

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,	
	2021	2020	2021	2020
Revenue				
Data library sales	16,172	5,142	48,717	11,011
Other revenue	133	81	433	338
Total revenue	16,305	5,223	49,150	11,349
Amortization of seismic data library	2,500	2,493	10,010	11,348
Net earnings (loss)	8,158	287	21,514	(6,786)
Per share basic and diluted	0.15	0.01	0.40	(0.13)
Cash provided by operating activities	4,010	752	29,799	3,814
Per share basic and diluted	0.07	0.01	0.55	0.07
Cash EBITDA ^(a)	13,936	4,200	42,696	7,553
Per share basic and diluted ^(a)	0.26	0.08	0.79	0.14
Shareholder free cash flow ^(a)	10,828	2,977	32,082	5,346
Per share basic and diluted ^(a)	0.20	0.06	0.60	0.10
Capital expenditures				
Seismic digitization and related costs	62	96	350	383
Property and equipment	—	—	8	7
Total capital expenditures	62	96	358	390
Weighted average shares outstanding				
Basic and diluted	53,791,997	53,793,317	53,792,984	53,793,317
Shares outstanding at period-end			53,784,717	53,793,317
Seismic library				
2D in kilometres			829,207	829,207
3D in square kilometres			65,310	65,310

Financial Position and Ratios

(thousands of dollars except ratios)	December 31, 2021	December 31, 2020
Working capital	9,749	5,601
Working capital ratio	2.7:1	3.6:1
Total assets	52,899	56,742
Long-term debt	2,265	27,715
Cash EBITDA ^(a) for the years ended December 31	42,696	7,553
Shareholders' equity	44,141	25,266
Long-term debt to cash EBITDA ratio	0.05	3.67
Long-term debt to equity ratio	0.05	1.10

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

Management's Discussion and Analysis of Financial Condition And Results Of Operations

Year Ended December 31, 2021

The Annual Meeting of Shareholders of Pulse Seismic Inc. will be held on Thursday, April 21, 2022 at 3:00 p.m. MDT at the Calgary Petroleum Club, located at 319 – 5th Avenue S.W., Calgary, Alberta.

Contents

Overview	2	Financial Summary of Quarterly Results	13	Non-GAAP Financial Measures and Reconciliations	18
Covid-19 Impact on the Company's Operations and Risks	3	Selected Annual Financial Information	14	Financial Instruments	20
Corporate Update	4	Traditional Sales vs. Transaction-Based Sales: Ten-Year History	14	New IFRS Standards	21
Key Performance Indicators	4	Contractual Obligations	15	Critical Accounting Estimates	22
Acquisition of Seitel Canada Ltd.	5	Liquidity, Capital Resources and Capital Requirements	15	Disclosure Controls and Procedures (DC&P) and Internal Controls over Financial Reporting (ICFR)	23
Seismic Revenue Fluctuations	5	Non-Capital Resources	18	Risk Factors	23
Outlook	5			Additional Information	26
Discussion of Operating Results	6			Forward-Looking Information	26
Review of Financial Position	10				

The following Management's Discussion and Analysis (MD&A) of the financial condition and results of operations of Pulse Seismic Inc. ("Pulse" or the "Company") for the year ended December 31, 2021 was prepared taking into consideration information available to February 17, 2022 and is supplemental to the audited consolidated financial statements and related notes for the year ended December 31, 2021. Throughout this MD&A reference will be made in the text and tables to "2021", which refers to the year ended December 31, 2021, and to "2020", which refers to the year ended December 31, 2020.

The consolidated financial statements were prepared in accordance with International Financial Reporting Standards (IFRS) with comparative figures for the prior year. Certain comparative figures were reclassified to conform to the current year's presentation. The consolidated financial statements and the MD&A were reviewed by Pulse's Audit and Risk Committee and approved by Pulse's Board of Directors. All financial information is reported in Canadian dollars. This MD&A discusses matters which Pulse's management considers material. Management determines whether information is material based on whether it believes a reasonable investor's decision whether or not to buy, sell or hold shares in the Company would likely be influenced or changed if the information were omitted or misstated. Readers should also read the cautionary statement in "Forward-Looking Information".

Overview

ABOUT PULSE

Pulse is a market leader in the acquisition, marketing and licensing of two-dimensional (2D) and three-dimensional (3D) seismic data for the energy sector in Western Canada. Seismic data is used by oil and natural gas exploration and development companies to identify portions of geological formations that have the potential to hold hydrocarbons, as well as by companies exploring for non-traditional forms of energy and related resources, for example helium and lithium, that utilize advanced geophysics to maximize the probability of project success. Seismic data is used in conjunction with well logging data, well core comparisons, geological mapping and surface outcrops to create a detailed map of the Earth's subsurface at various depths.

Pulse owns the largest licensable seismic data library in Canada, currently consisting of approximately 65,310 net square kilometres of 3D seismic and 829,207 net kilometres of 2D seismic. The library extensively covers the Western Canada Sedimentary Basin (WCSB), where most of Canada's oil and natural gas exploration and development occur.

Pulse calculates net kilometres of 2D data and net square kilometres of 3D data by multiplying the number of kilometres of seismic data in each 2D line and the number of square kilometres of seismic data in each individual 3D seismic dataset by Pulse's percentage of ownership in each.

SEISMIC DATA

Seismic data is an essential part of the oil and natural gas exploration and development process. Companies engaged in oil and natural gas exploration and development use seismic data to assist in exploring for and developing new reserves and in establishing the extent of existing reserves. In acquiring seismic data, acoustical energy waves are transferred from an energy source at or near the surface of the Earth to the subsurface. The seismic waves reflect off various geological beds or strata in the Earth's subsurface. Sophisticated sensors and recording instruments at the surface collect the reflected waves and convert them to digital form. The data is subsequently processed and an image of the subsurface formations is created, providing explorationists with valuable insight into the potential of a particular area to yield oil or natural gas reserves, and assisting in the selection of drilling locations.

2D SEISMIC

2D seismic data is measured in linear kilometres and after processing provides a sectional illustration of geological formations directly below the line on which the data was acquired. 2D seismic can extend over a distance spanning many kilometres. Intersecting 2D lines can enable explorers to map large pools of oil and natural gas, but without the precision required for smaller or more complex targets. Exploration companies typically use 2D seismic to get a sense of the regional geology of an area they think is prospective for oil and natural gas. 2D seismic data continues to be used to generate regional leads and prospects in oil and natural gas exploration areas.

3D SEISMIC

3D seismic data is measured in square kilometres and after processing provides map-like overhead views as well as three-dimensional visualizations of the subsurface geology. 3D seismic data is shot in grids, generating a three-dimensional image of the subsurface. 3D seismic data enables a more precise definition of geologically complex targets, facilitating precise placement of oil and natural gas wells. 3D seismic is generally used to zero-in on a discrete area of geological interest initially identified with 2D seismic. 3D seismic data is particularly important for horizontal drilling, unconventional plays (such as shale gas and tight sands) and complex conventional drilling. Typical 3D seismic surveys cover an area anywhere from a few square kilometres to several hundred square kilometres.

MISSION AND STRATEGY

Pulse is a pure-play seismic data library company focused on the acquisition, marketing and licensing of seismic data to the western Canadian oil and natural gas and new energy sectors. The Company's business model is designed to generate a growing stream of cash flow by repeatedly licensing the data in its seismic data library to oil and natural gas companies and more recently to companies exploring for non-traditional forms of energy.

Pulse is working with partners to explore the use of sophisticated processing technologies that provide advanced interpretation and visualization of seismic data to reduce the geological and drilling risks in exploring for subsurface targets.

The application of such technologies is intended to increase the attractiveness and range of uses of Pulse's seismic dataset for existing and potential new customers. These include companies in emerging energy-transition projects such as lithium, carbon capture and sequestration, and geothermal, as well as helium resource extraction and Pulse's traditional core focus of oil and natural gas development. The Company recently increased its in-house technical capability to support this initiative, which will not require material capital investment. Pulse is partnering with third parties to evaluate the range of potential applications with the intention to enhance its sales and marketing activities.

Current seismic processing and visualization software allows historical 2D and 3D data to be reprocessed and reinterpreted, thereby maintaining the technical usefulness and marketability of historical data and, through repeated licensing sales, generating recurring revenue. The Company is continuously seeking and evaluating opportunities to expand its data library by acquiring high-quality 2D and 3D datasets that cover some of western Canada's most prospective current exploration regions, are complementary to its current library, and are available at favourable valuations.

Pulse's strategy is to pursue growth opportunities that meet its financial and technical criteria while maintaining a low cost structure.

ECONOMIC ENVIRONMENT AND SEISMIC INDUSTRY

Pulse has been successful throughout prior commodity price cycles, due to its low cost structure, access to capital for funding growth initiatives and ability to generate a high level of shareholder free cash flow relative to revenue. Shareholder free cash flow is a non-GAAP measure that the Company considers important in evaluating its financial performance.

Pulse's success depends on its ability to provide seismic coverage over the geographical areas associated with certain geological development areas or "play types" that the exploration and development sector focuses on in a given period. Activity in various plays is driven by commodity prices, geological understanding, the economic application of available and improving technologies and the availability of oil and natural gas processing and transportation egress ("take-away") capacity at reasonable cost. Pulse has worked diligently through the years to enlarge its coverage.

The oil and natural gas exploration and development industry currently is mainly targeting natural gas reservoirs that are high in natural gas liquids and light crude oil, lying in unconventional shale and less-permeable or tight formations. 2D and 3D seismic data are important tools for these plays. 2D seismic data is used to map the regional faults in shale gas prospects and 3D seismic data is used to map the exact contours of variable reservoirs, as well as small-scale fractures in shale formations, to plan accurate paths for horizontal wells.

Pulse's business results depend to a large extent on the level of capital spending on exploration activities by oil and natural gas companies. A sustained increase or decrease in the price of natural gas or crude oil, therefore, which could have a material impact on exploration activities, could also materially affect the Company's revenue, financial position, results of operations, cash EBITDA and shareholder free cash flow. The relationship is not direct, however, and the Company has generated high revenue in periods of weak oil and natural gas prices and vice-versa.

COVID-19 Impact on the Company's Operations and Risks

Ongoing uncertainty caused by the global pandemic continues to influence global oil and natural gas demand and commodity pricing. These factors may continue affecting business conditions for the Company.

If these conditions persist for an extended period, there may continue to be adverse impacts on the Company, including but not limited to:

- Declines in revenue and cash flows as the Company's customers, which are concentrated in the oil and natural gas industry, reduce capital budgets and field activities; and
- Non-performance by the Company's customers, in turn resulting in non-payment of accounts receivable and customer defaults.

In the fourth quarter of 2021, the Company benefited from the Canada Emergency Wage Subsidy (CEWS) in the amount of \$5,000, bringing the total benefit to \$312,000 in 2021. All amounts were received by December 31, 2021. In the fourth quarter of 2021, the Company also benefited from the Canada Emergency Rent Subsidy (CERS) in the amount of \$7,000, bringing the total benefit to \$315,000 in 2021. All amounts were received by December 31, 2021.

The situation surrounding COVID-19 evolved significantly in 2021 with the widespread availability of vaccines. The Company continues to monitor administrative and operating expenses and capital spending plans closely. As noted above, the Company also received government subsidies under both the wage and rent subsidy programs in 2021 and 2020.

Since March 2020, Pulse has consistently encouraged its employees to follow the guidance of health authorities, and it has maintained compliance with the Government of Alberta's COVID-19 public health restrictions. The restrictions, including limiting person-to-person contact in the office setting, have shifted over time to align with government efforts to manage hospital capacity. Pulse's business is supplying licences to a digitally-based product, seismic data and, as a result, the hybrid work situation has supported business continuity. The Company's top priorities continue to be the safety of its employees and generating data sales while keeping costs low and improving the balance sheet as Pulse continues to navigate uncertain times.

Corporate Update

On December 21, 2021, the Company announced it had renewed its revolving credit facility and extended the maturity date for two years to January 15, 2025. The facility's available borrowing amount remains at \$25.0 million and all other major terms, including financial covenants, are unaffected by the renewal.

At the end of 2020 Pulse owed a total of \$28.0 million in long-term debt, consisting of \$18.0 million owing on the senior revolving credit facility and \$10.0 million in subordinated debt to a third party. In June 2021, the subordinated debt was fully repaid. The majority of the remaining balance on the revolving facility was repaid in the fourth quarter. In January 2022, the revolving facility balance was fully repaid.

On November 29, 2021 the Company made \$2.8 million in dividend payments including a \$0.04 per share special dividend and the first of a \$0.0125 reinstated regular quarterly dividend.

Also, on October 29, 2021, the Company received TSX approval for a normal course issuer bid (NCIB) to purchase up to 3,097,433 common shares from November 2, 2021 to November 1, 2022. Management believes that its common shares may from time to time be undervalued and that such purchases are in the interests of the Company and its shareholders. The NCIB is an integral part of Pulse's capital allocation strategy.

Key Performance Indicators

The key performance indicators used by Pulse's management to analyze business results are seismic data library sales, net earnings, cash EBITDA and shareholder free cash flow. The definitions, calculations and reconciliations of cash EBITDA and shareholder free cash flow to the nearest GAAP financial measures are provided in "Non-GAAP Financial Measures and Reconciliations".

