regulatory levers for exports. The fact that we struggle to achieve consensus on whether a national energy strategy is important does not bode well for the kind of pan-national cooperation needed to become a forceful presence on the global stage.

"Canada's energy wars in the 1970s revealed the deep regional fault-lines based on the very different energy interests of the provinces," Morton says.

"The energy-producing provinces, mainly Alberta and Saskatchewan, benefit from higher prices. The energy consuming provinces, especially the industrial heartland in Ontario and Quebec, benefit from lower prices."

Today, those provincial differences still exist and largely reflect the different contributions that each make to Canada's energy portfolio. In the prairies, coal remains the key fuel for power generation, although gas is making inroads, while Quebec and British Columbia are key sources of hydroelectric generation. Ontario is a key nuclear province, and is in the process of swapping out its remaining coal-fired generating plants for natural gas facilities.

Where Canada stands



Canada holds the potential to become an energy superpower. The resources, both oil and natural gas, exist in the volumes required to exert influence on the global stage, and the international producing community recognizes this potential.

“Major international oil companies, and indeed national oil companies, all have equity positions in our conventional and unconventional production,” Tetzlaff notes. “But is this enough to create new markets, hasten pipeline construction and realize world prices?”

The political will might be there as well, given Prime Minister Harper’s repeated references to the energy superpower his administration hopes to build. The question is: does that will spread to other jurisdictions and to the industry itself?

Resource development in Canada remains a matter of provincial jurisdiction, Tetzlaff notes, but there is no question that a substantial amount of the resource rent in this country filters through the rest of Canada in terms of contracts for goods and services and equalization payments.

“Although natural resources are under provincial jurisdiction, oil and gas is a national matter,” he says. “We need to work together to build our energy presence on the world stage and as a nation decide where we want to stand in the pecking order.”

PwC Top 100 highlights

Financial

Challenged by weak natural gas prices and crude oil that fetched significantly less in North America than it did on global markets, Canadian oil and gas producers in the PwC Top 100 endured a 44% drop in net income in 2012, at \$10.2 billion versus \$18.3 billion in 2011.

Gross revenues generated by the group slipped to \$106.6 billion from \$108.1 billion, with those in the top 20 taking most of the hit, showing revenues, at \$93.6 billion, a 10.8% decrease from 2011.

Cash flow from operations dipped slightly, to \$51.3 billion from \$52.6 billion, but capital expenditures climbed a little more than 8%, to \$63.1 billion from \$58.2 billion. This is reflective of ongoing investments in the oil sands and higher drilling costs associated with long reach horizontal wells and multi-stage fracking.

Market capitalization for the group dipped 5.1%, to \$316.3 billion from \$333.2 billion in 2011.

Operational

Led by a surge in light tight oil, shale oil and natural gas liquids, production by the PwC Top 100 producers rose in 2012, to nearly 5 million barrels of oil equivalent per day from about 4.7 million barrels of oil equivalent per day in 2011. Oil and liquids production averaged just over 3 million barrels per day, while natural gas output averaged about 11.4 billion cubic feet per day.

Proven reserves increased to 28.6 billion barrels of oil equivalent from 26.5 billion barrels of oil equivalent, while probable reserves edged slightly higher, to 19.2 billion barrels of oil equivalent from 18.6 billion barrels of oil equivalent in 2011.

Financial statistics

Exploration and production companies

PwC's Top 100

Company ¹⁴	Gross Revenues (\$ 000's) 2012 ⁴	Gross Revenues (\$ 000's) 2011 ⁴	Change (%)	Net Income/ (Loss) (\$ 000's) 2012	Net Income/ (Loss) (\$ 000's) 2011	Change (%)	EPS 2012 ⁵	EPS 2011 ⁵	Cash Flow from Ops. (\$ 000's) 2012	Cash Flow from Ops. (\$ 000's) 2011	CFPS 2012 ⁶	CFPS 2011 ⁶
Suncor Energy Inc.	17,978,000	18,787,000	(4.31%)	2,783,000	4,304,000	(35.34%)	1.80	2.74	8,846,000	9,988,000	5.72	6.36
Canadian Natural Resources Limited	16,179,000	15,497,000	4.40%	1,892,000	2,643,000	(28.41%)	1.72	2.41	6,209,000	6,243,000	5.64	5.69
Imperial Oil Limited ★ ⁷	8,784,000	9,738,000	(9.80%)	3,766,000	3,371,000	11.72%	4.44	3.98	4,680,000	4,489,000	5.52	5.30
Talisman Energy Inc. ³	7,226,398	8,099,770	(10.78%)	131,952	767,080	(82.80%)	0.12	0.75	2,715,022	2,779,660	2.47	2.72
Husky Energy Inc.	6,547,000	7,519,000	(12.93%)	2,022,000	2,224,000	(9.08%)	2.06	2.40	5,189,000	5,092,000	5.29	5.49
Cenovus Energy Inc.	6,156,000	5,619,000	9.56%	993,000	1,478,000	(32.81%)	1.31	1.96	3,420,000	3,273,000	4.51	4.34
Encana Corporation ★ ^{3,7}	6,063,816	6,709,938	(9.63%)	(2,792,994)	4,943	(56609.75%)	(3.79)	0.01	3,105,881	3,881,840	4.21	7.76
Canadian Oil Sands Limited	3,905,000	4,182,000	(6.62%)	981,000	1,144,000	(14.25%)	2.02	2.36	1,864,000	1,958,000	3.84	4.04
Pacific Rubiales Energy Corp. ^{3,7}	3,883,363	3,341,940	16.20%	527,539	547,961	(3.73%)	1.79	2.04	1,802,086	1,205,038	6.11	4.49
Penn West Petroleum Ltd.	3,235,000	3,667,000	(11.78%)	174,000	638,000	(72.73%)	0.37	1.37	1,193,000	1,407,000	2.54	3.02
Crescent Point Energy Corp	2,694,994	2,191,189	22.99%	190,653	201,134	(5.21%)	0.58	0.73	1,543,943	1,322,971	4.70	4.80
Pengrowth Energy Corporation	1,480,267	1,453,735	1.83%	12,684	84,532	(85.00%)	0.03	0.25	554,089	693,083	1.31	2.05
ARC Resources Ltd.	1,389,400	1,438,200	(3.39%)	139,200	287,000	(51.50%)	0.47	1.00	703,500	902,700	2.38	3.15
Enerplus Corporation	1,365,542	1,363,726	0.13%	(155,734)	109,437	(242.30%)	(0.80)	0.61	535,077	623,440	2.75	3.48
Baytex Energy Corp.	1,215,606	1,305,814	(6.91%)	258,631	217,432	18.95%	2.16	1.88	577,305	571,860	4.82	4.94
Harvest Operations Corp.	1,193,500	1,286,900	(7.26%)	(720,100)	(104,700)	(587.77%)	INA	INA	442,800	560,500	INA	INA
PetroBakken Energy Ltd.	1,104,983	1,195,476	(7.57%)	(97,580)	(7,629)	(1179.07%)	(0.87)	(0.06)	620,954	721,302	5.54	5.67
Petrominerales Ltd. ³	1,098,704	1,404,263	(21.76%)	140,150	487,528	(71.25%)	1.51	4.77	717,242	773,897	7.72	7.58
Vermilion Energy Inc.	1,083,103	1,031,570	5.00%	190,622	142,821	33.47%	1.94	1.57	496,580	447,092	5.05	4.91
MEG Energy Corp.	1,029,797	1,021,036	0.86%	52,569	63,837	(17.65%)	0.27	0.33	240,824	314,302	1.24	1.62
Bonavista Energy Corporation	832,491	1,044,414	(20.29%)	64,202	137,184	(53.20%)	0.37	0.85	407,481	567,166	2.35	3.51
Coastal Energy Company ^{3,8}	746,584	343,783	117.17%	227,866	48,081	373.92%	1.98	0.42	381,323	186,676	3.31	1.61
Parex Resources Inc. ³	523,326	169,202	209.29%	39,908	15,455	158.21%	0.37	0.17	254,425	118,870	2.36	1.29
Trilogy Energy Corp.	455,697	380,998	19.61%	(12,133)	17,415	(169.67%)	(0.10)	0.15	235,351	215,753	1.94	1.86
Tourmaline Oil Corp	441,888	342,820	28.90%	15,519	42,681	(63.64%)	0.10	0.29	273,477	228,421	1.76	1.55
Legacy Oil + Gas Inc.	435,388	359,820	21.00%	(2,577)	19,167	(113.44%)	(0.02)	0.14	238,877	168,188	1.85	1.23
Bankers Petroleum Ltd. ³	431,982	336,009	28.56%	34,401	35,582	(3.32%)	0.14	0.15	161,688	130,677	0.64	0.55
Crew Energy Inc.	417,763	388,166	7.62%	21,542	(130,162)	116.55%	0.18	(1.28)	213,591	153,429	1.78	1.51
Connacher Oil and Gas Limited	384,946	430,029	(10.48%)	(84,469)	(114,105)	25.97%	(0.19)	(0.26)	43,468	142,423	0.10	0.32
Peyto Exploration & Development Corp.	357,734	387,240	(7.62%)	93,951	128,183	(26.71%)	0.67	0.96	284,309	289,995	2.03	2.17
TransGlobe Energy Corporation ^{3,7}	317,552	244,905	29.66%	87,702	80,456	9.01%	1.20	1.11	93,958	62,898	1.29	0.87
Whitecap Resources Inc.	305,770	137,432	122.49%	52,471	25,512	105.67%	0.46	0.40	173,535	79,008	1.52	1.24
Twin Butte Energy Ltd.	304,729	146,577	107.90%	31,530	(19,021)	265.76%	0.15	(0.14)	131,767	63,121	0.63	0.46
Aurora Oil & Gas Limited ³	294,830	74,216	297.26%	58,825	30,232	94.58%	0.14	0.07	144,070	34,545	0.33	0.08
Long Run Exploration Ltd.	276,605	142,822	93.67%	(42,652)	(52,667)	19.02%	(0.47)	(0.83)	136,036	73,798	1.50	1.16
Advantage Oil & Gas Ltd. ⁸	268,905	355,288	(24.31%)	(89,125)	(152,772)	41.66%	(0.53)	(0.92)	106,956	218,181	0.64	1.31
Birchcliff Energy Ltd.	257,206	264,587	(2.79%)	13,196	34,454	(61.70%)	0.08	0.27	108,229	142,897	0.66	1.12
NuVista Energy Ltd.	242,012	369,234	(34.46%)	(195,200)	(143,800)	(35.74%)	(1.93)	(1.47)	58,521	160,268	0.58	1.64
Bellatrix Exploration Ltd.	217,138	200,187	8.47%	27,771	(5,949)	566.82%	0.26	(0.06)	109,328	98,192	1.02	0.99
Pace Oil & Gas Ltd.	212,353	250,279	(15.15%)	(152,991)	16,707	(1015.73%)	(3.25)	0.35	64,038	91,007	1.36	1.91
BlackPearl Resources Inc.	204,525	179,443	13.98%	45	18,911	(99.76%)	0.00	0.07	79,862	75,397	0.28	0.28
Chinook Energy Inc.	193,795	238,482	(18.74%)	(91,028)	(63,752)	(42.78%)	(0.42)	(0.30)	83,944	70,800	0.39	0.33
Surge Energy Inc.	192,603	131,253	46.74%	(53,243)	2,095	(2641.43%)	(0.75)	0.04	92,861	56,639	1.31	1.08
Mart Resources Inc. ³	190,692	183,985	3.65%	58,025	71,333	(18.66%)	0.17	0.21	130,291	104,384	0.38	0.31
Paramount Resources Ltd.	185,662	213,356	(12.98%)	(61,912)	(231,990)	73.31%	(0.71)	(2.96)	55,220	84,960	0.63	1.08
Angle Energy Inc.	179,563	186,872	(3.91%)	(47,472)	(10,771)	(340.74%)	(0.59)	(0.15)	85,243	99,111	1.06	1.38
Perpetual Energy Inc.	176,137	246,256	(28.47%)	(46,178)	(100,227)	53.93%	(0.31)	(0.68)	48,599	56,580	0.33	0.38
Freehold Royalties Ltd.	168,134	157,910	6.47%	46,328	55,259	(16.16%)	0.71	0.92	138,132	118,370	2.12	1.97
Ithaca Energy Inc. ³	166,173	124,778	33.18%	93,365	35,456	163.33%	0.36	0.14	66,342	102,279	0.26	0.40
Lone Pine Resources Inc. ★ ⁷	161,703	191,170	(15.41%)	(274,535)	34,803	(888.83%)	(3.23)	0.44	80,558	120,823	0.95	1.53
Zargon Oil & Gas Ltd.	157,945	191,533	(17.54%)	(5,377)	10,380	(151.80%)	(0.18)	0.36	58,871	73,256	1.97	2.54
Canacol Energy Ltd. ^{3,8,9}	152,764	96,838	57.75%	18,549	(27,115)	168.41%	0.03	(0.06)	36,728	50,188	0.06	0.11
Oando Energy Resources Inc. ^{3,8}	144,004	168,175	(14.37%)	15,549	(2,566)	705.96%	0.19	(0.03)	33,878	33,095	0.41	0.39
Bonterra Energy Corp.	142,770	162,277	(12.02%)	33,211	43,608	(23.84%)	1.68	2.25	74,325	97,409	3.76	5.03
Longview Oil Corp.	139,774	113,868	22.75%	(8,268)	20,529	(140.27%)	(0.18)	0.61	66,396	58,659	1.45	1.74

