

2019 President's Message to Shareholders

This is the Company We've Built

FINANCIAL HIGHLIGHTS

(thousands of dollars except per share data, numbers of shares and kilometres of seismic data)	Three months ended December 31,		Years ended December 31,	
	2018	2017	2018	2017
Revenue – Data library sales	4,313	5,449	10,188	43,525
Amortization of seismic data library	1,811	1,958	7,337	15,870
Net earnings (loss)	1,024	1,311	(1,730)	15,087
Per share basic and diluted	0.02	0.02	(0.03)	0.27
Cash provided by operating activities	2,457	2,080	(3,250)	38,755
Per share basic and diluted	0.05	0.04	(0.06)	0.70
Cash EBITDA ^(a)	3,209	3,791	5,037	37,070
Per share – basic and diluted ^(a)	0.06	0.07	0.09	0.67
Shareholder free cash flow ^(a)	2,616	3,301	4,671	29,729
Per share – basic and diluted ^(a)	0.05	0.06	0.09	0.54
Capital expenditures				
Seismic data purchases, digitization and related costs	-	1,450	62	1,575
Property and equipment	9	8	18	48
Total capital expenditures	9	1,458	80	1,623
Special dividend paid	-	10,915	-	10,915
Weighted average shares outstanding				
Basic and diluted	53,793,317	54,404,433	53,838,106	55,135,035
Shares outstanding at period-end			53,793,317	54,020,817
Seismic library at year-end				
2D in kilometres			450,000	447,000
3D in square kilometres			28,956	28,956

FINANCIAL POSITION AND RATIO AT YEAR-END

(thousands of dollars except ratio)	December 31, 2018	December 31, 2017
Working capital	25,804	22,486
Working capital ratio	15:1	3:1
Cash and cash equivalents	23,016	27,422
Total assets	38,847	51,693
Shareholders' equity	35,238	37,810

(a) These non-GAAP financial measures are defined, calculated and reconciled to the nearest GAAP financial measures in the Management's Discussion and Analysis



It is with great pleasure that I send out this year's Message to Shareholders. These past four years have been a grind for Canada's oil and natural gas sector, and Pulse's shareholders have required patience and faith in Pulse's prudent management and financial discipline as we sought the transformational acquisition needed to lift our Company to the next level. Last year we entered discussions with another seismic data library company, and Pulse's management team worked diligently to advance to an agreement. Early in the new year Pulse closed the acquisition of Seitel Canada Ltd., then the largest pure-play company in the licensing of seismic data to western Canada's oil and natural gas sector.

The counter-cyclical deal more than doubles the size of Pulse's seismic data library, to approximately 65,310 net square km of 3D data and approximately 829,207 net km of 2D data, achieving our long-stated objective of having the largest licensable seismic data library in Canada. Because the ability to meet potential customers' needs is a function of having the right seismic coverage in the right places, adding the Seitel data also doubles Pulse's set of future sales opportunities. Pulse is a cash-based business and the data library is our main cash-producing asset. More data over more land area strengthens the chances of providing customers with what they need, increasing Pulse's revenue-generating capacity.

We have thereby positioned Pulse to benefit from the longer-term recovery of western Canada's energy sector through a large strategic acquisition achieved at what we genuinely believe is once-in-a-generation valuation.

2018 in Review

While we entered last year with considerable optimism, it will now come as no surprise to read that 2018 proved a terrible year for Canadian energy producers and, consequently, brought record-low sales for Pulse. Seismic data library sales declined to \$10.2 million, most of which were regular or traditional sales, as only 9 percent of total sales were transaction-based sales (those unfamiliar with these terms should turn to the discussions in our MD&A for the year ended December 31, 2018 and our 2018 Investment Guide).

With investment uncertainty in Canada increasing on every level - culminating with the official curtailment of Alberta's oil production in an attempt to grapple with the failure to achieve greater oil export capacity - domestic and international investors alike turned away from the sector. Starved of investment capital, the industry's field activity continued to fall as earlier cautiously optimistic forecasts were reduced, dampening Pulse's regular sales. International companies concluded that the time was wrong to enter or expand their presence in Canada's energy sector. Merger-and-acquisition activity drives our transaction-based sales by triggering relicensing of previously licensed data. The overall value of industry transactions had been forecast to increase from the \$43 billion recorded in 2017, but it instead fell to approximately \$12 billion in 2018.