Results for the key performance indicators for the three months and year ended December 31, 2021, with comparative figures for 2020, are set out in the following table:

(thousands of dollars except per share data)	Three months ended December 31,			Years ended December 31,		
	2021	2020	Variance	2021	2020	Variance
Data library sales	16,172	5,142	11,030	48,717	11,011	37,706
Other revenue	133	81	52	433	338	95
Total seismic revenue	16,305	5,223	11,082	49,150	11,349	37,801
Net earnings (loss)	8,158	287	7,871	21,514	(6,786)	28,300
Per share basic and diluted	0.15	0.01	0.14	0.40	(0.13)	0.53
Cash generated by operating activities	4,010	752	3,258	29,799	3,814	25,985
Per share basic and diluted	0.07	0.01	0.06	0.55	0.07	0.48
Cash EBITDA	13,936	4,200	9,736	42,696	7,553	35,143
Per share basic and diluted	0.26	0.08	0.18	0.79	0.14	0.65
Shareholder free cash flow	10,828	2,977	7,851	32,082	5,346	26,736
Per share basic and diluted	0.20	0.06	0.14	0.60	0.10	0.50

Pulse had an excellent year in 2021, largely driven by transaction-based sales related to exploration and production industry consolidation, as announced in the 2021 sales update on December 13. Pulse generated the second-highest annual seismic data library sales in its history after the record \$64.0 million achieved in 2012.

The increase in 2021 data library sales from 2020 is the main factor contributing to the period-over-period increase in all of the Company's key performance metrics.

For the three months ended December 31, 2021, Pulse generated \$16.3 million of revenue compared to \$5.2 million for the same period in 2020. The fourth quarter of 2021 included delivery of the remaining data from a \$17.0 million deal signed in May. At that time, the Company delivered \$7.3 million of seismic data, with the remainder to be selected by the customer prior to April 15, 2022. In December 2021, the remaining data was delivered to the customer resulting in the recognition of an additional \$9.7 million of seismic data sales revenue.

For the year ended December 31, 2021, Pulse generated \$49.2 million of revenue compared to \$11.3 million for the same period in 2020. The 2021 fourth quarter's revenue included \$9.8 million in transaction-based data library sales related to mergers and acquisitions compared to \$4.6 million for the same period in 2020.

In 2020 the Company experienced low data library sales. The COVID-19 pandemic and the collapse of commodity prices in the first quarter caused Pulse's customers to further reduce capital expenditures in Canada through the year.

Acquisition of Seitel Canada Ltd.

On January 15, 2019 the Company acquired Seitel Canada Ltd (Seitel). The acquisition more than doubled the size of the Company's seismic data library, making it the largest provider of licensable seismic data to the oil and natural gas industry in the Western Canada Sedimentary Basin.

Seismic Revenue Fluctuations

Revenue fluctuations are a normal part of the seismic data library business, and data library sales can vary significantly year-over-year.

Traditional data library sales can occur at any time. This is due to the nearly continual changes in oil and natural gas industry conditions.

Transaction-based sales can also occur at any time. This is due to corporate merger-and-acquisition, joint venture and asset disposition activity involving Pulse's customers, which is unpredictable.

Outlook

Building on the oil and natural gas industry's strong finish to 2021, the current positive forecasts for commodity prices, global energy demand, capital investment, drilling and production, along with an improving outlook on pandemic management, led Pulse to anticipate a continuing recovery in western Canada's energy industry in 2022. With zero debt, a low cost structure, high cash EBITDA margin of 87% percent in 2021, no capital spending commitments, access to credit on favourable terms, Canada's largest licensable seismic data library and strong customer relations, the Company is favourably positioned to benefit from growing strength in industry conditions.

Following an estimated \$16.0 billion in Canadian oil and natural gas industry merger-and-acquisition (M&A) activity in 2021, the driver of transaction-based sales, Pulse anticipates continued M&A deal flow this year. The Company's sales revenue of \$48.7 million in 2021 was largely achieved through transaction-based sales, and Pulse anticipates this again to be the main source of sales in 2022. M&A transactions do not, however, provide visibility as to the timing or value of associated demand for seismic data, so as always Pulse cautions that a transaction-based data library sale of any size can occur at any time.

With benchmark WTI crude oil having recently risen above US\$90 per barrel, and intra-Alberta natural gas priced above \$4.50 per gigajoule in early February, forecasts for oil and natural gas prices remain buoyant for 2022 and industry confidence continues to strengthen. While inflation is a significant global issue and there are recessionary signs in some countries, inflationary environments generally drive higher commodity prices. Favourable commodity pricing encourages industry capital investment, drilling and production, along with new-company formation. In late November the Canadian Association of Oilwell Drilling Contractors issued an initial drilling forecast of 6,457 wells for 2022, an increase of 27 percent from 2021 and 96 percent from 2020. Provincial mineral lease auctions or “land sales”, a traditional leading indicator of field activities, extended the rebound begun in 2021, with sales in Alberta totalling \$37.8 million in January 2022 compared to only \$4.5 million the previous January, and a total of \$104.2 million for all of 2021 in Alberta.

All of these factors, in turn, imply industry demand for seismic data, the driver of Pulse’s traditional data library sales. Still, Pulse as always must caution that there is no direct linkage between industry field conditions and demand for seismic data and, accordingly, Pulse has innately poor visibility as to future traditional sales.

While Pulse is optimistic about the year ahead, the past several years have demonstrated that virtually anything can happen at any time – including record-setting lows and highs in business results. Accordingly, Pulse remains focused on the business practices that have enabled the Company to navigate and thrive through the full range of conditions: maintaining a strong balance sheet with access to credit on favourable terms, careful management of cash resources including distributing cash to shareholders when it is prudent to do so, a low cost structure, a disciplined and rigorous approach to growth opportunities, an experienced and capable management team, and excellent customer care complemented by the current initiative to enhance the attractiveness of the seismic data library for broader application in both traditional and new-energy exploration and development.

Discussion of Operating Results

SUMMARY FOR YEAR ENDED DECEMBER 31, 2021

NET EARNINGS (LOSS) BEFORE INCOME TAXES

Pulse generated earnings before income taxes of \$30.2 million (\$0.56 per share basic and diluted) in 2021 compared to a loss before income taxes of \$6.6 million (\$0.12 per share basic and diluted) for 2020.

DATA LIBRARY SALES

Data library sales are conducted under various types of sale contracts. These are classified as data library sales, library cards (discount agreement, paid on predetermined payment terms with periods of up to one year to select data), commitment cards (discount agreement, paid when data is selected and delivered within a one-year period) and review-and-possession agreements (client is provided with data to review and selects a portion of this data to license long-term, with the agreement often having set payment terms). Pulse plans to continue providing customers with a variety of contract options in order to maximize future data library sales. The unearned portion of a contract’s value is deferred until Pulse’s revenue recognition criteria are met, with data library sales revenue being recognized upon delivery of seismic data to the customer.

Data library sales consist of traditional sales and transaction-based sales. There are three main types of transaction-based sales: corporate merger or acquisition sales, partnership or joint venture sales, and asset disposition-related sales. For further information on transaction-based sales, see “Traditional Sales vs. Transaction-Based Sales: Ten-Year History”.

For 2021, seismic data library sales were \$48.7 million compared to \$11.0 million in 2020. In 2021, the Company generated \$35.8 million of transaction-based data library sales (all related to mergers and acquisitions), compared to \$6.7 million in 2020. The Company also generated \$12.9 million of traditional data library sales, compared to \$4.3 million in 2020.

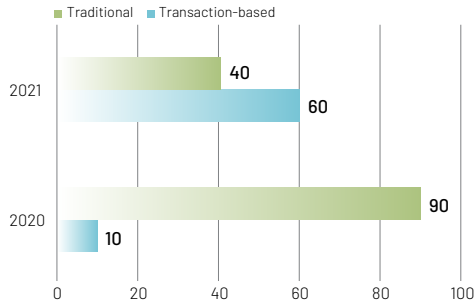
As explained above, the year-over-year increase in data library sales is due to the improvement in commodity prices and industry consolidation in 2021.

DISAGGREGATED DATA LIBRARY SALES BREAKDOWN

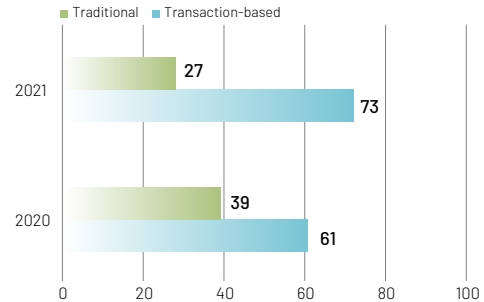
Pulse uses three ways to disaggregate its data library sales. The following graphs illustrate the comparative disaggregated sales for the three-and twelve-month periods ended December 31, 2021 and 2020.

The first breakdown, transaction type, separates sales between traditional and transaction-based sales. These two types fluctuate greatly from period to period and year to year. A ten-year historical breakdown is provided in “Traditional Sales vs. Transaction-Based Sales: Ten-Year History”.

**DISAGGREGATED SALES
TRADITIONAL/TRANSACTION-BASED SALES (%)**
Three months ended December 31

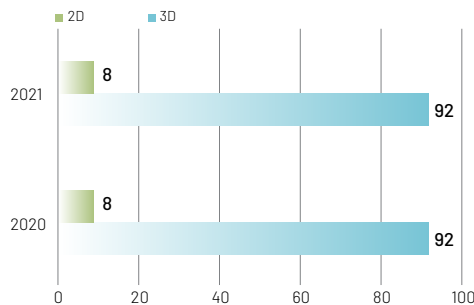


**DISAGGREGATED SALES
TRADITIONAL/TRANSACTION-BASED SALES (%)**
Years ended December 31

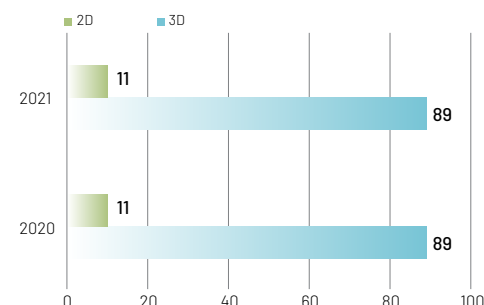


The second breakdown, data type, compares sales of 2D and 3D seismic data. As 3D seismic licence contracts are generally larger than 2D seismic licence contracts, the percentage of seismic data library revenues generated from 2D and 3D seismic data can fluctuate significantly depending on the number of 3D seismic sale contracts signed during a given period.

**DISAGGREGATED SALES
BREAK-DOWN 2D/3D (%)**
Three months ended December 31

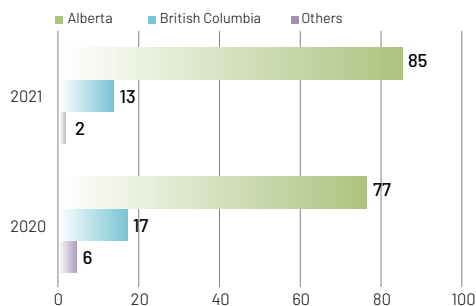


**DISAGGREGATED SALES
BREAK-DOWN 2D/3D (%)**
Years ended December 31

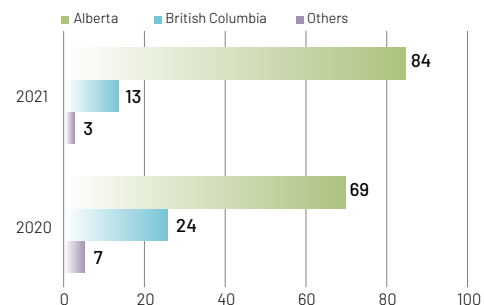


The third breakdown is geographical. The largest proportion of data sales usually comes from data in Alberta, as that is where the majority of Pulse’s data coverage and current industry activity are.

**DISAGGREGATED SALES
GEOGRAPHICAL (%)**
Three months ended December 31



**DISAGGREGATED SALES
GEOGRAPHICAL (%)**
Years ended December 31



The Company's customers are currently and generally focusing on liquids-rich natural gas and light oil pools found primarily in a broad corridor running from northwest of Calgary, Alberta, along the Foothills of the Rocky Mountains to the British Columbia border, as compared to "dry" natural gas more often found in British Columbia, on Alberta's eastern prairies and in Saskatchewan and Manitoba. During the year ended December 31, 2021, 84 percent (2020 - 69 percent) of the data library sales were from data located in Alberta, 13 percent from British Columbia (2020 - 24 percent) and 3 percent from other areas (2020 - 7 percent).

AMORTIZATION OF SEISMIC DATA LIBRARY

Seismic data library amortization expense was \$10.0 million for 2021 compared to \$11.3 million in 2020. The decrease is due to certain data acquired in previous years becoming fully amortized during the year.

Amortization of the seismic data library is described further under "Critical Accounting Estimates".

IMPAIRMENT

At December 31, 2021 and 2020, the Company assessed the cash-generating units (CGUs) in its seismic data library for indicators of impairment, as required under IFRS, and concluded there were no new indicators at December 31, 2021 and that, accordingly, no impairment test was required.