Capital Expenditures (\$ 000's) 2012	Capital Expenditures (\$ 000's) 2011	Change (%)	Total Assets (000's) 2012	Total Assets (\$ 000's) 2011	Change (%)	Market Capitalization (\$ 000's) 2012	Market Capitalization (\$ 000's) 2011	Change (%)	Working Capital (\$ 000's) 2012	Working Capital (\$ 000's) 2011	Total Debt as a % of Equity 2012	Total Debt as a % of Equity 2011	Debt to Capital Ratio (%) 2012	Debt to Capital Ratio (%) 2011
7,010,000	6,824,000	(2.73%)	76,449,000	74,777,000	2.24%	49,819,194	45,792,726	8.79%	4,597,000	3,814,000	28.1%	27.9%	21.9%	21.8%
5,929,000	5,642,000	5.09%	48,980,000	47,278,000	3.60%	31,276,942	41,829,949	(25.23%)	(2,062,000)	(1,253,000)	36.0%	37.4%	26.5%	27.2%
5,478,000	3,919,000	39.78%	29,364,000	25,429,000	15.47%	36,217,905	38,472,519	(5.86%)	(1,813,000)	(866,000)	10.1%	9.1%	9.1%	8.3%
3,746,295	5,118,450	(26.81%)	21,784,120	24,702,280	(11.81%)	11,536,309	13,258,063	(12.99%)	(312,939)	(1,232,769)	44.8%	49.5%	31.0%	33.1%
4,645,000	4,484,000	3.59%	35,140,000	32,426,000	8.37%	28,877,539	23,507,536	22.84%	2,404,000	2,054,000	20.4%	22.0%	17.0%	18.0%
3,399,000	2,662,000	27.69%	24,216,000	22,194,000	9.11%	25,162,013	25,524,701	(1.42%)	1,309,000	523,000	47.7%	37.5%	32.3%	27.3%
3,853,612	5,066,063	(23.93%)	18,636,981	23,875,339	(21.94%)	14,475,658	13,908,707	4.08%	2,855,316	898,320	144.9%	95.0%	59.2%	48.7%
1,052,000	639,000	64.63%	10,171,000	8,620,000	17.99%	9,773,575	11,265,323	(13.24%)	893,000	720,000	39.7%	26.9%	28.4%	21.2%
1,705,659	1,175,199	45.14%	7,063,058	5,555,929	27.13%	7,357,508	5,472,494	34.45%	(262,670)	560,960	30.1%	32.0%	23.1%	24.2%
1,920,000	1,733,000	10.79%	14,491,000	15,584,000	(7.01%)	5,175,994	9,517,015	(45.61%)	(201,000)	(484,000)	30.3%	35.5%	23.3%	26.2%
3,288,007	1,368,260	140.31%	12,131,634	8,734,446	38.89%	14,157,948	12,973,952	9.13%	(368,709)	(372,764)	17.0%	18.8%	14.6%	15.8%
567,131	599,034	(5.33%)	7,469,908	5,644,728	32.33%	2,533,431	3,876,636	(34.65%)	128,752	(137,287)	36.5%	30.1%	26.8%	23.1%
634,500	781,400	(18.80%)	5,627,100	5,323,900	5.70%	7,549,223	7,251,265	4.11%	31,500	(183,400)	23.2%	24.1%	18.8%	19.4%
1,140,273	1,093,592	4.27%	5,412,162	5,723,312	(5.44%)	2,563,024	4,682,960	(45.27%)	(131,552)	(390,392)	35.1%	27.7%	26.0%	21.7%
593,667	567,823	4.55%	2,538,077	2,461,810	3.10%	5,224,481	6,716,364	(22.21%)	(24,856)	(50,397)	42.9%	50.5%	30.0%	33.6%
727,300	1,418,700	(48.73%)	5,654,600	6,284,400	(10.02%)	INA	INA	INA	(444,900)	(269,700)	59.8%	46.1%	37.4%	31.6%
921,795	958,960	(3.88%)	6,438,886	6,917,716	(6.92%)	1,972,633	1,365,115	44.50%	(535,648)	94,963	51.6%	82.2%	34.0%	45.1%
790,115	1,022,999	(22.76%)	2,117,718	2,270,273	(6.72%)	726,392	1,645,656	(55.86%)	(991,936)	75,251	52.3%	43.5%	34.3%	30.3%
605,616	547,726	10.57%	3,076,257	2,735,187	12.47%	5,152,041	4,375,035	17.76%	(35,209)	(55,525)	45.3%	28.0%	31.2%	21.9%
1,829,152	814,748	124.51%	8,018,679	6,201,049	29.31%	6,702,586	8,042,619	(16.66%)	1,655,915	1,475,245	51.1%	44.0%	33.8%	30.5%
559,586	670,019	(16.48%)	4,062,852	3,924,160	3.53%	2,630,876	3,756,635	(29.97%)	(74,607)	(51,110)	38.9%	54.0%	28.0%	35.1%
318,734	163,200	95.30%	891,171	528,929	68.49%	2,260,032	1,726,809	30.88%	(70,112)	(46,899)	22.3%	31.7%	18.2%	24.1%
336,875	430,721	(21.79%)	818,425	673,156	21.58%	629,163	754,854	(16.65%)	(12,597)	94,719	16.1%	14.4%	13.8%	12.6%
362,282	315,468	14.84%	1,395,111	1,260,364	10.69%	3,396,371	4,362,559	(22.15%)	(44,460)	(77,696)	121.8%	77.9%	54.9%	43.8%
751,079	795,642	(5.60%)	3,580,253	2,711,024	32.06%	5,459,412	4,222,921	29.28%	(98,913)	(146,317)	13.5%	4.1%	11.6%	4.0%
371,839	399,952	(7.03%)	2,395,439	2,301,400	4.09%	983,300	1,501,352	(34.51%)	(23,284)	(43,826)	31.6%	22.7%	24.0%	18.5%
224,663	239,587	(6.23%)	823,025	674,216	22.07%	814,790	1,099,778	(25.91%)	88,499	81,860	20.5%	14.5%	17.0%	12.7%
354,346	339,333	4.42%	1,833,802	1,842,719	(0.48%)	789,314	1,349,921	(41.53%)	(55,692)	(113,627)	20.5%	20.4%	17.0%	17.0%
48,983	65,712	(25.46%)	1,335,201	1,605,626	(16.84%)	80,882	340,678	(76.26%)	111,686	16,876	247.9%	227.5%	71.3%	69.5%
400,354	382,189	4.75%	2,203,524	1,800,252	22.40%	3,414,445	3,364,852	1.47%	(74,884)	40,232	47.9%	46.3%	32.4%	31.6%
104,183	117,892	(11.63%)	651,216	536,143	21.46%	688,498	589,554	16.78%	262,123	138,373	26.5%	16.9%	21.0%	14.5%
236,198	162,366	45.47%	1,495,778	641,671	133.11%	1,106,335	598,463	84.86%	(22,631)	(33,325)	34.1%	34.4%	25.5%	25.6%
135,771	74,363	82.58%	845,261	340,664	148.12%	640,645	288,442	122.11%	11,759	2,050	39.1%	44.2%	28.1%	30.7%
600,715	78,249	667.70%	1,107,640	388,313	185.24%	1,701,966	1,439,880	18.20%	(25,283)	11,569	86.2%	10.9%	46.3%	9.8%
214,473	177,108	21.10%	1,193,272	665,811	79.22%	539,525	383,926	40.53%	(287,146)	(6,360)	44.6%	27.5%	30.8%	21.6%
201,806	234,795	(14.05%)	1,913,796	1,972,789	(2.99%)	538,825	705,129	(23.58%)	40,248	(93,376)	32.8%	27.3%	22.5%	19.9%
307,933	219,648	40.19%	1,430,324	1,225,497	16.71%	1,056,308	1,723,740	(38.72%)	(29,567)	(48,598)	51.9%	59.2%	34.2%	37.2%
119,800	149,088	(19.64%)	878,174	1,373,705	(36.07%)	696,288	521,450	33.53%	(9,406)	(26,676)	3.0%	38.3%	2.9%	27.7%
192,812	170,185	13.30%	681,421	580,422	17.40%	460,600	527,370	(12.66%)	(880)	(21,651)	52.0%	31.8%	34.2%	24.1%
112,241	97,900	14.65%	581,521	738,530	(21.26%)	154,355	202,972	(23.95%)	(15,096)	(36,826)	71%	35%	41%	26%
134,573	191,576	(29.75%)	620,725	606,521	2.34%	896,170	1,170,536	(23.44%)	(7,788)	37,825	0.0%	0.0%	0.0%	0.0%
122,611	135,417	(9.46%)	622,476	745,403	(16.49%)	308,431	349,126	(11.66%)	16,754	(429)	25.9%	31.6%	20.6%	24.0%
205,986	166,526	23.70%	681,444	516,062	32.05%	391,694	563,586	(30.50%)	(24,628)	(27,158)	55.4%	22.3%	35.7%	18.2%
60,170	53,052	13.42%	280,555	198,598	41.27%	605,469	303,043	99.80%	(6,227)	35,189	0.0%	0.0%	0.0%	0.0%
587,623	548,229	7.19%	2,036,955	1,725,713	18.04%	2,875,424	3,630,095	(20.79%)	(30,274)	(45,535)	82.4%	54.6%	45.2%	35.3%
155,558	167,891	(7.35%)	623,637	595,691	4.69%	289,354	462,520	(37.44%)	50,561	(11,902)	68.3%	62.2%	40.6%	38.3%
90,153	165,364	(45.48%)	721,104	1,016,694	(29.07%)	169,573	171,951	(1.38%)	15,818	(65,603)	1,044.9%	647.2%	91.3%	86.6%
99,355	32,136	209.17%	448,237	428,939	4.50%	1,484,453	1,186,740	25.09%	(23,897)	7,608	5.7%	17.2%	5.4%	14.7%
134,376	195,415	(31.24%)	930,350	820,494	13.39%	517,241	562,387	(8.03%)	23,738	110,641	0.0%	0.0%	0.0%	0.0%
184,833	325,095	(43.14%)	622,803	992,301	(37.24%)	308,431	613,039	(49.69%)	(22,977)	(30,064)	166.8%	70.2%	62.5%	41.3%
65,391	84,416	(22.54%)	445,105	470,687	(5.44%)	308,431	400,177	(22.93%)	(15,497)	(21,971)	44.3%	41.4%	30.7%	29.3%
158,047	75,368	109.70%	405,453	322,794	25.61%	281,637	542,335	(48.07%)	20,481	96,406	18.3%	16.5%	15.5%	14.2%
25,904	47,350	45.29%	1,064,398	996,223	6.84%	180,291	INA	INA	(536,355)	(256,138)	135.9%	57.9%	57.5%	36.7%
103,658	49,540	109.24%	419,933	364,176	15.31%	908,671	1,008,314	(9.88%)	(29,876)	(51,576)	118.7%	64.4%	54.3%	39.2%
54,435	39,319	38.44%	489,786	514,062	(4.72%)	252,451	473,114	(46.64%)	(11,511)	(22,812)	43.8%	31.3%	30.5%	23.9%