Pulse met the challenge through its proven approach of financial discipline. We maintained our low cost structure, which includes a proficient head office team of 17 people, and further lowered costs by moving to less expensive offices. Having repaid all debt in 2015 we maintained our clean balance sheet with a strong cash position. Following payment of the special dividend of \$0.20 per share in the fourth quarter of 2017 associated with that year's record transaction-based sale, we reconfirmed our policy of suspending the regular quarterly dividend, holding back over \$20 million in cash and thereby preserving capital to fund future growth. Shareholders were universally supportive of this approach. Last year, we also spent only \$673,000 on share buybacks under our normal course issuer bid. Despite an environment in which some would be tempted to lower sales prices, we maintained Pulse's data integrity by limiting discounts, choosing to sell less data at better pricing.

Industry seismic survey activity fell to a record low, to near-dormancy in fact, and there were virtually no opportunities for Pulse to lead participation surveys. We also looked at acquiring a number of small databases, but could not achieve our required valuation. We were also determined not to branch out into a non-core business, but to remain a pure-play seismic data library provider focused on Western Canada. Despite the drumbeat of bad news last fall, Pulse's sales picked up towards year-end, with the fourth quarter accounting for \$4.3 million or 42 percent of the year's sales. Low costs are key to Pulse's high cash margin, and even last year we achieved a cash margin of 49 percent, compared to our five-year average of 76 percent.

Accordingly, thanks to sticking with its proven approach, Pulse in a record low sales year still generated \$4.7 million or \$0.09 per share of shareholder free cash flow. Shareholder free cash flow is what Pulse can freely allocate to grow its data library, pay down debt principal, return capital to shareholders through the repurchase of common shares, and pay dividends to shareholders. (For more on this, please see Pulse's 2018 Investment Guide or our MD&A for the year ended December 31, 2018.)

In sum, Pulse was superbly positioned in a difficult environment to conduct the largest transaction in its history. For while the overall economic situation was frustrating and even distressing, it created opportune conditions. While we never wish hardship upon anyone, this is what it means to be "counter-cyclical". If there had been no downturn, competitors would be thriving and there would be no motivated vendors nor any attractive valuations – let alone the transformative deal Pulse had been seeking for a decade.

The Deal

For many years Seitel Canada Ltd. provided Canada's largest library of licensable seismic data, growing aggressively by shooting its own 3D data in active play areas. Pulse had wished to acquire Seitel for quite some time. I would say that the combination of the extended industry downturn and a change in ownership of Seitel's U.S. parent company last year improved the prospects for a transaction.

Pulse's overarching desire was to position itself for a longer-term industry recovery, at valuations that would set us up for success in the emerging environment. Bluntly, while others appeared to be giving up on Canada, we were casting a vote of confidence in the producing sector's long-term future. This was, for us, the optimum set of conditions to bring home the deal.

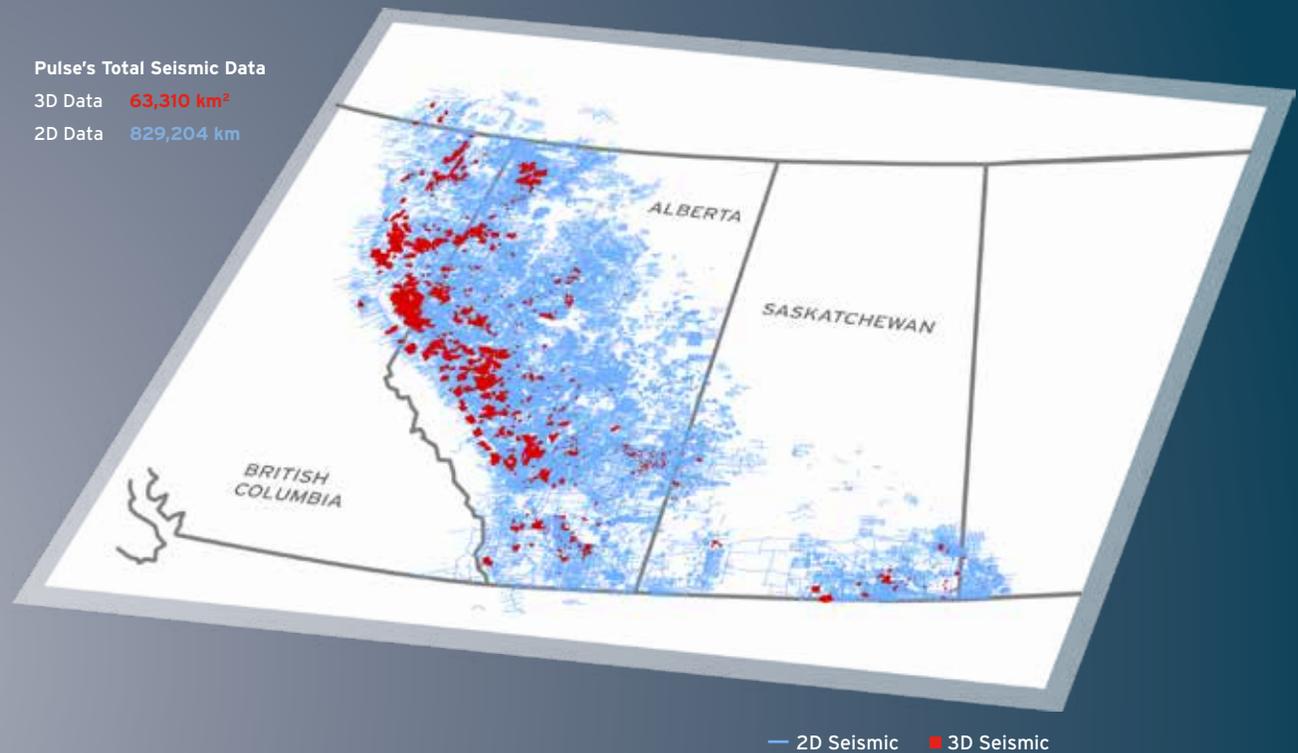
We did, however, expect the short term to remain difficult, probably as bad as last year and perhaps even worse. So we structured the acquisition financing to have low principal repayments and favourable debt-to-EBITDA covenants. Combined with our absence of debt going in, our strong cash position, low costs, lack of a dividend and continued shareholder free cash flow amidst record low sales, we were confident that we were properly managing the acquisition's financial risk.