SALARIES, COMMISSIONS AND BENEFITS (SCB)

SCB includes salaries, related benefits, incentive compensation and internal commissions. For 2021, SCB was \$4.6 million, an increase of \$2.1 million from \$2.5 million in 2020.

The significant increase is explained primarily by the impact of the higher sales achieved in the year on the variable compensation plans. The year-over-year improvement in results led to the vesting of 9.5 percent of the performance share units under the long-term incentive plan, compared to 0 percent in 2020, and as well was impacted by the increase in the Company's share price since year-end 2020. In addition, there was a higher short-term incentive plan accrual and higher sales commissions from increased data library sales.

Also, in 2020 management and the Board of Directors had taken cost-cutting measures in response to low sales revenue due to the pandemic and commodity price collapse. Pulse implemented salary reductions ranging from 7.5 percent to 20 percent for all of its employees, beginning in the second quarter of 2020. These reductions were reversed in January 2021 after sales increased and the economic outlook improved.

Finally, as stated above, the Company benefited from the CEWS in both periods, which was recorded as a reduction of SCB in 2021 and 2020. For 2021, CEWS was \$312,000 compared to \$451,000 for 2020.

OTHER SELLING, GENERAL AND ADMINISTRATIVE COSTS (SG&A)

SG&A includes external commissions, occupancy costs, office and general costs, information technology expenses, reprocessing, data storage expenses, directors' fees and corporate costs, consulting fees and professional fees. For 2021, SG&A was \$1.9 million, an increase of \$410,000 from \$1.5 million in 2020. The increase was mainly related to consulting and legal fees offset by a reduction in the rent expense, software maintenance and audit fees.

In 2020, the Company also reversed a bad debt expense from the prior year when an outstanding trade receivable was collected in July 2020. Compensation for the Board of Directors was also reduced in 2020. Director's fees for the chair of the Board of Directors were reduced by 50 percent and all other independent directors' fees were reduced by 40 percent.

As stated above, the Company benefited from the CERS, which was recorded as a reduction of SCB in 2021 and 2020.

Restructuring costs for 2021 were \$86,000 compared to \$203,000 million for 2020. Restructuring costs included expenses related to the former Seitel office premises, which is subleased, and warehouse lease and repair and maintenance related to the warehouse. The CERS also contributed to the reduction in the restructuring costs in 2021 and 2020.

These additional costs were categorized as restructuring costs and make up part of the expected \$4.2 million in future liabilities as outlined in previous acquisition-related disclosure. Pulse will expense the remaining restructuring costs in 2022, as the warehouse lease agreement terminates in April 2022 and the office lease agreement terminates in November 2022.

NET FINANCING COSTS

In 2021 the Company's net financing costs were \$1.8 million compared to \$2.0 million in 2020. The decrease is due to the reduction in the average interest rate and a lower long-term debt balance during 2021. In 2021, the Company repaid \$25.6 million of long-term debt. At December 31, 2021, the long-term debt, net of deferred financing costs, was \$2.3 million compared to \$27.7 million at December 31, 2020.

The lower interest and standby fees in 2021 were offset by the \$750,000 prepayment premium to eliminate the balance owing on the subordinated debt. On June 30, 2021, the Company announced the repayment of the \$10.0 million of subordinated debt incurred to partially finance the Seitel acquisition in 2019.

Also included in the financing expenses is the interest related to lease liabilities as per IFRS 16. Interest income of \$62,000 related to data library sales with extended payment terms was also recognized during the year. At December 31, 2021, there was zero interest income remaining to be recognized.

INCOME TAXES

The income tax expense in 2021 was \$8.7 million and in 2020 it was \$171,000, even though the Company incurred a loss before income tax of \$6.6 million in 2020. The main factor affecting the tax rate calculation is the permanent difference between the tax basis and the accounting value of the seismic data library acquired in 2019. The average combined income tax rate for 2021 was 23 percent compared 24 percent in 2020. A reconciliation of the income tax expense or reduction is included in note 10 of the consolidated financial statements.

The effective tax rate for accounting in 2021 and 2020 was different from the enacted income tax rate as a result of the permanent difference between the tax basis of the data library and its cost. The change in valuation allowance related to future resource deductions and non-deductible expenditures also contributed slightly to the variance between the effective and the enacted income tax rate.

SUMMARY FOR THREE MONTHS ENDED DECEMBER 31, 2021

EARNINGS BEFORE INCOME TAXES

For the three months ended December 31, 2021, the Company generated earnings before income taxes of \$11.1 million (\$0.21 per share basic and diluted) compared to \$1.0 million (\$0.02 per share basic and diluted) for the comparable period of 2020.

REVENUE

Total revenue for the three months ended December 31, 2021 was \$16.3 million compared to \$5.2 million for the three months ended December 31, 2020.

AMORTIZATION OF SEISMIC DATA LIBRARY

For the three months ended December 31, 2021 and 2020, seismic data library amortization expense was \$2.5 million in each period.

Amortization of the seismic data library is described further under "Critical Accounting Estimates".

SALARIES, COMMISSIONS AND BENEFITS (SCB)

SCB for the three months ended December 31, 2021 was \$1.8 million compared to \$669,000 in the comparable period of 2020. The significant increase is explained by the increase in the estimated non-cash long-term incentive plan expense due to the Company's share price increase since year-end 2020, a higher short-term incentive plan accrual and higher sales commissions from increased data library sales in the fourth quarter of 2021.

Also, in 2020 management and the Board of Directors took salary reductions ranging from 7.5 percent to 20 percent for all of its employees. These reductions were reversed in January 2021 after sales increased and the economic outlook improved.

As stated above, the Company also benefited from the CERS in the fourth quarter of 2021 for \$5,000 and \$124,000 in 2020 which was recorded as a reduction of SCB.

OTHER SELLING, GENERAL AND ADMINISTRATIVE COSTS (SG&A)

SG&A for the three months ended December 31, 2021 was \$642,000 compared to \$318,000 for the three months ended December 31, 2020. The increase was mainly related to consulting and legal fees offset by a reduction in software maintenance and audit fees.

In 2020, compensation for the Board of Directors was also reduced. These reductions were reversed in January 2021 after sales increased and the economic outlook improved.

The Company also benefited from the CERS in the fourth quarter of 2021 and 2020, which was recorded as a reduction of SG&A.

NET FINANCING COSTS

For the three months ended December 31, 2021, net financing costs were \$75,000 compared to \$567,000 for the same period in 2020. The decrease is due to the reduction in the average interest rate and lower long-term debt balance during the fourth quarter of 2021.

INCOME TAXES

The income tax expense for the three months ended December 31, 2021 was \$3.0 million compared to \$723,000 for the fourth quarter of 2020. The main factors affecting the tax expense are the higher net earnings before taxes from higher sales in the fourth quarter of 2021 and the permanent difference between the tax basis and the accounting value of the data library acquired in January 2019.

Review of Financial Position

AS AT DECEMBER 31, 2021

TRADE AND OTHER RECEIVABLES

Trade and other receivables at December 31, 2021 totalled \$15.0 million compared to \$7.5 million at December 31, 2020.

The higher data library sales in the fourth quarter of 2021 than in the same period of the prior year are the main factor explaining the increase.

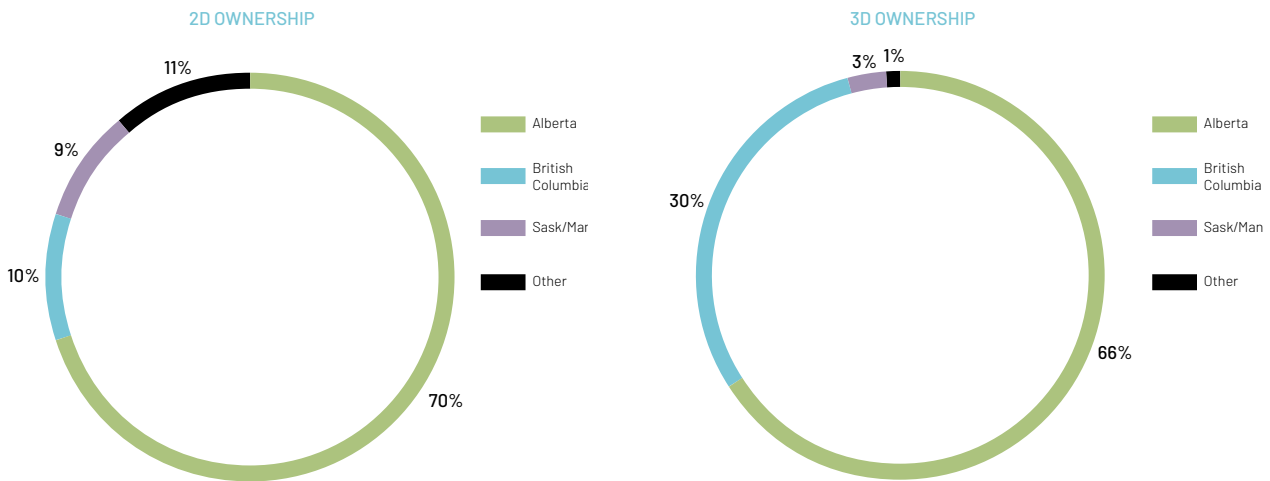
SEISMIC DATA LIBRARY

Historically, Pulse has acquired seismic data to add to its library through two main methods. The Company purchases proprietary rights to complementary seismic datasets when it finds appropriate opportunities, and it also has conducted participation surveys whereby Pulse partners with customers on participation surveys from which the seismic data collected is added to Pulse's data library to generate future licensing revenue. Pulse has not conducted a participation survey since 2015, but has grown significantly during this time through acquisition.

On January 15, 2019 the Company, through its acquisition of Seitel, added approximately 36,354 net square kilometres of 3D data and 379,207 net kilometres of 2D data to its library. The total value allocated to the seismic data in the purchase price was \$61.0 million.

At December 31, 2021, the Company considered indicators of impairment for each of its CGUs and, based on that review, no impairment test was performed. The last impairment test was performed at March 31, 2020 and no impairment loss was recognized.

The breakdown of Pulse's 2D and 3D seismic data by geographical location is as shown in the following graphs.



LONG-TERM RECEIVABLES

A 2019 data library sale that had included extended terms for payments to be received from 2020-2022 was fully collected in 2021.

RIGHT-OF-USE (ROU) ASSETS

Included in the ROU assets are the present values of the basic rent related to Pulse's office lease agreement and the former Seitel warehouse lease agreement. The present values were calculated using an incremental borrowing rate of 6.7 percent. The operating costs associated with the lease agreements were not included as those costs are not fixed or based on an index or rate.

The office lease agreement terminates in March 2023 and the warehouse lease agreement terminates in April 2022.

No fair value was allocated to the ROU asset related to the former Seitel office space. This office was not required for business by Pulse. The office lease agreement terminates in November 2022. In the third quarter of 2019 a sub-lease for the remainder of the term of the acquired office space was finalized, which led to a recovery of a portion of the monthly lease operating costs.

CURRENT TAX LIABILITIES

Included in current tax liabilities is the current tax expense for 2021 less the 2021 tax installments.

LONG-TERM DEBT

In January 2019 Pulse partially funded the acquisition of Seitel with a combination of debt from its syndicated credit facility and subordinated debt of \$10.0 million. As explained above, in June 2021 the Company repaid the \$10.0 million subordinated debt using cash on hand and a portion of its senior credit facility.

On December 21, 2021, the Company announced the renewal of its revolving credit facility and extended the maturity date for two years to January 15, 2025. The facility's available borrowing amount remains at \$25.0 million and all other major terms, including financial covenants, are unaffected by the renewal.

The long-term debt is offset by deferred financing charges to be amortized over three years.

LEASE LIABILITIES

Included in lease liabilities are the present values of the basic rent related to Pulse's office lease agreement, the lease agreement for Seitel's former office space and the warehouse lease agreement, all calculated using an incremental borrowing rate of 6.7 percent. The operating costs included in the lease agreements were not included in the lease liabilities as these costs are not fixed or based on an index or rate.

OTHER LONG-TERM PAYABLE

Included in the other long-term payable is the long-term portion of the cash-settled liability related to the long-term incentive plan.

SHARE CAPITAL SUMMARY

The Company's authorized share capital consists of an unlimited number of common shares and an unlimited number of preferred shares, issuable in series.

The following table provides details of the Company's outstanding share capital:

	Three months ended December 31,		Years ended December 31,	
	2021	2020	2021	2020
Weighted average shares outstanding:				
Basic and diluted	53,791,997	53,793,317	53,792,984	53,793,317
Shares outstanding at period-end			53,784,717	53,793,317
Shares outstanding at February 17, 2022			53,733,117	

DILUTED EARNINGS PER SHARE RECONCILIATION

The Company does not have any dilutive securities.

LONG-TERM INCENTIVE PLAN (LTIP)

The Company has an LTIP for employees, officers and Directors designed to align the Company's long-term incentive compensation with its performance and to increase levels of stock ownership. Participants are granted restricted share units (RSUs) and performance share units (PSUs). LTIP awards are at the discretion of the Board of Directors.