Financial statistics

Exploration and production companies

PwC's Top 100

Company ¹⁴	Gross Revenues (\$ 000's) 2012 ⁴	Gross Revenues (\$ 000's) 2011 ⁴	Change (%)	Net Income/ (Loss) (\$ 000's) 2012	Net Income/ (Loss) (\$ 000's) 2011	Change (%)	EPS 2012 ⁵	EPS 2011 ⁵	Cash Flow from Ops. (\$ 000's) 2012	Cash Flow from Ops. (\$ 000's) 2011	CFPS 2012 ⁶	CFPS 2011 ⁶
Arcan Resources Ltd.	133,579	104,969	27.26%	(48,984)	(779)	(6188.06%)	(0.50)	(0.01)	44,886	44,889	0.46	0.58
Renegade Petroleum Ltd. 🇨🇦	112,399	80,031	40.44%	(29,458)	(2,645)	(1013.72%)	(0.32)	(0.04)	44,696	36,102	0.49	0.55
Fairborne Energy Ltd. ¹¹	110,530	205,766	(46.28%)	(185,116)	(74,264)	(149.27%)	(1.80)	(0.72)	42,433	118,107	0.41	1.15
Calvalley Petroleum Inc. 🇨🇦 ³	102,100	73,450	39.01%	25,666	21,098	21.65%	0.27	0.22	35,693	27,248	0.38	0.28
Pinecrest Energy Inc.	98,204	46,846	109.63%	32,129	8,362	284.23%	0.15	0.05	75,692	26,708	0.35	0.16
Parallel Energy Trust	86,304	45,917	87.96%	(69,956)	(39,768)	(75.91%)	(1.46)	(1.19)	33,645	18,222	0.70	0.55
Delphi Energy Corp.	85,754	126,887	(32.42%)	(58,030)	11,602	(600.17%)	(0.43)	0.10	31,078	68,300	0.23	0.59
DeeThree Exploration Ltd.	85,112	32,747	159.91%	7,181	(12,573)	157.11%	0.11	(0.22)	62,292	7,100	0.95	0.12
RMP Energy Inc.	84,688	49,511	71.05%	(7,819)	(74,974)	89.57%	(0.08)	(0.93)	47,660	17,108	0.49	0.21
Southern Pacific Resource Corp. ⁹	84,651	93,727	(9.68%)	11,150	14,887	(25.10%)	0.03	0.04	46,158	43,933	0.12	0.12
Arsenal Energy Inc. 🇨🇦	82,168	58,466	40.54%	(112)	(2,545)	95.60%	0.00	(0.02)	29,700	24,687	0.19	0.19
Eagle Energy Trust 🇨🇦	81,130	44,181	83.63%	6,117	(1,214)	604.04%	0.25	(0.07)	34,187	14,312	1.40	0.83
Crocotta Energy Inc.	80,518	54,974	46.47%	(5,254)	(5,592)	6.04%	(0.06)	(0.07)	47,449	29,291	0.54	0.37
Anderson Energy Ltd.	77,806	118,292	(34.23%)	(31,493)	(22,444)	(40.32%)	(0.18)	(0.13)	29,839	54,309	0.17	0.31
Novus Energy Inc.	75,952	53,137	42.94%	6,765	(808)	937.25%	0.04	0.00	44,329	19,022	0.26	0.10
Cequence Energy Ltd.	75,811	101,090	(25.01%)	(17,673)	(20,158)	12.33%	(0.10)	(0.14)	37,770	36,700	0.21	0.25
Painted Pony Petroleum Ltd.	74,289	73,936	0.48%	(48,111)	6,542	(835.42%)	(0.68)	0.11	39,732	44,884	0.56	0.75
Equal Energy Ltd. 🇨🇦 * ⁷	61,478	70,512	(12.81%)	61,827	5,373	1050.70%	1.76	0.17	34,795	56,279	0.99	1.78
Winstar Resources Ltd. 🇨🇦 ³	58,817	60,544	(2.85%)	4,691	7,383	(36.46%)	0.13	0.21	25,236	34,309	0.70	0.96
Strategic Oil & Gas Ltd. 🇨🇦	56,512	23,853	136.92%	(4,788)	(24,646)	80.57%	(0.03)	(0.18)	19,785	(4,553)	0.12	(0.03)
Pan Orient Energy Corp. 🇨🇦	55,162	72,576	(23.99%)	86,642	23,991	261.14%	1.53	0.43	34,323	39,791	0.61	0.71
Suroco Energy Inc. 🇨🇦 ^{3,7,8}	52,168	46,566	12.03%	6,647	568	(1070.25%)	0.01	(0.03)	11,703	24,642	0.02	(1.30)
TriOil Resources Ltd.	50,051	26,580	88.30%	10,895	(15,400)	170.75%	0.20	(0.48)	21,796	6,060	0.40	0.19
Raging River Exploration Inc. ¹²	49,964	-	-	11,337	-	-	0.10	-	35,876	-	0.32	-
Second Wave Petroleum Inc.	49,014	38,605	26.96%	(15,165)	(8,595)	(76.43%)	(0.18)	(0.10)	32,338	12,804	0.38	0.15
Palliser Oil & Gas Corporation	47,547	33,781	40.75%	1,538	(4,905)	131.36%	0.03	(0.12)	16,738	4,532	0.33	0.11
Rock Energy Inc.	46,567	64,289	(27.57%)	(12,210)	(6,918)	(76.50%)	(0.31)	(0.19)	16,349	19,740	0.42	0.54
Terra Energy Corp.	45,413	71,107	(36.13%)	(49,977)	(6,889)	(625.46%)	(0.49)	(0.07)	(6,339)	17,761	(0.06)	0.18
Sea Dragon Energy Inc. 🇨🇦 ³	44,982	41,419	8.60%	(28,098)	(12,690)	(121.41%)	(0.07)	(0.03)	7,340	(1,878)	0.02	(0.00)
Artek Exploration Ltd.	41,105	44,279	(7.17%)	(2,172)	(16,915)	87.16%	(0.05)	(0.44)	15,667	21,666	0.36	0.56
Touchstone Exploration Inc. 🇨🇦 ^{3,10}	40,335	13,888	190.43%	1,770	(780)	326.85%	0.02	(0.01)	7,141	92	0.08	0.00
Insignia Energy Ltd.	38,424	49,087	(21.72%)	(17,862)	(11,983)	(49.06%)	(0.30)	(0.35)	13,422	26,789	0.23	0.78
Marquee Energy Ltd.	37,405	28,605	30.77%	(10,529)	(25,906)	59.36%	(0.21)	(0.98)	8,740	9,108	0.17	0.34
Manitok Energy Inc.	37,349	9,507	292.86%	(2,657)	(7,190)	63.05%	(0.04)	(0.15)	16,622	1,320	0.25	0.03
Dundee Energy Limited 🇨🇦 ⁸	35,874	42,176	(14.94%)	(16,623)	(1,246)	(1234.11%)	(0.10)	(0.01)	7,853	15,533	0.05	0.12
Tamarack Valley Energy Ltd.	34,413	16,625	107.00%	(4,140)	(3,063)	(35.18%)	(0.16)	(0.21)	13,914	9,747	0.54	0.67
Epsilon Energy Ltd. 🇨🇦 ³	33,837	8,824	283.49%	(4,128)	18,982	(121.75%)	(0.08)	0.39	28,607	5,577	0.55	0.11
Tethys Petroleum Ltd. 🇨🇦 ^{3,8}	33,370	15,037	121.92%	(20,415)	(26,629)	23.33%	(0.07)	(0.10)	1,358	(12,414)	0.00	(0.05)
TORC Oil & Gas Ltd.	32,711	3,369	870.94%	(18,767)	(4,667)	(302.12%)	(0.16)	(0.06)	8,514	(600)	0.07	(0.01)
Storm Resources Ltd.	32,313	6,892	368.85%	(6,574)	(3,664)	(79.42%)	(0.12)	(0.14)	11,425	121	0.21	0.00
Exall Energy Corporation	31,485	34,158	(7.83%)	3,633	6,960	(47.80%)	0.06	0.11	17,924	16,989	0.30	0.27
Hyperion Exploration Corp.	29,214	20,778	40.60%	(11,945)	(4,173)	(186.24%)	(0.22)	(0.09)	14,567	9,174	0.27	0.20
Stream Oil & Gas Ltd. 🇨🇦 ^{3,7,13}	28,657	14,567	96.73%	1,974	2,725	(27.56%)	0.03	0.04	13,334	8,606	2.03	0.12
Athabasca Oil Corporation	25,797	4,070	533.83%	260,234	142,315	82.86%	0.65	0.36	(40,656)	(15,536)	(0.10)	(0.04)
Sonde Resources Corp. 🇨🇦	28,873	39,495	(26.89%)	21,483	(40,571)	152.95%	0.34	(0.70)	1,080	5,108	0.02	0.09

Notes

1. INA: Information not available
2. Data obtained from Canoil. For companies not updated in the database as at May 7, 2013 were not included in the list
3. All USD balances were translated at 0.99662 per Oanda. All USD transactional accounts were translated at 0.99964 per Oanda
4. Only upstream Revenue included in the Gross Revenues
5. Earnings per Share are basic
6. Cash Flow per Share ("CFPS") is calculated by PwC based on weighted average number of shares (basic) and Cash Flow from Operations
7. Revenue presented are net of Royalties
8. NCI excluded from Income / (Loss) and Debt / Equity ratio
9. Year ended June 30, 2012
10. Year ended September 30, 2012
11. Entity name changed to 'Santonia Energy Inc.' effective January 1, 2013
12. Year end for 2012 is for the period March 16 to December 31
13. Year ended November 30, 2012
14. Canadian Public companies based in Canada.