For \$53.6 million cash (plus up to \$5 million more based on sales over the next two years), we have acquired 36,354 net square km of 3D seismic data, enlarging our most valuable asset by 126 percent, and 379,207 net km of 2D seismic data, increasing our 2D data by 84 percent. (For further details please see the January 15, 2019 press release or the MD&A for the year ended December 31, 2018.) The 3D data, from which most of the revenue will likely be generated, is complementary, having minimal overlap with Pulse's 3D data, while the widely spread 2D data is also complementary for the most part, with slightly more overlap than the 3D.

The valuation is very favourable, with the price per square km being approximately one-third the price Pulse paid in its Divestco acquisition in 2010. The Divestco metrics amounted to an estimated 10 percent of the costs of shooting new data. The valuation of the Seitel acquisition, at \$1,600 per square km (with zero value assigned to the 2D data), amounts to perhaps 3-5 percent of shooting costs. While the two libraries have been largely depreciated in balance sheet terms, their replacement value is, therefore, in the billions of dollars. We formerly

provided an estimated replacement value for Pulse's data library, but the figure for the combined library would be so large that it no longer sounds credible. Certainly, replicating Pulse's data library would take decades of work. And a quick reminder for newcomers to the Pulse story: our seismic library consists of data-pure information – not software. It does not become obsolete, deteriorate or expire, and it can be relicensed and reused an indefinite number of times.

Canada's Largest Licensable Seismic Data Set



The Acquired Data

The new data dramatically expands Pulse's overall footprint – to an incredible 16.1 million acres – encompassing nearly all of the currently active unconventional play areas that are targeting mainly light oil and natural gas rich in liquids such as ethane, propane, butane and condensate, and that accordingly are economic at current commodity prices.

Key play coverage is as follows:

- Montney 16,336 km²
- Cardium 8,994 km²
- Viking 3,036 km²
- Horn River 2,980 km²
- Duvernay 2,856 km²
- Bluesky 2,263 km²
- Bakken 1,535 km²

While the reader's eye is likely to be drawn to the Duvernay, Montney and Cardium, there are many other active plays, as producers apply the formerly unconventional but now standard techniques of long-leg horizontal drilling and multi-stage hydraulic fracturing to more and more reservoirs, including many long considered spent or intrinsically uneconomic. The plays cited are only the most famous – there are dozens of others.

The acquired 3D blocks range from far northeastern B.C. – the primary supply area for natural gas targeted at the planned and approved LNG export facility at Kitimat, B.C. – all along the Foothills of the Rocky Mountains, and far out onto the Prairies. The 3D data was largely shot under Seitel's direction over the past 15 years, rather than by an individual exploration and production (E&P) company. This means it was acquired as multi-horizonal data, i.e., not just aiming at a single zone of immediate interest to a producer. This maximizes the data's long-term usefulness and prospects for re-sale over the long term, and is in line with how Pulse also has chosen to conduct its 3D surveys.