RSUs and PSUs have accompanying dividend-equivalent rights and, therefore, additional RSUs and PSUs are issued to reflect dividends declared on the common shares. The plan's trustee will purchase common shares on the open market for the after-tax number of RSUs and PSUs vested with funds provided by the Company.

On March 31, 2021 161,805 RSUs and 206,981 PSUs were eligible to vest. Corporate financial performance in 2020 did not meet the predetermined performance benchmarks and, consequently, no PSUs vested on March 31, 2021. RSUs vest automatically based upon time and, consequently, all the eligible RSUs vested on March 31, 2021.

To satisfy its obligation, in April 2021 the Company provided \$163,000 to the plan's trustee to purchase common shares on the open market for the total after-tax number of cash- and equity-settled RSUs that vested on March 31, 2021. The related withholding taxes of \$110,000 were paid in the second quarter to settle fully the accrued cash-settled portion of the share-based payment liabilities.

At December 31, 2021 there were 844,713 RSUs and 1,079,222 PSUs outstanding.

At February 17, 2022, total RSUs and PSUs outstanding remain unchanged. On March 31, 2022, a portion of the LTIP awards, RSUs and PSUs, will be eligible to vest. The Company's performance in 2021 met a percentage of the predetermined performance criteria and, consequently, 9.5 percent or 24,406 PSUs units will vest on March 31, 2022. RSUs vest automatically based upon time; all of the eligible RSUs or 199,776 units will, therefore, vest automatically on March 31, 2022.

In April 2022, the Company will settle its obligation to deliver the common shares by providing funds to the independent LTIP trustee to purchase the shares on the open market.

DEFICIT

On December 31, 2021 the Company had a deficit of \$33.1 million, compared to \$51.8 million at December 31, 2020. The improvement in 2021 is a result of net earnings for the year of \$21.5 million, partially offset by dividends paid of \$2.8 million and a reduction of \$5,000 due to the required accounting treatment of the Company purchasing and cancelling its common shares. The adjustment relates to the difference between the price paid by the Company for the shares purchased and cancelled under the NCIB and the average historical cost of the Company's shares. The average historical cost of the shares purchased and cancelled was recorded as a reduction to share capital.

DIVIDENDS

On October 27, 2021, the Company declared a special dividend of \$0.04 per share as well as a regular quarterly dividend of \$0.0125 per share. The dividend of \$2.8 million was paid on November 29, 2021 to shareholders of record at the close of business on November 12, 2021. No dividends were paid in 2020.

On February 17, 2022, the Company declared a quarterly dividend of \$0.0125 per common share to be paid on March 21, 2022 to shareholders of record at the close of business on March 14, 2022.

Pulse confirms that all dividends paid to shareholders in 2017 are designated as "eligible dividends" entitling Canadian resident individuals to a higher gross-up and dividend tax credit. For non-resident shareholders, Pulse's dividends are subject to Canadian withholding tax.

DEFERRED TAX LIABILITY

The net deferred income tax liability was \$572,000 at December 31, 2021 compared to \$962,000 at December 31, 2020. The decrease in the deferred income tax liability is mainly due to the decrease in the difference between the tax base of the seismic data library and the carrying amount on the statement of financial position.

The deferred income tax liability consists mainly of taxable temporary differences between the tax base of the seismic data library and the carrying amount on the statement of financial position.

Financial Summary of Quarterly Results

(thousands of dollars, except per share data)	2021				2020			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Data library sales	16,172	8,832	18,973	4,740	5,142	1,829	1,850	2,190
Other revenue	133	100	115	85	81	76	91	90
Total revenue	16,305	8,932	19,088	4,825	5,223	1,905	1,941	2,280
Amortization of seismic data library	2,500	2,509	2,503	2,498	2,493	2,489	2,850	3,516
Net earnings (loss)	8,158	3,164	10,159	33	287	(1,937)	(2,309)	(2,827)
Per share — basic and diluted	0.15	0.06	0.19	0.00	0.01	(0.04)	(0.04)	(0.05)

The revenue streams generated by Pulse's operations are data library sales and other revenue. Other revenue includes revenue from client services consisting of copy and reproduction charges, as well as data storage fees related to the leased warehouse that was acquired with the Seitel purchase.

Data library sales consist of traditional sales and transaction-based sales, as described below under "Traditional Sales vs. Transaction-Based Sales: Ten-Year History". See also "Seismic Revenue Fluctuations".

During the last eight quarters, transaction-based sales contributed to data library sales to varying degrees. The fourth quarter of 2021 included \$9.8 million in transaction-based sales. The third quarter of 2021 included \$7.0 million in transaction-based sales. The second quarter of 2021 included \$14.8 million in transaction-based sales. The first quarter of 2021 included \$4.2 million in transaction-based sales. The third quarter of 2020 included \$1.8 million in transaction-based sales. The fourth quarter of 2020 included \$4.6 million in transaction-based sales.

Very little transaction-based sales revenue was generated in the first half of 2020.

Amortization expense decreased in the second quarter of 2020 from the prior quarters depicted above due to the completion of the amortization of a large amount of data that was shot by the Company in 2013. As amortization is a non-cash expense, the Company continued to generate cash EBITDA and shareholder free cash flow in each quarter.

During the past eight quarters, the fluctuations in net earnings or loss have largely been a function of the corresponding quarterly fluctuations in revenue. For the first quarter of 2020, the higher amortization expense as discussed above, restructuring expenses and financing costs related to the acquisition offset the increased revenue, and contributed to the lower net result.

Selected Annual Financial Information

(thousands of dollars, except per share data)	Years ended December 31,		
	2021	2020	2019
Data library sales	48,717	11,011	23,635
Other revenue	433	338	520
Total revenue	49,150	11,349	24,155
Net loss	21,514	(6,786)	(3,411)
Per share – basic and diluted	0.40	(0.13)	(0.06)
Total assets	52,899	56,742	69,504
Long-term debt	2,265	27,715	31,511
Total non-current financial liabilities	3,114	29,302	32,484

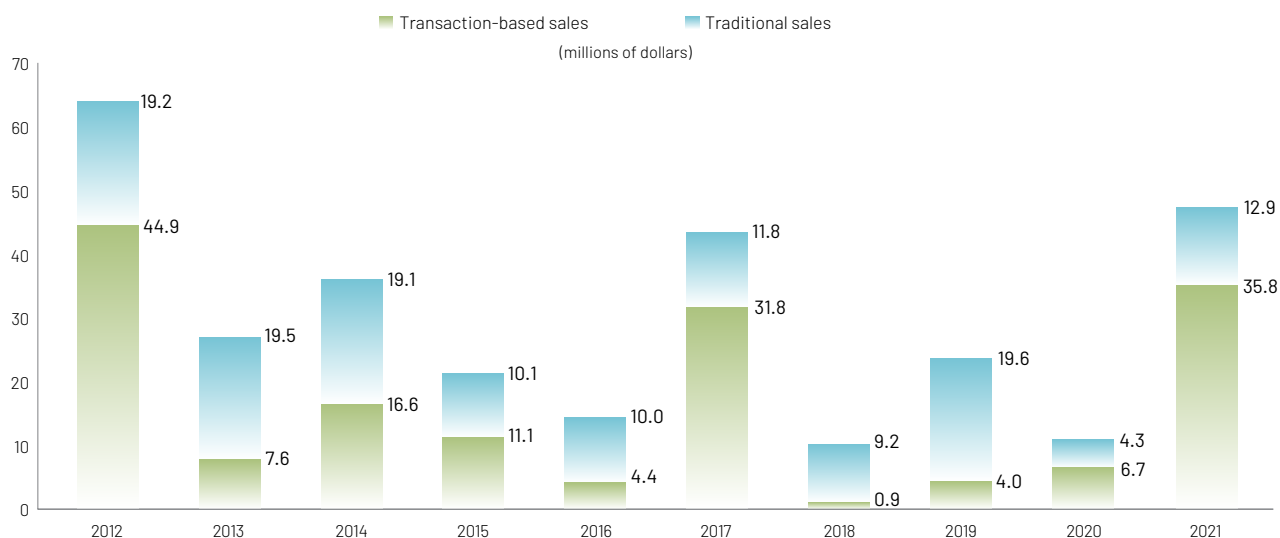
For the last three years, total revenue consisted of seismic data library sales and other revenue. Seismic data library sales in 2021 were higher than in 2020 and 2019. In 2020, seismic data library sales were low due to the pandemic and drastic cutbacks in the energy-producing sector's capital spending. Seismic data library sales rebounded strongly in 2021, becoming the second-highest year in Pulse's history. In 2019 sales were lower than historical averages because of the ongoing downturn reducing customer demand.

The Company had net losses in 2020 and 2019, due primarily to low data library sales and high amortization expense.

See also "Seismic Revenue Fluctuations".

Total assets decreased from 2019 to 2021 due to amortization of the seismic data library.

Traditional Sales vs. Transaction-Based Sales: Ten-Year History



There are three main types of transaction-based sale. The first is the partnership or joint venture, in which an oil and gas asset holder elects to pool its expertise, capital and/or assets with one or more new participants to explore or develop a play. Under the Company's current standard-form licensing agreements, any new technical or operational participant that wishes to view or interpret the seismic data must purchase a data licence from Pulse, generally at a discount (usually pre-defined in the initial licensing agreement). Purely financial partners that do not wish to view or interpret the seismic information are exempt.

The second kind of transaction-based sale is a corporate merger or acquisition. In this case, the seismic data is transferred to the new organization. Under the Company's current standard-form licensing agreements, the buyer has 30 days to determine whether it would like to pay a change-of-control fee to keep the data or return the data to Pulse.

The third is the sale of an oil and gas asset or group of assets (as well as partial mineral rights to particular zones below the asset-owner's lands). Under the Company's current standard-form licensing agreements, the licence is not transferable upon an asset sale. In this case, no rights to the seismic data transfer to the buyer, and there are no terms of payment in the licence agreement. Should the buyer be interested in Pulse's seismic data, it must license the data from Pulse at the regular price. Following this type of transaction, considerable time may pass until a data licensing sale occurs because the new asset owner may defer development of the particular asset. In addition, the new asset owner may be interested in only portions of the original dataset. The attraction of Pulse's library remains the far lower cost of licensing the data than shooting new seismic over the same area.

The precise terms of individual licence agreements (including those historically used by Pulse and its predecessors and those assumed by Pulse on data acquisitions) can vary greatly. Change-of-control fees and joint venture copy fees may not always be payable, and licence agreements may not always be non-assignable.

Contractual Obligations

Pulse's known contractual obligations at December 31, 2021 are comprised of leases for certain office spaces and warehouse space, minimum payments under seismic data services contracts and accounts payable and accrued liabilities. The following table reflects the Company's anticipated payment of contractual obligations:

Contractual Obligations (thousands of dollars)	Total	Payments due by period			
		Less than 1 year	1 - 3 years	4 - 5 years	After 5 years
Long-term debt – capital	2,375	–	–	2,375	–
Long-term debt – interest	231	76	152	3	–
Lease liabilities	1,018	940	78	–	–
Seismic data services contracts	148	148	–	–	–
Accounts payable and accrued liabilities	2,849	2,593	256	–	–
Total contractual obligations	6,621	3,757	486	2,378	–

Obligations in the category of seismic data services contracts are for physical seismic data storage.

Accounts payable and accrued liabilities at December 31, 2021 include the interest and standby fee accrual of \$14,000 related to the long-term debt, the accrual of \$1.0 million related to the short-term incentive plan and the accrual of \$193,000 related to the long-term incentive plan.

Liquidity, Capital Resources and Capital Requirements

At December 31, 2021 Pulse had working capital of \$9.7 million and a working capital ratio of 2.7:1.

In 2021 the Company generated \$29.8 million of cash from operating activities compared to \$3.8 million for the same period in 2020. The main differences between the two periods relate to higher data library sales offset by higher income tax paid during the year.

The Company also utilized cash for the following outlays:

- Long-term debt repayments of \$25.6 million;
- Settlement of equity share-based payment of \$163,000;
- Debt transaction costs of \$63,000;

- Purchase and cancellation of 8,600 common shares through its normal course issuer bid (NCIB) for a total of \$17,000 (at an average price of \$2.01 per common share including commissions);
- Property and equipment of \$8,000;
- Capital lease principal repayments of \$771,000; and
- Seismic data digitization of \$350,000.

The Company will not carry cash while there is a balance on the revolving credit facility, as all cash is applied to the amount outstanding.

At the end of 2020 Pulse owed a total of \$28.0 million in long-term debt, consisting of \$18.0 million owing on the senior revolving credit facility and \$10.0 million in subordinated debt to a third party. In June 2021, the subordinated debt was fully repaid.

As stated above, on December 21, 2021 the Company renewed its revolving credit facility and extended the maturity date for two years to January 15, 2025. The facility's available borrowing amount remains at \$25.0 million and all other major terms, including financial covenants, are unaffected by the renewal.

Significant terms of the current credit facility are:

- Interest is based on prime rate plus 0.75 percent to 4.25 percent following a ten-tier margin structure based on the Company's long-term debt to adjusted EBITDA ratio as described below;
- Standby fee is based on the daily undrawn balance of the credit facility and the Company's long-term debt to adjusted EBITDA ratio following a ten-tier margin structure;
- Three-year term until January 15, 2025, with an extension of up to one year available on January 15 of every year with the approval of the lender. If the extension is not granted, any outstanding amounts will be payable on the then-current applicable maturity date; and
- Security through a charge on all of the assets of the Company and its material subsidiaries.