* Reported under US GAAP

🇨🇦 Canadian companies with international operations

Capital Expenditures (\$ 000's) 2012	Capital Expenditures (\$ 000's) 2011	Change (%)	Total Assets (000's) 2012	Total Assets (\$ 000's) 2011	Change (%)	Market Capitalization (\$ 000's) 2012	Market Capitalization (\$ 000's) 2011	Change (%)	Working Capital (\$ 000's) 2012	Working Capital (\$ 000's) 2011	Total Debt as a % of Equity 2012	Total Debt as a % of Equity 2011	Debt to Capital Ratio (%) 2012	Debt to Capital Ratio (%) 2011
230,820	233,681	(1.22%)	613,389	527,369	16.31%	99,817	486,849	(79.50%)	(1,731)	(38,716)	122.4%	48.1%	55.0%	32.5%
542,445	121,586	346.14%	894,142	360,760	147.85%	495,190	224,195	120.87%	(290,742)	(76,416)	54.9%	30.4%	35.5%	23.3%
88,989	177,079	(49.75%)	398,991	918,287	(56.55%)	143,632	303,678	(52.70%)	(6,885)	(32,767)	2.9%	43.3%	2.9%	30.2%
2,261	26,464	91.46%	230,822	207,960	10.99%	169,792	167,834	1.17%	102,948	76,837	0.0%	0.0%	0.0%	0.0%
206,844	138,054	49.83%	465,578	287,730	61.81%	319,323	463,634	(31.13%)	(40,436)	(26,974)	18.0%	0.0%	15.2%	0.0%
218,061	423,425	(48.50%)	509,083	397,086	28.20%	210,366	323,298	(34.93%)	(4,346)	(3,530)	73.7%	19.6%	42.4%	16.4%
102,539	99,694	2.85%	401,649	447,073	(10.16%)	174,476	277,720	(37.18%)	(8,418)	(12,722)	34.9%	30.7%	25.9%	23.5%
144,753	187,557	(22.82%)	329,666	213,239	54.60%	462,731	129,462	257.43%	(76,736)	(17,284)	29.8%	5.1%	22.9%	4.8%
112,205	103,108	8.82%	317,204	279,185	13.62%	312,846	214,559	45.81%	(5,132)	(13,353)	31.1%	17.1%	23.7%	14.6%
358,799	199,349	79.99%	916,826	878,887	4.32%	433,419	525,709	(17.56%)	(7,026)	259,519	108.5%	108.1%	52.0%	51.9%
42,573	81,621	(47.84%)	182,457	170,986	6.71%	82,652	108,525	(23.84%)	(5,326)	(5,981)	113.5%	94.9%	53.2%	48.7%
159,359	27,349	482.69%	284,802	158,885	79.25%	225,079	186,363	20.77%	(3,048)	(3,171)	17.9%	0.0%	15.2%	0.0%
112,444	71,171	57.99%	300,980	239,554	25.64%	267,783	318,904	(16.03%)	(81,704)	(27,736)	38.1%	2.9%	27.6%	2.8%
62,967	149,513	(57.89%)	343,478	460,319	(25.38%)	40,549	93,177	(56.48%)	(65,628)	(42,590)	101.4%	106.2%	50.4%	51.5%
79,472	78,184	(1.65%)	237,388	180,826	31.28%	196,950	131,812	49.42%	(78,883)	(48,257)	50.9%	44.4%	33.7%	30.8%
121,248	146,775	(17.39%)	519,324	491,365	5.69%	288,878	477,475	(39.50%)	(49,634)	(56,731)	5.6%	3.0%	5.3%	3.0%
231,007	139,166	65.99%	612,181	478,656	27.90%	924,543	780,562	18.45%	45,216	68,291	0.0%	0.0%	0.0%	0.0%
20,841	116,933	(82.18%)	226,222	323,094	(29.98%)	108,498	159,638	(32.03%)	28,593	10,850	27.9%	184.0%	21.8%	64.8%
25,705	37,882	(32.15%)	202,573	188,070	7.71%	103,948	136,630	(23.92%)	10,250	(776)	0.0%	0.0%	0.0%	0.0%
83,101	33,002	151.81%	159,718	117,695	35.70%	219,970	162,309	35.53%	(47,527)	17,260	41.7%	0.0%	29.4%	0.0%
73,613	75,578	(2.60%)	382,118	371,276	2.92%	166,190	110,536	50.35%	114,210	48,651	0.0%	0.0%	0.0%	0.0%
26,825	27,336	1.87%	78,360	66,208	18.35%	52,389	39,701	31.96%	(555)	9,173	7.2%	10.9%	6.7%	9.8%
113,450	44,015	157.75%	261,488	157,254	66.28%	191,306	108,054	77.05%	(21,943)	8,125	2.9%	0.0%	2.8%	0.0%
121,111	-	-	316,287	-	-	503,191	-	-	(14,758)	-	0.0%	-	0.0%	-
67,976	59,796	13.68%	221,066	223,198	(0.96%)	41,219	218,604	(81.14%)	(116,668)	(78,841)	116.8%	69.6%	53.9%	41.0%
32,789	36,137	(9.26%)	99,407	74,064	34.22%	37,706	44,928	(16.07%)	(34,850)	(22,145)	69.1%	41.3%	40.9%	29.2%
29,426	67,480	(56.39%)	145,563	189,149	(23.04%)	43,011	80,288	(46.43%)	(2,591)	(31,227)	0.0%	23.4%	0.0%	19.0%
3,659	25,213	(85.49%)	198,788	295,670	(32.77%)	23,382	54,963	(57.46%)	27,808	(9,172)	84.5%	74.2%	45.8%	42.6%
8,352	7,932	5.30%	51,830	77,151	(32.82%)	22,588	28,234	(20.00%)	6,623	12,173	7.3%	4.4%	6.8%	4.2%
47,754	48,061	(0.64%)	180,467	167,836	7.53%	166,736	90,775	83.68%	(48,896)	(50,981)	26.9%	44.5%	21.2%	30.8%
12,535	36,250	(65.42%)	123,278	126,124	(2.26%)	20,626	23,971	(13.95%)	(2,305)	(2,622)	52.3%	58.7%	34.3%	37.0%
29,027	22,664	28.08%	141,500	161,217	(12.23%)	45,130	62,500	(27.79%)	(11,215)	(9,742)	7.6%	0.0%	7.1%	0.0%
50,155	37,379	34.18%	162,645	139,367	16.70%	42,636	50,545	(15.65%)	(44,507)	(26,647)	41.0%	24.6%	29.1%	19.8%
47,270	69,975	(32.45%)	126,322	104,290	21.13%	208,203	99,499	109.25%	(10,417)	(7,954)	3.4%	2.6%	3.3%	2.5%
13,710	15,876	(13.64%)	169,631	186,586	(9.09%)	49,395	103,745	(52.39%)	(63,590)	(59,126)	110.5%	81.3%	52.4%	44.7%
47,970	41,547	15.46%	152,344	64,955	134.54%	75,750	67,879	11.59%	(47,836)	(7,979)	51.2%	2.0%	33.9%	1.9%
76,819	14,444	431.84%	169,370	131,530	28.77%	191,891	140,284	36.79%	7,002	4,567	32.3%	0.0%	24.4%	0.0%
19,713	48,949	(59.73%)	251,101	268,569	(6.50%)	149,088	149,080	0.01%	(9,912)	961	8.2%	4.4%	7.6%	4.2%
119,106	179,799	(33.76%)	627,457	368,462	70.29%	447,593	219,746	103.69%	37,059	81,771	0.0%	0.0%	0.0%	0.0%
33,738	42,568	(20.74%)	248,792	109,083	128.08%	119,321	98,650	20.95%	(2,755)	(2,181)	22.7%	20.2%	18.5%	16.8%
48,267	45,683	5.66%	128,242	94,665	35.47%	31,652	122,660	(74.20%)	(38,705)	(32,645)	98.9%	63.6%	49.7%	38.9%
45,140	48,895	(7.68%)	105,456	88,886	18.64%	26,282	49,855	(47.28%)	(33,649)	(6,002)	46.7%	2.7%	31.8%	2.6%
29,953	17,979	66.60%	68,400	46,240	47.93%	51,977	55,249	(5.92%)	(14,499)	(14,998)	65.3%	0.8%	39.5%	0.8%
982,794	518,489	89.55%	4,458,635	3,944,786	13.03%	4,177,743	4,977,004	(16.06%)	1,150,012	1,349,933	15.3%	15.0%	13.3%	13.1%
59,833	76,602	(21.89%)	186,486	186,887	(0.21%)	101,551	165,098	(38.49%)	17,187	(20,907)	0.0%	0.0%	0.0%	0.0%

Operational statistics

Exploration and production companies

PwC's Top 100

Company ¹³	Oil & Liquid Production bbls/d 2012	NG Production mmcf/d 2012	Total Production boe/d 2012	Total Production boe/d 2011	Change (%)	Liquids Price per bbl 2012 ^{4,7}	NG Price per mcf 2012 ⁴	Proved Reserves (mBOE) 2012 ⁵	Proved Reserves (mBOE) 2011 ⁵	Change (%)	Probable Reserves (mBOE) 2012 ⁵	Probable Reserves (mBOE) 2011 ⁵