Seitel had started out similarly to Pulse, buying a large legacy 2D/3D dataset from a multinational E&P company. So the acquired 2D data, as is typical, is generally older and, combined with Pulse's 2D data, covers the large majority of western Canada's prospective oil and natural gas lands. People are almost always surprised to learn that 2D data – the individual seismic lines that provide a "slice" or sectional view of the underlying geology - is still useful, and still sells. But it is, and it does. Pulse continues to make material sales from this fully depreciated data.

Given the producing sector's current focus, we are geographically very well-positioned to make new sales. At bottom, however, surprise is built into the oil and natural gas industry's very nature. The unpredictable is normal. We simply can't tell what data will sell, or how much of it. The E&P sector routinely delivers surprises as discoveries are made, companies try bold or visionary new things, technological breakthroughs make previously uneconomic areas drillable, government policies become more favourable to a particular type of activity, and many other factors.

This means that, above all, "being there" is the key criterion for a seismic data library provider. You have to have as much coverage as possible, including over areas that have seen little or no recent activity. To take a couple of very simplified examples: barely a dozen years ago the long-producing Cardium reservoir was considered all-but played out, while the Duvernay was almost universally regarded as unlikely ever to produce commercially. What would be the point of having licensable seismic coverage over those two plays? Today, the question answers itself. So while Pulse just doesn't have visibility as to what will sell, or how much of it, we do know that having more data positions the provider to make more sales. We are used to this uncertainty, we live with it and we do business under it. We have honed our balance sheet and spending habits accordingly, and we don't predict sales or provide guidance.

One other point on the Seitel data. Like Pulse, the company's policy was to license its data to one user at a time. Partners needing the data had to license it separately, and the licensing rights did not follow any change in control of the licensee or the asset the data covered. This protected the data's owner and created opportunity for transaction-based sales. This approach fits Pulse's way of doing business, making it preferable to purchasing a proprietary dataset from an E&P company, in which multiple unlicensed copies of the data can already be in the hands of other producers, reducing the pool of potential future customers.

Pulse's Go-Forward Position

We have doubled the size of our primary asset and our revenue-generating potential with minimal increase in our G&A or operating costs. That is a true demonstration of synergy. We intend to pay down debt, continue to manage Pulse's finances conservatively and remain stringent in assessing potential new opportunities. Pulse's management team is pleased with the Company's financial position and go-forward cost structure, and confident in its ability to handle its indebtedness in the current economic environment.

Outlook

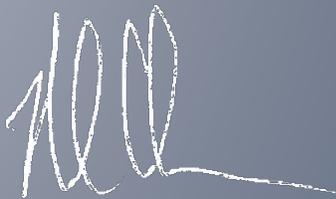
I'm pleased to report that, despite current conditions, we have made sales in the first quarter from both datasets. We are, however, very cautious about the coming year and do not expect an industry rebound. Not only are the industry signals generally weak, the situation is so dominated by shifting political and regulatory affairs – including looming elections in Alberta and federally – that it would be foolish to attempt even broad predictions. An industry rebound will depend on some combination of export pipeline approvals, LNG projects proceeding, political resolution of seemingly intractable issues and better government tax and industry policies – all without another downturn in commodity prices.

Accordingly, it bears repeating that the Company has been structured to survive and even grow through all phases of the industry cycle. We have clearly demonstrated that our business is strong, that our model works, that our capabilities meet our aspirations, and that our rhetoric reflects reality. The data library is digitally stored, incurring minimal maintenance costs. Our low cost structure and the immense coverage of our seismic database make Pulse's revenue, cash margin and shareholder free cash flow highly levered to any uptick in industry field activity and demand for seismic data.

In short: Pulse's sales are almost limitlessly scalable without either capital investment or higher operating costs. Our costs will remain low, and a transaction-based sale of any size could occur at any time. Our larger size and greatly expanded coverage only increase these advantages. Pulse is amply able to weather additional short-term weakness, while positioned in and confident of a longer-term recovery in western Canada's oil and natural gas sector. This is the Company we have built: Canada's largest pure-play seismic library data provider. We are prouder than ever of it.

I extend sincere thanks to Pulse's great team for their tremendous work over the past year and for continuing to believe in our industry, to the Board of Directors for its sure-footed and clear-headed guidance through turbulent times, and to Pulse's shareholders for their patience, vision and dedication to our future prospects.

On behalf of the Board of Directors,

A handwritten signature in black ink, appearing to read 'Neal Coleman', with a long horizontal flourish extending to the right.

Neal Coleman
President, Chief Executive Officer and Director

April 5, 2019



www.pulseseismic.com