At December 31, 2021 the Company had a balance of \$2.4 million on the revolving credit facility and the applicable interest rate was 3.2 percent (December 31, 2020 – 5.2 percent).

The credit facility also includes the following two financial covenants:

1) MAXIMUM LONG-TERM DEBT TO ADJUSTED EBITDA RATIO

The long-term debt is determined on a consolidated basis and in accordance with IFRS.

Adjusted EBITDA is to be calculated on a trailing 12-month basis and is defined as earnings or loss before interest, income taxes, depreciation and amortization, plus extraordinary losses, non-cash losses and expense charges, and any other unusual or non-recurring cash charges, expenses or losses consented to by the lenders, less participation survey revenue, lease payments treated as capital lease, warehouse storage fees, extraordinary gains and non-cash gains and income. Adjusted EBITDA is to be adjusted for acquisitions or dispositions to reflect such acquisition or disposition as if it occurred on the first day of such calculation period.

The long-term debt to adjusted EBITDA ratio shall not be greater than 3.0:1 on December 31, 2021 and thereafter.

At December 31, 2021 the long-term debt to adjusted EBITDA ratio was 0.06:1.

2) INTEREST COVERAGE RATIO

The interest coverage ratio is defined as the ratio of adjusted EBITDA to interest expense.

The minimum interest coverage ratio shall not be less than 2.5:1 at December 31, 2021 and thereafter.

At December 31, 2021 the interest coverage ratio was 23.1:1.

The long-term debt to adjusted EBITDA ratio and the interest coverage ratio related to the financial covenant at December 31, 2021 were calculated as follows:

LONG-TERM DEBT TO ADJUSTED EBITDA RATIO

(thousands of dollars except ratio)

Long-term debt	2,375
Divided by:	
Adjusted EBITDA	42,611
Long-term debt to adjusted EBITDA ratio (not to exceed 3:1)	0.06:1

INTEREST COVERAGE RATIO (ICR)

(thousands of dollars except ratio)

Adjusted EBITDA	42,611
Divided by:	
Interest expense	1,844
ICR (to be at least 2.5:1)	23.1:1

The Company was therefore in compliance with the credit facility's covenants at December 31, 2021.

The Company pays interest and a standby fee based on the daily undrawn balance of the credit facility and its long-term debt to adjusted EBITDA ratio. Interest and standby fees on the revolving facility are calculated based on the lender's prime rate, bankers' acceptance rate or LIBOR, plus an applicable margin based on the covenant ratio of total debt to adjusted EBITDA. The long-term debt (before deferred financing charges) to adjusted EBITDA ratio at December 31, 2021 was 0.06:1 and the applicable margin and standby fee will be set at the first-level rates specified in the facility.

The interest and standby fee rates are adjusted the day after the covenant's calculation for the previous fiscal quarter is received and approved by the lender.

The applicable margin and standby fee rate were determined as follows:

Total Debt to Adjusted EBITDA Ratio	Applicable Margin for Canadian Prime Rate Loans	Applicable Margin for Bankers' Acceptances	Standby Fee Rate
Less than or equal to 1:1	0.75%	2.25%	0.45000%
Greater than 1:1 but less than or equal to 1.5:1	1.00%	2.50%	0.50000%
Greater than 1.5:1 but less than or equal to 2:1	1.25%	2.75%	0.55000%
Greater than 2:1 but less than or equal to 2.5:1	1.50%	3.00%	0.67500%
Greater than 2.5:1 but less than or equal to 3:1	1.75%	3.25%	0.73125%
Greater than 3:1 but less than or equal to 3.5:1	2.25%	3.75%	0.93750%
Greater than 3.5:1 but less than or equal to 4:1	2.75%	4.25%	1.06250%
Greater than 3.5:1 but less than or equal to 4:5:1	3.25%	4.75%	1.18750%
Greater than 3.5:1 but less than or equal to 5:1	3.75%	5.25%	1.31250%
Greater than 5:1	4.25%	5.75%	1.43750%

Toronto Stock Exchange (TSX) rules determine the number of shares the Company is permitted to purchase through its NCIB.

On October 29, 2021, the Company announced that the Toronto Stock Exchange (TSX) had accepted the Company's Notice of Intention to commence an NCIB. The Company could purchase, for cancellation, up to a maximum of 3,097,433 common shares, equal to 10 percent of the public float of 30,974,330 common shares as at October 20, 2021. The Company is limited under the NCIB to purchasing up to 8,113 common shares in any one day, subject to the block purchase exemption under TSX rules. The NCIB will continue until November 1, 2022. Purchases will be made on the open market through the TSX or alternative trading platforms at the market price of such shares. All shares purchased under the NCIB will be cancelled.

From November 2, 2021 to December 31, 2021, the Company purchased 8,600 common shares (2020 — 0) under the NCIB. All purchases were made on the open market through the TSX or alternative trading platforms at the market price of such shares. All shares purchased under the NCIB were cancelled.

Funding for Pulse's future capital expenditures will generally depend on the level of future data library sales. Pulse's management believes that the Company's capital resources will be sufficient to finance future operations and carry out the necessary capital expenditures through 2022. The Company anticipates that future capital expenditures will be financed through the available credit facility and funds from operations. The Company has a \$25.0 million revolving credit facility with \$22.6 million undrawn at year-end 2021. If deemed appropriate by management and the Board of Directors, Pulse can also issue common or preferred shares.

Pulse requires flexibility in managing its capital structure to take advantage of opportunities for raising additional capital to finance opportune seismic data acquisitions. Historically, the Company has used a combination of debt and equity to finance growth initiatives, and it continues to rely on internal measures such as the long-term debt to equity ratio to structure and forecast its capital requirements. Long-term debt is defined as long-term debt net of deferred financing costs. At December 31, 2021, the long-term debt to equity ratio was 0.05:1. Pulse's management considers the current capital structure appropriate.

This discussion on liquidity, capital resources and capital requirements contains forward-looking information; users of this information are cautioned that actual results may vary and are encouraged to review the discussions of risk factors and forward-looking statements below.

Non-Capital Resources

The Company's main non-capital resource is its key management and staff. The Company has an experienced team with extensive knowledge about the seismic industry. Pulse's management understands industry cycles and how to manage the business in the downturn and recovery phases. Pulse has built strong sales, financial and IT departments. Key management and staff are eligible to participate in the short-term and long-term incentive plans, which are tied to the Company's shareholder free cash flow per share.

Non-GAAP Financial Measures and Reconciliations

This MD&A and the Company's continuous disclosure documents provide discussion and analysis of cash EBITDA and shareholder free cash flow. IFRS do not include standard definitions for these measures and, therefore, they may not be comparable to similar measures used and disclosed by other companies. As IFRS have been incorporated into Canadian generally accepted accounting principles (GAAP), these non-IFRS measures are also non-GAAP measures. The Company has included these non-GAAP financial measures because management, investors, analysts and others use them to evaluate the Company's financial performance.

Cash EBITDA and shareholder free cash flow are not calculations based on IFRS and should not be considered in isolation or as a substitute for IFRS performance measures, nor should they be used as an exclusive measure of cash flow, because they do not consider working capital changes, capital expenditures, long-term debt repayments and other sources and uses of cash which are disclosed in the consolidated audited and interim statements of cash flows.

CASH EBITDA AND SHAREHOLDER FREE CASH FLOW

Cash EBITDA represents the capital available to invest in growing the Company's 2D and 3D seismic data library, to pay interest and principal on its long-term debt, to purchase its common shares, to pay taxes and to pay dividends.

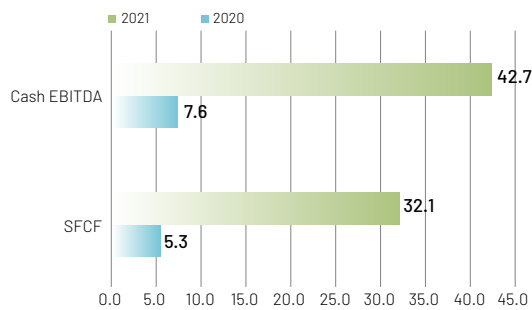
Cash EBITDA is calculated as earnings or loss from operations before interest, taxes, depreciation and amortization less participation survey revenue, plus non-cash and non-recurring expenses. Cash EBITDA excludes participation survey revenue as this revenue is directly used to fund specific participation surveys and is unavailable for discretionary expenditures. The Company believes cash EBITDA helps investors compare Pulse's results on a consistent basis without regard to participation survey revenue and non-cash items, such as depreciation and amortization, which can vary significantly depending on accounting methods or non-operating factors such as historical cost.

Shareholder free cash flow further refines the calculation of capital available to invest in growing the Company's 2D and 3D seismic data library, to repay debt, to purchase its common shares and to pay dividends, by deducting non-discretionary expenditures from cash EBITDA. Non-discretionary expenditures are defined as debt financing costs (net of deferred financing expenses amortized in the current period) and current tax provisions.

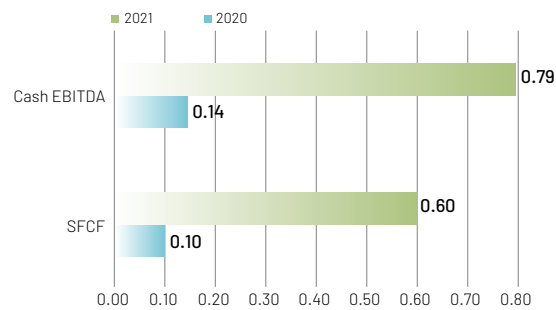
A reconciliation of net earnings or loss to EBITDA, cash EBITDA and shareholder free cash flow follows:

(thousands of dollars, except per share data)	Three months ended December 31,		Years ended December 31,	
	2021	2020	2021	2020
Net earnings (loss)	8,158	287	21,514	(6,786)
Add:				
Amortization of seismic data library	2,500	2,493	10,010	11,348
Net financing costs	75	567	1,827	1,986
Income tax expense	2,984	723	8,667	171
Depreciation	118	166	614	667
EBITDA	13,835	4,236	42,632	7,386
Add:				
Non-cash expenses	94	67	311	264
Net restructuring costs	7	(103)	(247)	(97)
Cash EBITDA	13,936	4,200	42,696	7,553
Deduct:				
Net financing costs	75	567	1,827	1,986
Current income tax expense	3,077	711	9,003	395
Add:				
Non-cash deferred financing charges	44	55	216	174
Shareholder free cash flow (SFCF)	10,828	2,977	32,082	5,346
Cash EBITDA per share basic and diluted	0.26	0.08	0.79	0.14
SFCF per share basic and diluted	0.20	0.06	0.60	0.10

CASH EBITDA AND SFCF
YEARS ENDED DECEMBER 31
(millions of dollars)



CASH EBITDA AND SFCF (BASIC AND DILUTED)
YEARS ENDED DECEMBER 31
(dollar per share)



As reported in previous filings concerning the Seitel acquisition, Pulse assumed various future liabilities viewed by the Company as being part of the total cost of the acquisition. These estimated \$4.2 million of costs are being expensed over time and categorized as restructuring costs, with a large percentage occurring in the first year, including \$2.7 million in 2019. Because these expenses are expected to be non-recurring, they are being excluded from the Company's calculation of cash EBITDA and shareholder free cash flow. Also deducted from the cash EBITDA calculation is the rental revenue received for the use of a portion of the warehouse by a third party. Because the expenses were low in the last two years, and the Company benefited from CERS, these adjustments result in a net credit for 2020 and the full year 2021. The fourth quarter of 2021 had a \$7,000 expense as CERS had ended.

Financial Instruments

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity. Financial instruments are recognized on the statement of financial position when the Company becomes a party to the instrument's contractual obligations. The Company's financial assets include cash and cash equivalents, trade and other receivables. Its financial liabilities mainly comprise accounts payable and long-term debt.

FAIR VALUE

The fair values of cash and cash equivalents, accounts receivable and accounts payable approximate their carrying amount largely due to the short-term maturities of these instruments. The fair value of the long-term debt approximates the carrying value because interest charges under the bank loan are based on current Canadian bankers' acceptance rates and margins.

CREDIT RISK

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Company's accounts receivable.

The Company is exposed to customer credit risk in connection with data sales and participation surveys with its customers. The Company's exposure to credit risk is influenced mainly by the individual characteristics of each customer. The nature of the Company's customer base, including the default risk of the industry in which customers operate, has an influence on credit risk. As the Company operates to a large extent in the oil and natural gas industry, nearly all of its trade receivables relate to customers from this industry.

The effective monitoring and control of credit risk is a core competency of the Company. Each new customer is analyzed individually for creditworthiness before payment and delivery terms and conditions are offered. The Company's review includes credit reference checks and credit limits for all customers as well as other monitoring activities. Accounts receivable aging is reviewed regularly.

In the past, certain customers have signed agreements with the Company that provide for extended payment terms. The Company's credit risk increases on these types of arrangements due to the length of time before payments are received. The risk is mitigated by attempting to limit these types of arrangements to major oil and natural gas companies which have long operating histories and adequate resources to fulfill their commitments.