Suncor Energy Inc.	500,800	290	549,133	545,966	0.58%	96.71	2.17	4,099,000	4,028,000	1.76%	2,775,000	3,079,000
Canadian Natural Resources Limited	451,378	1,220	654,711	598,553	9.38%	70.24	2.44	5,018,000	4,831,000	3.87%	2,868,000	2,707,000
Imperial Oil Limited *	250,000	192	282,000	297,333	(5.16%)	67.87	2.33	4,130,833	3,191,000	29.45%	1,993,500	2,012,500
Talisman Energy Inc. ³	162,000	1,582	425,667	426,500	(0.20%)	104.78	5.01	1,091,000	1,487,600	(26.66%)	619,000	735,000
Husky Energy Inc.	209,200	554	301,533	312,467	(3.50%)	75.50	2.60	1,192,000	1,172,000	1.71%	1,723,000	1,679,000
Cenovus Energy Inc.	165,403	594	264,403	243,572	8.55%	65.79	2.42	2,175,167	1,945,500	11.81%	893,333	715,167
Encana Corporation *	31,000	2,981	527,833	579,500	(8.92%)	75.09	4.82	2,514,167	2,737,000	(8.14%)	1,520,667	1,591,833
Canadian Oil Sands Limited	105,680	—	105,680	106,015	(0.32%)	91.90	—	801,000	848,000	(5.54%)	895,000	914,000
Pacific Rubiales Energy Corp. ³	234,826	70	246,575	218,450	12.87%	103.24	7.34	389,800	383,900	1.54%	209,900	110,100
Penn West Petroleum Ltd.	104,144	342	161,144	163,041	(1.16%)	75.05	2.79	445,000	497,500	(10.55%)	231,000	222,000
Crescent Point Energy Corp	89,704	54	98,751	73,799	33.81%	80.51	2.61	400,373	281,031	42.47%	208,424	143,747
Pengrowth Energy Corporation	45,250	243	85,749	73,973	15.92%	69.14	2.49	299,251	234,268	27.74%	211,656	95,423
ARC Resources Ltd.	36,399	343	93,549	83,487	12.05%	70.92	2.62	363,904	359,641	1.19%	243,079	212,733
Enerplus Corporation	40,136	252	82,098	75,332	8.98%	65.60	2.39	223,853	216,743	3.28%	117,220	98,908
Baytex Energy Corp.	46,807	43	53,990	50,132	7.70%	61.74	2.45	143,444	156,562	(8.38%)	148,152	95,613
Harvest Operations Corp.	38,930	122	59,328	57,161	3.79%	72.39	2.58	252,383	264,581	(4.61%)	241,550	240,406
PetroBakken Energy Ltd.	35,923	41	42,784	40,998	4.36%	80.54	2.63	130,638	118,891	9.88%	75,045	83,006
Petrominerales Ltd. ³	29,134	—	29,134	38,378	(24.09%)	97.21	—	26,914	31,796	(15.35%)	14,378	19,700
Vermilion Energy Inc.	25,270	75	37,803	35,202	7.39%	101.07	6.17	105,262	96,499	9.08%	59,605	49,733
MEG Energy Corp.	28,773	—	28,773	26,605	8.15%	46.93	—	1,283,983	708,162	81.31%	1,359,574	1,352,102
Bonavista Energy Corporation	27,071	253	69,250	69,258	(0.01%)	61.25	2.60	248,409	231,760	7.18%	123,813	109,629
Coastal Energy Company ³	21,912	—	21,912	11,540	89.88%	105.79	—	68,082	62,489	8.95%	51,592	17,453
Parex Resources Inc. ³	11,407	—	11,407	5,345	113.41%	109.14	—	10,063	4,953	103.17%	6,038	5,759
Trilogy Energy Corp.	13,468	120	33,510	28,012	19.63%	63.81	2.57	70,633	63,665	10.95%	26,326	24,913
Tourmaline Oil Corp	6,137	268	50,804	31,007	63.85%	83.71	2.67	249,077	148,849	67.34%	188,791	120,948
Legacy Oil + Gas Inc.	14,160	14	16,440	12,650	29.97%	68.81	2.80	55,407	52,404	5.73%	38,751	35,588
Bankers Petroleum Ltd. ³	14,808	—	14,808	12,784	15.83%	79.70	—	139,400	172,400	(19.14%)	86,300	94,700
Crew Energy Inc. ⁷	14,648	80	27,963	22,452	24.54%	61.88	2.54	85,087	75,624	12.51%	67,889	61,650
Connacher Oil and Gas Limited	11,881	—	11,881	13,379	(11.20%)	56.43	—	214,009	176,994	20.91%	237,394	326,758
Peyto Exploration & Development Corp.	4,778	239	44,528	35,465	25.56%	73.92	3.23	276,346	225,167	22.73%	115,645	97,096
TransGlobe Energy Corporation ³	17,496	—	17,496	12,132	44.21%	98.97	—	32,767	28,148	16.41%	15,951	16,062
Whitecap Resources Inc.	9,610	27	14,052	5,657	148.39%	65.99	2.58	60,889	25,625	137.61%	26,560	12,954
Twin Butte Energy Ltd.	12,346	14	14,681	7,615	92.80%	74.81	2.57	31,675	20,925	51.37%	24,517	14,695
Aurora Oil & Gas Limited ³	8,754	12	10,679	2,859	273.51%	77.09	2.90	94,688	80,383	17.80%	8,181	11,700
Long Run Exploration Ltd.	8,576	28	13,189	5,809	127.03%	71.60	2.80	53,657	28,899	85.67%	29,509	14,385
Advantage Oil & Gas Ltd.	6,082	131	27,917	27,909	0.03%	74.69	2.12	191,349	161,146	18.74%	114,546	94,293
Birchcliff Energy Ltd.	4,991	107	22,802	18,136	25.73%	84.12	2.63	185,950	156,163	19.07%	131,820	119,277
NuVista Energy Ltd.	6,743	95	22,577	25,555	(11.65%)	64.54	2.35	59,155	69,464	(14.84%)	34,917	40,196
Bellatrix Exploration Ltd.	5,717	66	16,686	11,954	39.58%	72.65	3.17	55,215	41,762	32.21%	48,518	25,673
Pace Oil & Gas Ltd.	6,374	41	13,223	14,040	(5.82%)	75.37	2.43	41,077	44,430	(7.55%)	20,142	25,201
BlackPearl Resources Inc. ¹⁴	9,304	—	9,366	7,620	22.92%	61.76	2.45	15,885	15,279	3.96%	197,439	20,532
Chinook Energy Inc.	4,759	45	12,184	14,602	(16.56%)	78.44	2.55	28,950	32,167	(10.00%)	22,703	23,644
Surge Energy Inc.	6,181	16	8,873	5,960	48.89%	78.01	2.73	28,138	20,523	37.11%	17,987	11,684
Mart Resources Inc. ³	5,039	—	5,039	4,927	2.27%	103.39	—	13,927	11,160	24.79%	5,367	13,490
Paramount Resources Ltd.	3,493	99	19,910	17,433	14.21%	75.38	2.72	50,852	35,673	42.55%	35,987	17,343
Angle Energy Inc.	6,573	48	14,639	13,163	11.21%	57.22	2.50	41,288	38,144	8.24%	38,261	35,665
Perpetual Energy Inc.	3,448	100	20,148	23,676	(14.90%)	64.13	3.34	36,099	38,907	(7.22%)	38,695	41,509
Freehold Royalties Ltd.	5,695	19	8,850	7,476	18.37%	72.94	1.90	3,516	3,434	2.39%	2,893	2,303
Ithaca Energy Inc. ³	5,862	INA	5,862	4,370	34.14%	112.72	6.48	26,023	26,133	(0.42%)	25,833	24,120
Lone Pine Resources Inc. *	4,370	60	14,400	16,823	(14.40%)	81.96	2.16	40,340	66,087	(38.96%)	57,896	46,014
Zargon Oil & Gas Ltd.	5,255	17	8,117	9,130	(11.10%)	75.07	2.16	18,269	20,998	(13.00%)	12,691	12,999
Canacol Energy Ltd. ^{3, 8}	11,661	—	11,661	6,902	68.95%	42.84	—	11,305	6,162	83.46%	6,489	4,746
Oando Energy Resources Inc. ³	4,051	INA	4,051	4,925	(17.75%)	110.17	109.51	10,410	6,785	53.43%	4,635	4,999
Bonterra Energy Corp.	4,511	13	6,704	6,322	6.05%	67.11	2.60	33,134	28,130	17.79%	11,898	13,019
Longview Oil Corp.	4,745	9	6,235	6,276	(0.65%)	76.47	2.56	21,162	20,703	2.21%	16,714	16,877