The Company has been doing business with the majority of its customers for many years, with insignificant credit losses to date. The Company does not require collateral in respect of trade receivables.

The Company's customers are in the oil and natural gas industry, with the majority located in Alberta. At December 31, 2021, 89 percent or \$13.3 million of total accounts receivable were due from three customers. The \$13.3 million was collected subsequent to year-end. The Company does not expect any problem in collecting the remaining amounts.

Accounts receivable over 90 days are monitored and assessed for impairment. Those accounts are evaluated on a case-by-case basis using information received from the customer and market information. The Company has one other account due for more than 90 days but believes that this account is collectible.

Cash and cash equivalents are held with a Canadian chartered bank that is one of Canada's five largest banks. The carrying amount of financial assets represents the maximum credit exposure. The Company considers the risk on cash and cash equivalents to be very low.

LIQUIDITY RISK

Liquidity risk is the risk that the Company will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled in cash or other financial assets, i.e., repaying its debt and paying its suppliers. The Company's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under normal and stressed conditions, without incurring unacceptable losses or risking damage to its reputation. Beyond total working capital of \$9.7 million, the Company had a revolving-term credit facility, which offers flexibility in drawing and paying down debt without penalty, of which \$22.6 million remained available at December 31, 2021 for future draws, as described in "Liquidity, Capital Resources and Capital Requirements".

The Company regularly monitors cash flow. In addition, it monitors funding options available in the capital markets, as well as trends in the availability and costs of such funding, with a view to maintaining financial flexibility and limiting repayment risks. The Company does not believe it will encounter difficulty in meeting its obligations associated with financial liabilities.

COMMODITY PRICE RISK

The Company is not directly exposed to commodity price risk as it does not have any contracts directly based on commodity prices. A change in commodity prices, specifically oil and natural gas prices, could have a material impact on the Company's customers' cash flows and could therefore affect seismic data library sales and participation surveys. Commodity prices are affected by many factors, including supply and demand. The Company has not entered into any commodity price risk contracts. Given that this is an indirect influence, the financial impact on the Company of changing oil and natural gas prices is not reasonably determinable.

New IFRS Standards

A number of new standards, amendments to standards and interpretations have been issued by the International Accounting Standards Board (IASB) but were not yet effective for the year ending December 31, 2021. Accordingly, they were not applied in preparing the consolidated financial statements. None is expected to have a significant effect on the consolidated financial statements.

Critical Accounting Estimates

The preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions. Management's estimates and assumptions affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. The Company's critical accounting estimates are discussed annually with the Audit and Risk Committee of the Company's Board of Directors and are described below.

SEISMIC DATA LIBRARY

Amortization of the seismic data library, the Company's largest asset, with a net book value of \$37.2 million at December 31, 2021 (December 31, 2020 – \$46.9 million), is conducted by reference to the estimated timing of the economic return of the seismic library. Amortization of the seismic data library is based on management's estimates of expected future sales, expected useful lives, market developments and experience. These estimates may change due to changes in market conditions, potential prospects, exploration licence periods, exploration and development in certain areas, government regulations and general economic conditions. Because of the inherent difficulty in estimating market developments and future sales, the amortization rates might not accurately reflect the systematic allocation of the seismic data library over its useful life.

Additions to the seismic library arise in two ways: (i) participation surveys, and (ii) the purchase of existing seismic data. Costs directly incurred in acquiring, processing and otherwise completing seismic surveys are capitalized to the seismic data library. Subsequent expenditures on data library assets, such as reprocessing and digitization, are capitalized only when the expenditure increases the asset's future economic benefits. All other expenditures are recognized in earnings as incurred.

The costs of purchased data are amortized on a straight-line basis over seven years.

The carrying amounts of the seismic data library are reviewed at each reporting date by management to determine whether there is any indication of impairment. If so, the asset's recoverable amount is estimated and impairment recorded, if any. The determination of the Company's CGUs was based on management's judgements in regards to the smallest identifiable group of seismic data that generates cash inflows largely independent of the cash inflows from other data. Estimating future cash flows and residual values for purposes of impairment testing requires management to make judgments regarding long-term forecasts of future revenues and costs and future residual values related to the seismic data library. These forecasts are uncertain as they require assumptions about future market conditions and demand for seismic data. Significant and unanticipated changes in these assumptions could require a provision for impairment in a future period.

As discussed above, the Company did not recognize an impairment loss in 2021 or 2020.

Estimates of useful lives and the pattern of expected future economic benefits are based on historical experience and internal business plans. Expected future economic benefits are determined based on historical revenue patterns. Future deviations from the Company's historical returns could materially affect the current amortization methodology.

PERFORMANCE SHARE UNITS

In determining the amount of share-based compensation related to PSUs, management makes estimates about future results and vesting criteria. It is reasonably possible that future outcomes could be different from the estimates and could require a material adjustment to the share-based compensation expense recorded in future periods. The impact of any change in the number of PSUs expected to vest is recognized in the period the estimate is revised.

DEFERRED TAX ASSETS

Significant management judgement is required to determine the amount of deferred tax assets that can be recognized, based on the likely timing and level of future taxable income. The estimates of projected future taxable income are based on a variety of factors and assumptions, many of which are subjective and beyond the Company's control. Accordingly, these estimates could differ significantly from year to year, and the Company might end up realizing more or less of the deferred tax assets than recognized in the consolidated financial statements.

Disclosure Controls and Procedures (DC&P) and Internal Controls over Financial Reporting (ICFR)

DC&P

Management has evaluated the effectiveness of its DC&P (as defined in National Instrument 52-109), under the supervision of its CEO and CFO, at December 31, 2021. Based on this evaluation, the CEO and CFO have concluded that the DC&P were effective at December 31, 2021.

ICFR

Management under the supervision of its CEO and CFO evaluated the effectiveness of ICFR (as defined in National Instrument 52-109) at December 31, 2021, in accordance with Internal Control 2013 Integrated Framework, issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and the Control Objectives for Information and Related Technology Framework (COBIT). Based on this evaluation, Pulse's CEO and CFO concluded that the ICFR were effective at December 31, 2021.

No changes were made to ICFR during the period beginning on October 1, 2021 and ending on December 31, 2021 that have materially affected, or are reasonably likely to materially affect, Pulse's ICFR.

Risk Factors

OIL AND NATURAL GAS PRICES

Pulse's customers are oil and natural gas exploration and development companies. Oil and natural gas prices are volatile and directly affect the capital budgets, drilling activity, and access to capital and credit by Pulse's customers, which in turn directly affect the demand by such customers for seismic data.

DATA ACQUISITION AND DEMAND FOR SEISMIC DATA

Pulse's ability to generate revenue, cash EBITDA, shareholder free cash flow and earnings and to grow its seismic data library depends on the acquisition of new data and on the demand for seismic data from its oil and natural gas customers over geological plays and areas that such customers focus on in a given period. Activity in such plays and areas depends on commodity prices, customers' budgets, geological understanding, advances in drilling technology, government fiscal and regulatory regimes, and access to processing and pipeline capacity, all of which are beyond Pulse's control. The Company endeavours to grow its high-quality proprietary data library, to expand and maintain its customer base, and to provide good customer service with short delivery time and broad data coverage in prospective locations.

PRICING OF DATA LIBRARY LICENCE SALES

Pulse's ability to generate revenue, cash EBITDA, shareholder free cash flow and earnings and to grow its data library depends on its ability to market data library licences and on the pricing of these licences. Pulse prices its data competitively while endeavouring to maintain the integrity of the database.

CYBERSECURITY

Pulse maintains strong cybersecurity over its IT systems, networks and website with the goal of preventing cyber attacks. Cyber attacks are intentional attempts to gain unauthorized access to information systems, networks and websites for unlawful

or improper purposes. Attempts to breach cybersecurity are becoming more sophisticated and could lead to unauthorized access and release of confidential information and disruption in operating systems.

Cyber attackers may use a range of techniques, from manipulating people to using sophisticated malicious software and hardware on a single or distributed basis. Some cyber-attacks use a combination of techniques in their attempts to evade safeguards. Pulse uses firewalls, intrusion prevention systems and antivirus software in the security program of its systems and networks. The risk and consequences of cyber-attacks can surpass traditional physical security risk due to the rapidly evolving scope and sophistication of these threats.

A successful attack on Pulse's systems, networks, website or infrastructure could prevent Pulse from providing reliable service and information, allow for the unauthorized interception, destruction, use or dissemination of Pulse's or its customers' information, and/or prevent Pulse from operating its networks. Such events could cause the Company to lose customers, lose revenue, incur expenses, and suffer reputational and goodwill damages. It could also lead to a loss or devaluation of Pulse's intellectual property rights and could subject the Company to litigation or government investigation. The costs of such events could include liability for information loss, and repairs to infrastructure and systems. Pulse's insurance may not cover or be adequate to fully reimburse the Company for these costs and losses.

To mitigate these risks, Pulse has implemented measures and processes that mitigate the risk of physical and cyber attacks. Pulse has policies, controls and monitoring systems that protect its assets and employees. Pulse also uses cyber threat intelligence, testing, intrusion prevention/detection and incident response capabilities to help identify possible cyber threats and adjust its security measures accordingly.

Pulse also has a recovery plan in case of a cyber attack. It includes backup infrastructure and systems that mirror the primary infrastructure and systems used in the day-to-day operations. The recovery plan has been tested.

Pulse also uses a third party to store its physical seismic data, the Company's revenue-generating asset, and a backup copy of the digital seismic data library. The third-party backs-up the data using the same technology as Pulse, which includes redundant offsite storage in a secured data facility as well as tape backups.

As part of the risk management strategy, the Company's IT Director reports in person on a regular basis to the Audit and Risk Committee of the Board of Directors the key risk indicators, including any new risks that Pulse is facing in its day-to-day operations along with updates to the risk mitigation plans. The Audit and Risk Committee has the oversight responsibility for cyber security. The goal of the strategy is to be prepared, protected, and able to quickly detect and respond appropriately to the situation, and to ensure post-breach reporting requirements are met in case of security breach.

Pulse has not experienced a security incident or breach. If a material security breach happens in the future, the management team's Disclosure Committee would activate the communications plan to inform the relevant stakeholders including employees, directors, customers, securities commissions, stock exchanges, government agencies and shareholders as soon as possible.

RELICENSING (CHANGE-OF-CONTROL) FEES AND PARTNER COPY SALES

Data library licences are generally not transferable. Under Pulse's current standard-form licence agreement, upon a change of control of the licensee in a merger or acquisition transaction, a relicensing fee is generally payable if the acquiror wants to keep a copy of the data. Under Pulse's current standard-form licence agreement, a licensee generally may not give the licensed data to a joint interest partner in the oil and natural gas lands. If the joint interest partner wishes to view or interpret the seismic data, it must purchase an additional copy directly from Pulse.

The precise terms of individual licence agreements (including those historically used by Pulse and its predecessors and those assumed by Pulse on data acquisitions) can vary greatly. Relicensing fees may not always be payable and joint interest partners may not always wish or have to purchase an additional licensed copy.

In addition, merger-and-acquisition and joint venture activity in the oil and natural gas industry is unpredictable.

LAWS AND REGULATIONS

Pulse's oil and natural gas customers are subject to federal and provincial laws and regulations, including those pertaining to taxation, royalty rates, environmental protection and safety. Compliance with these laws and regulations, and changes in these laws and regulations, may affect oil and natural gas exploration and development activities and the demand for seismic data licences and participation surveys by such customers.

COMPETITION

Pulse owns the largest seismic data library in Canada, consisting of high-quality data with extensive coverage in the WCSB. Other geophysical companies that own large data libraries are considered to be indirect competitors of Pulse, as there is generally little overlap between 3D databases. With each company owning unique seismic data, clients seeking specific data will usually choose to license available data from the appropriate library as the cost of overshooting an already-surveyed area is much higher than licensing existing data. Seismic data library companies and individual oil and natural gas companies may, however, elect to overshoot an existing 3D dataset if it is not of the desired quality or specifications.

KEY MANAGEMENT, OPERATIONS AND MARKETING PERSONNEL

Pulse depends on certain key management, operations and marketing personnel for the success of its seismic acquisition, marketing and licensing business. Pulse endeavours to obtain written employment agreements with such personnel containing confidentiality and non-competition provisions where appropriate. Personnel risk is further mitigated by providing compensation packages designed to support Pulse's business philosophy and which are both market-driven and performance-based. This includes short-and long-term incentive programs which are directly tied to shareholder free cash flow per share, which the Board of Directors believes is the key financial metric for the long-term increase in the value of Pulse. Pulse also has a succession plan to provide adequate training and education to its future leaders, which is reviewed annually by the Board of Directors.

LOSS OF SEISMIC DATA

Pulse's largest asset and source of revenue is the seismic data library. The safety and security of the data library asset is essential to the Company's success. The physical data is stored in two secure locations and managed by Pulse staff and a data storage company. The physical data has been digitized, and backup digital copies are kept in separate secure locations. For further information, please also see "Cybersecurity" above.