Change (%)	Gas Leverage based on Proved Reserves 2012	Gas Leverage based on Proved Reserves 2011	Op. Costs per boe 2012	Op. Costs per boe 2011	Change (%)	Royalties per boe 2012	Royalties per boe 2011	G&A Costs per boe 2012	G&A Costs per boe 2011	Depletion Costs per boe 2012	Depletion Costs per boe 2011	Cash Flow per boe 2012 ⁶	Cash Flow per boe 2011 ⁶
(9.87%)	3.49%	4.17%	30.78	30.21	1.91%	11.55	11.40	INA	INA	32.09	19.83	44.01	50.12
5.95%	13.74%	15.00%	13.14	12.42	5.80%	7.07	8.12	1.13	1.07	18.65	16.35	25.91	28.58
(0.94%)	1.09%	1.40%	26.27	22.89	14.78%	INA	INA	10.50	10.76	7.39	7.04	45.47	41.36
(15.78%)	71.50%	66.00%	15.82	14.01	12.97%	12.18	12.40	3.27	2.74	16.08	12.41	17.43	17.86
2.62%	35.06%	34.00%	15.49	14.01	10.56%	6.29	9.86	1.75	1.34	19.20	17.69	47.02	44.52
24.91%	7.32%	10.36%	11.18	10.35	8.02%	4.00	5.55	3.65	3.32	16.42	14.57	35.44	36.82
(4.47%)	88.76%	94.38%	4.11	4.05	1.52%	INA	INA	2.03	1.64	10.12	10.66	16.08	18.30
(2.08%)	—	—	39.06	38.80	0.67%	5.21	7.93	0.95	0.85	10.41	9.84	48.19	50.60
90.64%	45.40%	22.00%	39.76	33.58	18.39%	INA	INA	7.02	4.75	21.34	17.71	19.97	15.11
4.05%	6.07%	5.63%	17.26	17.40	(0.80%)	10.07	11.09	2.91	2.38	25.86	19.45	20.28	23.64
44.99%	8.49%	7.94%	11.65	11.16	4.36%	12.95	13.95	1.30	1.32	39.95	34.88	42.83	49.11
121.81%	43.04%	43.71%	14.61	14.15	3.26%	8.84	10.29	2.12	2.38	18.08	16.22	17.70	25.67
14.26%	65.04%	65.76%	9.40	9.70	(3.08%)	5.72	7.20	2.84	2.63	16.68	16.72	20.60	29.62
18.51%	40.58%	42.37%	10.64	10.23	4.01%	8.95	8.92	2.61	2.46	17.00	15.76	17.86	22.67
54.95%	9.21%	9.25%	11.77	11.43	2.97%	9.85	11.59	2.26	2.15	15.08	13.57	29.30	31.25
0.48%	20.87%	21.18%	16.54	16.80	(1.52%)	7.58	9.37	2.99	2.91	26.69	25.68	20.45	26.86
(9.59%)	18.33%	14.00%	12.39	12.21	1.42%	9.89	12.41	2.88	2.65	28.43	26.87	39.37	46.80
(27.02%)	—	—	16.47	12.12	35.94%	12.55	11.60	3.36	2.47	34.57	22.16	67.45	55.25
19.85%	38.63%	42.00%	13.10	12.64	3.66%	3.82	4.22	3.21	3.47	21.72	18.42	35.99	34.80
0.55%	—	—	9.98	10.96	(8.94%)	2.46	3.24	6.72	5.74	13.76	12.81	22.87	32.37
12.94%	61.79%	60.30%	9.07	9.05	0.20%	4.90	6.39	1.06	0.95	13.06	12.39	16.12	22.44
195.61%	—	—	21.25	28.61	(25.71%)	11.23	8.39	4.02	7.38	9.94	17.62	38.49	44.32
4.84%	—	—	8.40	6.50	29.10%	8.31	8.08	7.45	8.00	43.35	27.28	61.11	60.93
5.67%	63.05%	68.12%	8.33	8.29	0.57%	4.61	3.80	0.94	1.19	18.29	15.55	19.24	21.10
56.09%	88.18%	87.61%	4.43	5.58	(20.58%)	1.63	2.08	0.79	1.02	13.04	13.98	14.75	20.18
8.89%	18.10%	19.23%	14.34	15.52	(7.56%)	11.79	12.83	3.02	3.05	34.55	31.31	39.81	36.43
(8.87%)	—	—	14.37	12.89	11.52%	14.45	13.54	2.96	2.92	11.99	8.37	29.91	28.01
10.12%	57.86%	58.44%	11.54	11.21	2.96%	8.87	11.21	1.79	1.72	19.80	19.01	20.93	18.72
(27.35%)	—	0.50%	19.14	20.08	(4.68%)	2.42	2.84	9.45	6.02	19.27	15.76	10.02	29.17
19.10%	82.87%	81.72%	1.92	2.12	(9.31%)	1.89	3.17	0.24	0.38	10.57	10.10	17.45	22.40
(0.69%)	—	—	8.18	8.18	(0.01%)	49.38	45.07	4.40	4.21	7.33	7.83	14.71	14.20
105.04%	30.49%	23.41%	10.97	11.91	(7.86%)	6.82	7.93	1.80	1.74	22.63	23.28	33.74	38.26
66.84%	32.70%	52.57%	18.55	15.75	17.84%	11.97	10.37	1.97	2.27	18.51	15.42	24.52	22.71
(30.08%)	25.14%	17.67%	6.27	3.71	69.08%	19.85	19.02	3.87	8.32	10.02	4.14	36.86	33.10
105.14%	59.39%	38.06%	14.57	16.39	(11.11%)	8.00	9.00	7.61	4.93	25.18	25.61	28.18	34.80
21.48%	88.30%	87.50%	8.73	8.75	(0.23%)	3.34	5.20	2.05	2.18	12.94	15.01	10.47	21.42
10.52%	86.21%	84.53%	6.06	6.75	(10.26%)	2.90	4.44	2.75	3.74	11.48	10.84	12.97	21.59
(13.13%)	71.61%	70.54%	11.17	11.12	0.50%	3.40	4.63	2.58	2.12	14.45	17.10	7.08	17.18
88.99%	64.40%	62.26%	8.73	11.53	(24.29%)	6.35	7.95	2.34	2.83	12.40	14.53	17.90	22.50
(20.07%)	41.31%	45.00%	16.15	13.48	19.81%	9.70	10.93	4.42	3.72	52.94	13.18	74.51	17.76
861.62%	3.15%	1.43%	17.82	17.80	0.11%	13.68	16.49	2.25	2.49	20.90	22.21	23.30	27.11
(3.98%)	47.39%	54.36%	19.24	18.72	2.78%	2.70	6.72	3.69	3.71	22.16	20.74	18.88	13.28
53.94%	33.59%	39.41%	11.61	15.58	(25.49%)	10.81	8.06	3.34	4.37	21.33	18.15	28.67	26.04
(60.21%)	—	—	12.82	10.17	26.03%	15.92	12.01	8.83	9.86	16.51	15.55	70.84	58.04
107.50%	66.17%	75.69%	9.58	11.20	(14.46%)	2.27	3.47	2.49	2.66	39.00	57.99	7.60	13.35
7.28%	53.37%	58.82%	5.77	5.63	2.49%	6.83	8.19	2.50	2.28	13.86	13.53	15.95	20.63
(6.78%)	85.79%	88.21%	11.10	10.44	6.32%	1.74	2.40	4.26	4.38	14.34	13.44	6.61	6.55
25.64%	19.35%	21.06%	4.82	4.68	2.81%	2.00	1.54	2.39	2.58	19.94	18.05	42.76	43.38
7.10%	41.20%	49.03%	49.72	40.84	21.73%	INA	INA	2.42	3.71	32.44	26.26	30.92	64.12
25.82%	55.13%	68.96%	10.14	6.78	49.56%	INA	INA	3.66	2.28	22.86	15.00	15.29	19.68
(2.37%)	27.30%	31.25%	15.92	16.68	(4.58%)	10.14	10.19	4.56	4.74	16.22	15.29	19.87	21.98
36.73%	—	—	11.66	10.58	10.20%	3.80	2.46	4.16	5.38	14.79	9.62	8.63	11.93
(7.27%)	21.77%	0.00%	16.95	15.91	6.51%	5.54	5.55	11.57	12.45	16.18	12.90	22.85	18.41
(8.61%)	24.78%	24.78%	16.88	15.94	5.85%	5.61	7.62	2.48	2.94	13.66	14.13	30.38	42.22
(0.97%)	21.60%	21.53%	20.35	18.06	12.68%	11.71	14.18	1.25	1.67	18.32	16.94	29.18	25.61