PROTECTION OF INTELLECTUAL PROPERTY

Pulse relies on a combination of licence agreements, copyright, confidentiality and other intellectual property rights to protect its ownership rights and copyright in its seismic data. Despite Pulse's efforts to enforce its licence agreements and copyright, there is a risk that unauthorized parties might improperly obtain, copy or use Pulse's seismic data without Pulse's knowledge or permission. The cost of litigation necessary to enforce Pulse's ownership rights and copyright could be prohibitive.

NEW PRODUCTS

Seismic data is used by oil and natural gas exploration and development companies to identify portions of geological formations that have the potential to hold hydrocarbons. There are currently no other products that compete directly against seismic data for such purposes. Should a new product or method be introduced that was technically and/or economically comparable or superior to seismic data, Pulse's data library sales and/or the pricing thereof could be adversely affected.

CLIMATE CHANGE

The Company's seismic data library is a digital asset that is generally unaffected by climate change. Climate change, however, affects Pulse's customers, the oil and natural gas exploration and production companies who license seismic data for drilling and exploration. Carbon and environmental laws and regulations, including those related to climate change and carbon regulations, as well as the apprehended physical effects of climate change, including extreme weather events, resource shortages and changing sea levels and temperatures, may adversely affect these companies, their businesses, operations and financial condition over time and will change their exploration, development and production programs, their capital expenditures and their need for seismic data, which could result in an unmeasurable adverse impact on Pulse's sales, cash flow and profitability.

The Company recognizes climate change as an increasingly important global challenge and is committed to promoting responsible energy use in its own business and operations. The Board of Directors and management of the Company routinely monitor proposed changes in carbon and environmental policy, legislation and regulation and will continue to assess the risks of climate change on the business and operations of the Company.

Additional Information

You may find additional information relating to Pulse, including the Company's Annual Information Form, on SEDAR at www.sedar.com.

Forward-Looking Information

This document contains information that constitutes "forward-looking information" or "forward-looking statements" (collectively, "forward-looking information") within the meaning of applicable securities legislation. Forward-looking information is often, but not always, identified by the use of words such as "anticipate", "believe", "expect", "plan", "intend", "forecast", "target", "project", "guidance", "may", "will", "should", "could", "estimate", "predict" or similar words suggesting future outcomes or language suggesting an outlook.

This MD&A and, specifically, the Outlook and the Liquidity, Capital Resources and Capital Requirements sections herein contain forward-looking information which includes, but is not limited to, statements regarding:

- The outlook of the Company for the year ahead, including future operating costs and expected revenues;
- Recent events on the political, economic, regulatory, public health and legal fronts affecting the industry's medium- to longer-term prospects, including progression and completion of contemplated pipeline projects;
- The Company's capital resources and sufficiency thereof to finance future operations, meet its obligations associated with financial liabilities and carry out the necessary capital expenditures through 2022;
- Pulse's capital allocation strategy;
- Pulse's dividend policy;
- Oil and natural gas prices and forecast trends;
- Oil and natural gas drilling activity and land sales activity;
- Oil and natural gas company capital budgets;
- Future demand for seismic data;
- Future seismic data sales;
- Pulse's business and growth strategy; and
- Other expectations, beliefs, plans, goals, objectives, assumptions, information and statements about possible future events, conditions, results and performance, as they relate to the Company or to the oil and natural gas industry as a whole.

Sources for the forecasts and the material assumptions underlying this forward-looking information are, where applicable, noted in the relevant sections of this MD&A.

By its very nature, forward-looking information involves inherent risks and uncertainties, both general and specific, and risks that predictions, forecasts, projections and other forward-looking statements will not be achieved. Pulse does not publish specific financial goals or otherwise provide guidance, due to the inherently poor visibility of seismic revenue. Pulse cautions readers not to place undue reliance on these statements as a number of important factors could cause the actual results to differ materially from the beliefs, plans, objectives, expectations, estimates and intentions expressed in such forward-looking information. These factors include, but are not limited to:

- Uncertainty of the timing and volume of data sales from the recently acquired seismic data library, which was partially funded with long-term debt;
- Volatility of oil and natural gas prices;
- Risks associated with the oil and gas industry in general;
- The Company's ability to access external sources of debt and equity capital;

- Credit, liquidity and commodity price risks;
- The demand for seismic data;
- The pricing of data library licence sales;
- Cybersecurity;
- Relicensing (change-of-control) fees and partner copy sales;
- Environmental, health and safety risks; including those related to the COVID-19 pandemic;
- Federal and provincial government laws and regulations, including those pertaining to taxation, royalty rates, environmental protection, public health and safety;
- Competition;
- Dependence on key management, operations and marketing personnel;
- The loss of seismic data;
- Protection of intellectual property rights;
- The introduction of new products; and
- Climate change.

Pulse cautions that the foregoing list of factors that may affect future results is not exhaustive. Additional information on these risks and other factors which could affect the Company's operations and financial results is included under "Risk Factors" herein, under "Risk Factors" in the Company's most recent annual information form, and in the Company's most recent audited annual financial statements, management information circular, quarterly reports, material change reports and news releases. Copies of the Company's public filings are available on SEDAR at www.sedar.com.

When relying on forward-looking information to make decisions with respect to Pulse, investors and others should carefully consider the foregoing factors and other uncertainties and potential events. Furthermore, the forward-looking information in this MD&A is provided as of the date of this MD&A and the Company does not undertake any obligation to update publicly or to revise any of the included forward-looking information, except as required by law. The forward-looking information in this document is provided for the limited purpose of enabling current and potential investors to evaluate an investment in Pulse. Readers are cautioned that such forward-looking information may not be appropriate, and should not be used, for other purposes.

Independent Auditors' Report

TO THE SHAREHOLDERS OF PULSE SEISMIC INC.

OPINION

We have audited the consolidated financial statements of Pulse Seismic Inc. (the "Company"), which comprise the consolidated statements of financial position as at December 31, 2021 and December 31, 2020, and the consolidated statements of net earnings (loss) and comprehensive income (loss), changes in equity and cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as at December 31, 2021 and December 31, 2020, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards.

BASIS FOR OPINION

We conducted our audits in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audits of the consolidated financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

KEY AUDIT MATTERS

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Revenue recognition

The accounting policy for revenue recognition is set out in Note 4(a) and Note 5 to the consolidated financial statements. The transfer of control of seismic data from data library sales was identified as a key audit matter as the point in time in which control transfers to the customer may require management's judgment. Significant auditor judgment was required to evaluate evidence for the point in time in which a customer obtains control of seismic data in a data library sale.

We responded to this matter by performing procedures in relation to revenue recognition. Our audit work in relation to this included, but was not restricted to, the following:

- We selected a sample of data library sales contracts throughout the year to evaluate the point in time when control of the data library is transferred to the customer;
- We verified the completion of performance obligations satisfied at a point in time through proof of data transfer;
- We assessed the receipt and collectibility of the revenue recognized on data library sales; and,
- We assessed the appropriateness of the disclosures relating to recognition of revenue in the notes to the consolidated financial statements.

OTHER MATTER

The consolidated financial statements of the Company as at and for the year ended December 31, 2020 were audited by another auditor who expressed an unmodified opinion on those consolidated financial statements on February 17, 2021.

OTHER INFORMATION

Management is responsible for the other information. The other information comprises Management's Discussion and Analysis.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audits of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audits or otherwise appears to be materially misstated. We obtained Management's Discussion and Analysis prior to the date of this auditor's report. If, based on the work we have performed on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

RESPONSIBILITIES OF MANAGEMENT AND THOSE CHARGED WITH GOVERNANCE FOR THE FINANCIAL STATEMENTS

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

AUDITORS' RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit.

We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Company to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audits and significant audit findings, including any significant deficiencies in internal control that we identify during our audits.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is Stephen Bonnell.

The logo for MNP LLP is written in a stylized, handwritten-style font. The letters 'MNP' are larger and more prominent, with 'LLP' in a smaller font size to the right.

Chartered Professional Accountants

Calgary, Canada

February 17, 2022

Consolidated Statements of Financial Position

(thousands of Canadian dollars)

As at December 31,	Note	2021	2020
ASSETS			
Trade and other receivables	6	15,030	7,527
Prepaid expenses		363	248
Total current assets		15,393	7,775
Seismic data library	7	37,228	46,888
Property and equipment		50	206
Long-term receivables	6	—	1,140
Right-of-use assets	8	228	733
Total non-current assets		37,506	48,967
Total assets		52,899	56,742
LIABILITIES AND SHAREHOLDERS' EQUITY			
Accounts payable and accrued liabilities		2,593	994
Deferred revenue		45	150
Current portion of lease liabilities	8	479	815
Current income tax liabilities		2,527	215
Total current liabilities		5,644	2,174
Long-term debt	9	2,265	27,715
Deferred income tax liabilities	10(b)	572	962
Lease liabilities	8	21	543
Other long-term payable	12	256	82
Total non-current liabilities		3,114	29,302
Total liabilities		8,758	31,476
SHAREHOLDERS' EQUITY			
Share capital	11	74,569	74,581
Contributed surplus		2,702	2,500
Deficit		(33,130)	(51,815)
Total shareholders' equity		44,141	25,266
Total liabilities and shareholders' equity		52,899	56,742

Subsequent event

22

See accompanying notes to consolidated financial statements.

On behalf of the Board:



Robert Robotti
Chair of the Board



Paul Crilly
Audit and Risk Committee Chair

Consolidated Statements of Net Earnings (loss) and Comprehensive Income (loss)

(thousands of Canadian dollars except per share data)

Years ended December 31,	Note	2021	2020
Revenue			
Data library sales	5	48,717	11,011
Other revenue		433	338
Total revenue		49,150	11,349
Operating expenses			
Amortization of seismic data library	7	10,010	11,348
Salaries, internal commissions and benefits	14	4,613	2,468
Other selling, general and administrative costs	15	1,905	1,495
Depreciation		614	667
Total operating expenses		17,142	15,978
Results from operating activities		32,008	(4,629)
Financing costs			
Financing expenses	16	1,889	2,200
Interest income		(62)	(214)
Net financing costs		1,827	1,986
Earnings (loss) before income taxes		30,181	(6,615)
Current income tax expense		9,003	395
Deferred income tax recovery		(336)	(224)
Income tax expense	10(d)	8,667	171
Net earnings (loss) and comprehensive income (loss)		21,514	(6,786)
Net earnings (loss) per share, basic and diluted	13	0.40	(0.13)

See accompanying notes to consolidated financial statements.

Consolidated Statements of Changes in Equity

(thousands of Canadian dollars, except number of shares)

	Note	Number of shares issued	Share capital	Contributed surplus	Deficit	Total equity
Balance at January 1, 2020		53,793,317	74,581	2,421	(45,029)	31,973
Net loss for the period		—	—	—	(6,786)	(6,786)
Share-based compensation	12	—	—	264	—	264
Settlement of vested long-term incentive plan award	12	—	—	(106)	—	(106)
Tax effect of equity-settled share-based compensation	10(c)	—	—	(79)	—	(79)
Balance at December 31, 2020		53,793,317	74,581	2,500	(51,815)	25,266

	Note	Number of shares issued	Share capital	Contributed surplus	Deficit	Total equity
Balance at January 1, 2021		53,793,317	74,581	2,500	(51,815)	25,266
Net earnings for the period		—	—	—	21,514	21,514
Share-based compensation	12	—	—	311	—	311
Settlement of vested long-term incentive plan award	12	—	—	(163)	—	(163)
Tax effect of equity-settled share-based compensation	10(c)	—	—	54	—	54
Normal course issuer bid	11(a)	(8,600)	(12)	—	(5)	(17)
Dividends paid	11(b)	—	—	—	(2,824)	(2,824)
Balance at December 31, 2021		53,784,717	74,569	2,702	(33,130)	44,141

See accompanying notes to consolidated financial statements.

Consolidated Statements of Cash Flows

(thousands of Canadian dollars)

Years ended December 31,	Note	2021	2020
Cash flows provided by (used in):			
Operating:			
Net earnings (loss) and comprehensive income (loss)		21,514	(6,786)
Adjustment for:			
Amortization of seismic data library	7	10,010	11,348
Depreciation		614	667
Income tax expense	10(d)	8,667	171
Equity-settled share-based compensation	12	311	264
Net financing costs		1,827	1,986
Interest and standby fees paid		(1,893)	(1,856)
Interest paid - lease liabilities	8	(45)	(112)
Interest received		—	2
Income tax paid		(6,688)	(182)
Income tax received		—	78
		34,317	5,580
Net change in non-cash working capital	17	(4,518)	(1,766)
Cash provided by operating activities		29,799	3,814
Financing:			
Normal course issuer bid	11(a)	(17)	—
Shares purchased for equity-settled share-based payments	12	(163)	(106)
Proceeds from long-term debt		—	17,978
Repayment of long-term debt		(25,603)	(21,775)
Dividends paid	11(b)	(2,824)	—
Lease payments for principal		(771)	(703)
Debt transaction costs		(63)	(174)
Cash used in financing activities		(29,441)	(4,780)
Investing:			
Seismic data digitization and related costs	7	(350)	(383)
Additions to property and equipment		(8)	(7)
Cash used in investing activities		(358)	(390)
Decrease in cash and cash equivalents		—	(1,356)
Cash and cash equivalents, beginning of year		—	1,356
Cash and cash equivalents, end of year		—	—

See accompanying notes to consolidated financial statements.