Operational statistics

Exploration and production companies

PwC's Top 100

Company ¹³	Oil & Liquid Production bbls/d 2012	NG Production mmcf/d 2012	Total Production boe/d 2012	Total Production boe/d 2011	Change (%)	Liquids Price per bbl 2012 ^{4,7}	NG Price per mcf 2012 ⁴	Proved Reserves (mBOE) 2012 ⁵	Proved Reserves (mBOE) 2011 ⁵	Change (%)	Probable Reserves (mBOE) 2012 ⁵	Probable Reserves (mBOE) 2011 ⁵
Arcan Resources Ltd. ¹⁴	4,437	—	4,503	3,276	37.45%	82.01	2.76	23,410	21,582	8.47%	15,319	19,422
Renegade Petroleum Ltd. (🇨🇦)	3,813	1	3,930	2,491	57.78%	80.22	1.74	23,867	8,502	180.73%	9,871	4,299
Fairborne Energy Ltd. ¹¹	2,019	59	11,850	14,724	(19.52%)	77.50	2.26	16,897	44,281	(61.84%)	8,372	19,783
Calvalley Petroleum Inc. (🇨🇦) ³	2,434	—	2,434	2,081	16.96%	111.17	—	12,456	14,962	(16.75%)	12,784	14,586
Pinecrest Energy Inc. ¹⁴	3,132	—	3,142	1,348	133.17%	67.03	2.36	6,476	5,320	21.72%	6,765	3,067
Parallel Energy Trust	3,871	12	5,926	3,789	56.43%	56.28	2.75	39,705	26,625	49.13%	7,505	4,270
Delphi Energy Corp.	2,010	38	8,275	8,870	(6.71%)	90.38	2.87	23,738	25,015	(5.11%)	19,250	15,085
DeeThree Exploration Ltd.	2,739	9	4,223	1,860	126.98%	76.59	2.51	14,357	7,398	94.08%	5,830	2,296
RMP Energy Inc.	2,315	18	5,356	3,472	54.28%	80.42	2.68	14,858	14,398	3.20%	10,232	8,279
Southern Pacific Resource Corp. ^{8,14}	3,639	—	3,648	4,267	(14.51%)	63.51	3.16	120,422	120,783	(0.30%)	128,520	60,217
Arsenal Energy Inc. (🇨🇦)	2,773	6	3,723	2,231	66.88%	73.60	2.28	9,691	9,954	(2.64%)	5,209	5,768
Eagle Energy Trust (🇨🇦)	2,493	1	2,596	1,376	88.66%	62.89	2.61	10,612	3,685	187.97%	5,023	3,989
Crocotta Energy Inc.	2,227	28	6,910	5,771	19.73%	64.81	2.69	22,176	17,477	26.89%	15,937	12,051
Anderson Energy Ltd.	2,098	24	6,078	7,692	(20.99%)	70.21	2.21	10,297	20,946	(50.84%)	7,473	13,380
Novus Energy Inc.	2,371	4	3,059	1,971	55.24%	82.94	2.64	14,854	8,845	67.94%	7,862	5,712
Cequence Energy Ltd.	1,134	47	8,990	9,010	(0.22%)	69.89	2.67	46,391	35,078	32.25%	44,695	32,366
Painted Pony Petroleum Ltd.	1,548	30	6,589	4,220	56.14%	70.93	2.54	42,978	31,383	36.94%	148,165	105,494
Equal Energy Ltd. (🇨🇦) *	3,409	23	7,186	5,523	30.11%	62.02	2.95	25,873	34,853	(25.77%)	1,220	3,311
Winstar Resources Ltd. (🇨🇦) ³	1,107	2	1,495	1,650	(9.38%)	113.05	14.97	3,681	3,991	(7.78%)	7,564	7,753
Strategic Oil & Gas Ltd. (🇨🇦)	1,871	1	2,107	956	120.41%	80.69	2.46	4,017	3,215	24.95%	4,167	2,055
Pan Orient Energy Corp. (🇨🇦)	1,430	—	1,430	2,030	(29.56%)	105.42	—	405	5,993	(93.24%)	682	13,005
Suroco Energy Inc. (🇨🇦) ³	991	—	991	877	13.00%	100.92	—	1,734	958	81.00%	1,086	969
TriOil Resources Ltd.	1,563	3	2,129	1,287	65.36%	81.73	2.66	12,576	5,819	116.13%	7,960	4,430
Raging River Exploration Inc. ^{12,14}	2,211	—	2,277	—	—	77.51	2.34	11,544	—	—	5,620	—
Second Wave Petroleum Inc.	1,619	3	2,163	1,684	28.41%	67.62	2.35	6,325	5,662	11.72%	4,061	3,713
Palliser Oil & Gas Corporation ¹⁴	2,065	—	2,124	1,377	54.21%	62.51	2.26	5,579	1,762	216.61%	2,342	2,152
Rock Energy Inc.	1,836	3	2,377	3,132	(24.10%)	64.81	2.54	5,799	9,780	(40.71%)	3,087	11,768
Terra Energy Corp.	843	25	5,078	6,200	(18.10%)	75.94	2.33	13,258	17,364	(23.64%)	13,313	16,581
Sea Dragon Energy Inc. (🇨🇦) ³	1,147	—	1,147	1,082	6.01%	107.20	—	3,792	4,010	(5.44%)	2,751	1,719
Artek Exploration Ltd.	1,107	10	2,769	2,363	17.18%	66.64	2.67	17,053	12,853	32.68%	12,586	10,029
Touchstone Exploration Inc. (🇨🇦) ^{3,9}	1,159	—	1,159	421	175.30%	95.16	—	6,590	5,850	12.65%	4,953	5,029
Insignia Energy Ltd.	864	15	3,297	3,363	(1.97%)	78.36	2.55	7,187	7,384	(2.67%)	7,819	8,001
Marquee Energy Ltd.	1,194	7	2,283	1,556	46.72%	66.04	2.51	6,493	5,077	27.89%	5,452	5,836
Manitok Energy Inc.	963	9	2,389	689	246.53%	78.92	2.62	8,030	4,540	76.88%	6,833	4,281
Dundee Energy Limited (🇨🇦)	748	10	2,428	2,474	(1.87%)	72.05	3.18	12,919	12,792	0.99%	3,439	3,299
Tamarack Valley Energy Ltd.	986	7	2,166	1,069	102.59%	77.76	2.45	6,603	2,763	138.94%	4,583	2,890
Epsilon Energy Ltd. (🇨🇦) ³	32	38	6,391	3,991	60.13%	81.29	2.33	139,644	51,881	169.16%	21,141	12,623
Tethys Petroleum Ltd. (🇨🇦) ³	3,371	18	6,313	5,656	11.62%	26.80	0.91	14,842	15,591	(4.80%)	11,307	11,895
TORC Oil & Gas Ltd.	1,114	1	1,285	119	984.53%	77.56	2.78	10,526	555	1796.55%	8,394	384
Storm Resources Ltd.	864	8	2,254	542	315.93%	72.85	2.64	13,823	3,714	272.18%	13,509	4,608
Exall Energy Corporation ¹⁴	1,006	—	1,082	1,094	(1.08%)	67.52	2.75	2,569	2,048	25.44%	2,060	2,526
Hyperion Exploration Corp.	917	3	1,442	989	45.73%	66.71	2.58	4,918	3,250	51.32%	3,249	2,270
Stream Oil & Gas Ltd. (🇨🇦) ^{3,10}	1,159	—	1,159	814	42.38%	67.30	—	19,506	17,198	13.42%	8,854	4,388
Athabasca Oil Corporation	818	6	1,796	258	595.67%	70.59	3.03	62,600	41,400	51.21%	301,600	420,900
Sonde Resources Corp. (🇨🇦)	756	10	2,377	2,796	(15.00%)	67.50	2.51	5,066	6,215	(18.49%)	4,366	3,292

Notes

1. INA: Information not available
2. Data obtained from Canoils. For companies not updated in the database as at May 7, 2013 were not included in the list
3. All USD balances were translated at 0.99662 per Oanda. All USD transactional accounts were translated at 0.99964 per Oanda
4. Prices are presented after hedging
5. Reserves are gross
6. Calculated by PwC based on Cash Flow from Operations
7. Liquids Price (per bbl) is the average of Oil, NGL price (per bbl) and /or Bitumen price (per bbl)
8. Year ended June 30, 2012
9. Year ended September 30, 2012
10. Year ended November 30, 2012
11. Entity name changed to 'Santonia Energy Inc.' effective January 1, 2013
12. Year end for 2012 is for the period March 16 to December 31
13. Canadian public companies based in Canada
14. NG Production mmcf/d 2012 rounded to zero decimal.

* Reported under US GAAP

🇨🇦 Canadian companies with international operations

Change (%)	Gas Leverage based on Proved Reserves 2012	Gas Leverage based on Proved Reserves 2011	Op. Costs per boe 2012	Op. Costs per boe 2011	Change (%)	Royalties per boe 2012	Royalties per boe 2011	G&A Costs per boe 2012	G&A Costs per boe 2011	Depletion Costs per boe 2012	Depletion Costs per boe 2011	Cash Flow per boe 2012 ⁶	Cash Flow per boe 2011 ⁶
(21.12%)	4.27%	4.75%	20.08	22.35	(10.14%)	12.60	16.32	8.33	8.32	26.87	22.90	27.31	37.54
129.64%	6.75%	8.28%	14.00	15.34	(8.72%)	12.64	15.43	5.62	6.67	32.74	33.94	31.16	39.71
(57.68%)	73.46%	81.21%	7.69	8.77	(12.31%)	2.16	3.83	4.09	2.76	15.95	18.48	9.81	21.98
(12.35%)	—	—	18.15	14.35	26.48%	41.52	40.62	6.94	6.59	7.72	6.17	40.07	35.87
120.61%	1.02%	1.58%	12.26	12.29	(0.27%)	6.49	8.82	3.02	5.82	29.93	25.53	65.99	54.30
75.76%	33.56%	36.13%	7.16	7.12	0.56%	7.33	8.94	3.77	3.24	14.43	14.29	15.55	13.18
27.61%	76.56%	76.27%	7.80	6.84	13.97%	4.41	6.41	2.25	1.96	33.88	14.52	10.29	21.10
153.90%	22.39%	45.40%	10.53	14.32	(26.48%)	10.14	8.92	2.82	6.50	20.23	21.93	40.42	10.46
23.58%	56.52%	59.33%	7.97	9.56	(16.60%)	3.78	4.84	2.87	3.91	23.52	27.32	24.38	13.50
113.43%	0.00%	0.00%	10.66	10.07	5.90%	10.82	10.83	8.84	6.12	18.77	19.53	34.67	28.21
(9.69%)	15.91%	17.48%	20.28	19.44	4.33%	12.52	14.47	3.03	4.88	18.02	15.84	21.85	30.32
25.91%	9.41%	0.00%	14.48	13.16	10.06%	23.58	24.74	8.62	11.50	32.28	25.01	36.08	28.50
32.24%	68.44%	71.66%	5.83	7.85	(25.74%)	3.52	4.46	2.17	3.90	14.50	15.04	18.81	13.90
(44.15%)	56.84%	70.85%	10.90	10.52	3.59%	3.59	4.92	4.12	3.36	19.96	18.85	13.45	19.34
37.64%	18.60%	18.43%	10.30	14.70	(29.91%)	7.82	9.32	6.17	8.31	24.16	39.28	39.70	26.44
38.10%	86.16%	86.74%	7.43	9.02	(17.68%)	1.45	4.18	2.16	2.23	20.20	18.11	11.51	11.16
40.45%	84.50%	81.00%	9.85	10.72	(8.07%)	2.49	5.93	2.09	2.58	16.52	19.18	16.52	29.14
(63.16%)	53.51%	69.18%	7.78	8.39	(7.27%)	23.58	24.73	2.88	4.20	32.28	25.01	13.27	27.92
(2.44%)	28.13%	30.99%	14.94	13.31	12.32%	15.11	14.64	14.05	14.90	22.29	19.35	46.24	56.96
102.82%	14.24%	31.10%	22.29	32.54	(31.52%)	12.55	15.12	9.64	16.35	27.03	26.89	25.66	(13.05)
(94.76%)	—	—	13.37	13.16	1.63%	5.31	5.19	11.26	7.80	24.84	14.82	65.58	53.70
12.07%	—	—	60.71	45.18	34.37%	8.08	7.50	15.16	14.61	16.24	19.06	32.27	76.98
79.67%	46.00%	48.00%	13.11	16.36	(19.86%)	12.28	8.22	5.79	7.77	23.14	20.53	28.06	12.90
—	4.59%	0.00%	12.82	—	—	7.26	—	2.78	—	29.34	—	43.17	—
9.40%	21.60%	28.05%	21.29	23.40	(9.03%)	4.86	4.04	3.74	4.54	29.15	29.05	40.98	20.83
8.81%	2.13%	6.65%	23.04	31.31	(26.41%)	14.26	16.52	5.43	7.18	21.10	16.47	21.60	9.02
(73.77%)	15.88%	49.08%	24.21	22.95	5.45%	10.99	10.48	5.67	4.53	23.97	22.11	18.84	17.27
(19.71%)	80.15%	80.62%	19.13	15.03	27.27%	2.31	4.71	4.85	3.61	11.91	10.21	(3.42)	7.85
60.02%	11.13%	4.88%	8.77	7.53	16.39%	56.69	53.61	10.63	15.09	10.04	9.78	17.52	(4.70)
25.50%	73.65%	75.55%	10.13	11.61	(12.79%)	7.28	10.14	3.12	3.36	28.83	45.22	15.46	25.12
(1.51%)	—	—	16.70	24.45	(31.68%)	25.48	30.67	15.45	19.20	12.26	7.22	16.88	0.60
(2.28%)	82.51%	73.16%	10.59	10.46	1.27%	2.87	4.16	3.13	2.96	16.48	17.48	11.15	21.82
(6.59%)	39.44%	42.79%	19.50	16.16	20.67%	4.63	4.42	7.36	6.91	20.94	18.93	10.49	16.03
59.62%	63.01%	83.66%	9.14	13.71	(33.37%)	5.60	4.04	5.65	11.63	14.30	19.76	19.06	5.25
4.25%	85.82%	85.25%	15.18	14.35	5.78%	6.07	7.04	7.95	9.44	16.93	17.09	8.86	17.20
58.61%	36.22%	54.93%	12.10	10.16	19.11%	3.39	1.77	3.97	7.33	24.12	25.78	17.60	24.98
67.48%	99.91%	23.27%	6.18	7.00	(11.73%)	INA	INA	1.54	2.55	10.13	3.36	12.23	3.83
(4.95%)	40.39%	29.72%	5.61	5.16	8.66%	INA	INA	8.51	9.46	7.97	6.28	0.59	(6.01)
2085.94%	26.95%	26.95%	12.83	9.36	36.98%	7.06	6.77	7.68	62.62	42.14	45.73	18.15	(13.87)
193.14%	71.14%	80.46%	11.48	8.09	41.86%	4.36	2.06	4.49	13.35	16.45	17.30	13.88	0.61
(18.47%)	3.19%	7.88%	12.88	10.55	22.11%	13.99	22.84	4.90	4.18	24.01	18.99	45.38	42.55
43.08%	44.42%	43.01%	10.73	11.42	(6.04%)	6.70	9.97	6.14	7.17	20.79	18.93	27.69	25.41
101.80%	8.99%	3.38%	21.31	20.77	2.61%	INA	INA	7.51	9.74	7.61	6.84	31.43	29.26
(28.34%)	11.44%	4.43%	16.47	16.36	0.67%	2.02	6.32	76.55	299.62	38.20	33.47	(61.85)	(164.87)
32.62%	72.94%	75.87%	19.74	15.21	29.73%	(3.78)	(4.40)	9.78	10.43	12.68	14.61	1.25	5.00

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