Notes to Consolidated Financial Statements

INFORMATION AS AT DECEMBER 31, 2021 AND 2020 AND FOR THE YEARS ENDED DECEMBER 31, 2021 AND 2020

(Tabular amounts in thousands of Canadian dollars, except per share data, numbers of shares and other exceptions as indicated).

1. Reporting entity

Pulse Seismic Inc. (the Company) was incorporated under the Canada Business Corporations Act and is a publicly-listed company on the Toronto Stock Exchange (TSX) trading under the symbol PSD and on the OTCQX International trading under the symbol PLSDF. The Company's registered office is located at 421, 7th Avenue SW in Calgary, Alberta. The Company is a provider of seismic data to the energy and resource sector in western Canada.

2. Basis of preparation

(A) STATEMENT OF COMPLIANCE

The consolidated financial statements were prepared in accordance with International Financial Reporting Standards (IFRS).

The consolidated financial statements were prepared by the Company's management and were approved by the Board of Directors on February 17, 2022.

(B) BASIS OF PRESENTATION

The consolidated financial statements include the accounts of the Company's wholly-owned subsidiaries. Certain comparative figures have been reclassified to conform to the current year's presentation.

(C) BASIS OF MEASUREMENT

The consolidated financial statements were prepared on the historical cost basis.

(D) FUNCTIONAL AND PRESENTATION CURRENCY

The consolidated financial statements are presented in Canadian dollars, the Company's functional currency. All financial information presented in Canadian dollars has been rounded to the nearest thousand, except per share data, number of shares and other exceptions as indicated.

(E) BASIS OF CONSOLIDATION

(I) JOINT OPERATIONS

Certain of the Company's seismic data library assets are jointly owned with others. The consolidated financial statements include the Company's share in the joint assets, joint liabilities, expenses incurred and income earned from the joint operations.

(II) TRANSACTIONS ELIMINATED ON CONSOLIDATION

Intra-group balances and transactions, and any unrealized income and expenses arising from intra-group transactions, are eliminated in preparing the consolidated financial statements.

(F) USE OF ESTIMATES AND JUDGEMENTS

Preparing the consolidated financial statements in accordance with IFRS required management to make estimates and judgements that affected the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the revenue and expenses attributed to the reporting period. Actual results could differ from those estimates.

Estimates and underlying assumptions are reviewed at a minimum annually, as required by IFRS. Changes to accounting estimates are recognized in the year in which the estimates are revised and in any future years affected.

The following note provides information about critical judgements in applying accounting policies that have the most significant effect on the amounts recognized in the consolidated financial statements:

- Note 4(a) – Traditional data library sales are conducted under various types of licensing agreements. These contracts may require management to use judgement to assess when control of seismic data has transferred to the customer in accordance with IFRS 15. As a result, these judgments affect the timing of revenue recognition.
- Note 4(g) – The Company uses judgement in determining its cash-generating units (CGUs) for purposes of impairment testing. The determination was based on management's judgement in regard to the smallest identifiable group of seismic data that generates cash flows largely independent of the cash flows from other data. Changes in the determination of CGUs could have a significant impact on the carrying value of the assets and result in additional impairment charges or reversal of impairment charges in future periods.

The following notes provide information about assumptions and estimation uncertainties that could result in a material adjustment in future years:

- Note 4(e) – Amortization of seismic data library is based on management's estimates of expected future sales, expected useful lives, market developments and experience. These estimates may change due to changes in market conditions, potential prospects, exploration licence duration, exploration and development in certain areas, government regulations and general economic conditions. Because of the inherent difficulty in estimating market developments and future sales, the amortization rates might not accurately reflect the useful life of the data library. The amortization rates are adjusted if it is determined that estimated useful lives have changed.
- Note 4(g) – Impairment tests, if required, involve the estimation of future cash flows, requiring management to make judgments regarding long-term forecasts of future revenues and costs related to the seismic data library and residual values. These forecasts are subject to uncertainty as they require assumptions about demand for seismic data and future market conditions. Significant changes in these assumptions could require a provision for impairment in a future period.
- Note 4(h) – Deferred tax assets are recognized for all unused tax losses to the extent that it is probable that taxable profit will be available against which the losses can be utilized. Significant management judgment is required to determine the deferred tax assets amounts that can be recognized, based on the likely timing and level of future taxable profits. The estimates of projected future taxable profits are based on a variety of factors and assumptions, many of which are subjective and outside the Company's control. Accordingly, these estimates could differ significantly from year to year, and the Company might end up realizing more or less of the deferred tax assets than it has recognized in the consolidated financial statements
- Note 4(k) – The number of Performance Share Units (PSUs) expected to vest is based on management's estimates of expected future results and vesting criteria in subsequent years. These forecasts are uncertain as they require assumptions about future market conditions, revenues, expenses and vesting criteria. Significant changes in the assumptions could require an adjustment to the amount of share-based compensation recognized.

3. COVID-19 estimation uncertainty

Ongoing uncertainty caused by the global pandemic continues to influence global oil and natural gas demand and commodity pricing. These factors are likely to continue affecting business conditions for the Company.

There may continue to be adverse impacts on the Company, including but not limited to:

- Declines in revenue and cash flows as the Company's customers, which are concentrated in the oil and natural gas industry, once again cut capital budgets and field activities; and
- Non-performance by the Company's customers, in turn resulting in non-payment of accounts receivable and customer defaults.

The situation surrounding COVID-19 evolved significantly in 2021 with the widespread availability of vaccines.

The Company continues to monitor administrative and operating expenses and capital spending plans closely.

4. Significant accounting policies

The accounting policies set out below have been applied consistently to both years presented in these consolidated financial statements.

(A) REVENUE RECOGNITION

Revenue for data library sales is recognized when a customer obtains control of seismic data through receipt and acceptance of the data, at which point invoices are generated. Invoices are usually payable within 30 days.

Some customers request extended payments terms which, when granted by the Company usually are not for more than one year. For such transactions, the Company discounts its account receivable and the related amount of data library sales revenue is reallocated to interest income.

(B) BUSINESS COMBINATIONS/ASSET ACQUISITIONS

Where appropriate, the Company applies the acquisition method to account for business combinations. The Company measures goodwill as the fair value of the consideration transferred, less the fair value of the identifiable assets acquired and liabilities assumed, all measured at the acquisition date.

The Company makes judgments on a case-by-case basis to determine whether an acquisition meets the definition of a business and, in turn, to determine whether a transaction should be accounted for as a business combination or as an asset acquisition. An optional concentration test may also be applied that permits a simplified assessment of whether or not an acquired set of activities and assets is a business.

The concentration test is met if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar identifiable assets. If the test is met, the Company can elect to account for the acquisition as an asset acquisition instead of a business acquisition.

(C) FINANCIAL INSTRUMENTS

Financial assets of the Company include cash and cash equivalents and trade receivables. Financial liabilities of the Company mainly comprise accounts payable and accrued liabilities, other long-term payable, and long-term debt.

Classification and measurement of financial assets and financial liabilities are included in the following table:

Financial Asset (Liability)	Category	Measurement
Cash and cash equivalents	Assets at amortized cost	Amortized cost
Accounts receivable	Assets at amortized cost	Amortized cost
Accounts payable and accrued liabilities	Financial liabilities at amortized cost	Amortized cost
Other long-term payable	Financial liabilities at amortized cost	Amortized cost
Long-term debt	Financial liabilities at amortized cost	Amortized cost

(D) CASH AND CASH EQUIVALENTS

Short-term investments with an original maturity of three months or less, net of the operating line of credit, are considered to be cash equivalents.

(E) SEISMIC DATA LIBRARY

The seismic data library has a finite useful life and is measured at cost less accumulated amortization and impairment losses. Additions to the seismic data library arise in two distinct ways: (i) participation surveys and (ii) the purchase of existing data. Costs directly incurred in acquiring, processing and otherwise completing seismic surveys are capitalized to the seismic data library.

Subsequent expenditures on data library assets, such as reprocessing and digitization, are capitalized only when the expenditure increases the asset's future economic benefits. All other expenditures are recognized in earnings as incurred.

Amortization is calculated over the cost of the asset.

The costs of purchased data are amortized on a straight-line basis over seven years.

Amortization is based on management's estimates of expected future sales, expected useful lives, market developments and experience. These estimates may change due to changes in market conditions, potential prospects, exploration licence duration, exploration and development in certain areas, government regulations and general economic conditions. Amortization methods and useful lives are reviewed at each financial year-end and adjusted if appropriate.

(F) PROPERTY AND EQUIPMENT

Property and equipment are recorded at cost less accumulated depreciation and impairment losses. Cost includes expenditures that are directly attributable to the acquisition of the asset.

Depreciation is calculated over the depreciable amount, which is the cost of an asset less its residual value. Depreciation is recognized in earnings over the estimated useful life of each significant component of an item of property and equipment on a straight line basis.

Depreciation is provided using the following methods:

	Straight Line
Computer hardware and software	3 years
Office equipment	5 years
Leasehold improvements	Balance of lease term

(G) IMPAIRMENT OF LONG-LIVED ASSETS

The carrying amounts of the seismic data library, property and equipment, and intangible assets are reviewed at each reporting date by management to determine whether there is an indication of impairment. If so, the asset's recoverable amount is estimated based on the higher of its fair value less costs to sell and its value in use.

Factors considered important by the Company that could trigger an impairment assessment include:

- Significant underperformance relative to expected operating results based on historical and/or projected data;
- Significant changes in the manner of the use of the asset or the strategy of the overall business; and
- Significant negative industry or economic trends.

The recoverable amount of tangible and intangible assets is the greater of value in use and fair value less costs of disposal. In assessing value in use, the estimated future cash flows are discounted to their present value using a discount rate that reflects current market assessment of the time value of money and the risks specific to the asset. For the purpose of impairment testing, assets are classified in the smallest grouping that generates cash flows from continuing use that are largely independent of the cash flows of other assets or groups (the CGU).

An impairment loss is recognized if the carrying amount of an asset or its CGU exceeds its estimated recoverable amount. Impairment losses are recognized in earnings or loss. Impairment losses recognized in respect of a CGU are allocated to the carrying amount of the assets in the unit on a pro-rata basis.

Impairment losses for assets recognized in prior periods are assessed at each reporting date for any indications that the loss has decreased. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount and only to the extent that the assets' carrying value does not exceed the carrying amount that would be determined, net of amortization or depreciation, if no impairment loss had been recognized.

(H) INCOME TAXES

Income tax expense comprises current and deferred tax. Income tax expense is recognized in earnings or loss except to the extent that it relates to items recognized directly in equity, in which case it is recognized in equity or in other comprehensive income.

Current tax is the expected tax payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to taxes payable in respect of previous years.

Deferred tax is recognized in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is measured at the tax rates expected to be applied to the temporary differences when they are reversed, based on the laws enacted or substantively enacted by the reporting date. Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realized simultaneously.

Deferred tax is not recognized for the following differences:

- The initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable income or loss; and
- Differences relating to investments in subsidiaries and jointly controlled entities to the extent that it is probable they will not be reversed in the foreseeable future.

A deferred tax asset is recognized to the extent that it is probable that future taxable income will be available against which deductible temporary differences can be utilized. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable the related tax benefit will be realized.

(I) PER SHARE AMOUNTS

Basic per share amounts are calculated using the weighted average number of shares outstanding during the period.

(J) SHARE CAPITAL

Common shares are classified as equity. When shares are sold, the consideration received, including directly attributable costs, net of any tax effect, is recognized as a change in share capital. The Company purchases shares for cancellation under its normal course issuer bid (NCIB). The cost of purchasing shares for cancellation is first charged to share capital to the extent of the average carrying value of the common shares purchased and the excess is charged to retained earnings. No gain or loss is recognized in the consolidated statements of net loss and comprehensive loss on the purchase, sale, issuance or cancellation of the Company's own equity instruments.

(K) SHARE-BASED PAYMENTS

The Company has a long-term incentive plan (LTIP) under which participants are granted restricted share units (RSUs) and performance share units (PSUs). All amounts awarded are at the discretion of the Board of Directors. RSUs and PSUs have accompanying dividend-equivalent rights and, therefore, additional RSUs and PSUs are issued to reflect dividends declared, if applicable, on the common shares. The plan's trustee will purchase common shares on the open market for the after-tax number of RSUs and PSUs vested with funds provided by the Company. The RSUs and PSUs are treated as equity-settled share-based payments and the related payroll taxes are treated as cash-settled share-based payments.

The compensation expense is recognized over the vesting period. For equity-settled share-based payments, the compensation expense is based on the number of RSUs and PSUs expected to vest and the market value of a common share of the Company on the grant date, with a corresponding increase to contributed surplus. For cash-settled share-based payments, the compensation expense is measured initially at the fair market value of the Company's shares at the grant date and subsequently adjusted for the additional shares granted based on the reinvestment of notional dividends and the market value of the shares at the end of each reporting period, with a corresponding increase to liabilities.

(L) EMPLOYEE BENEFITS

Short-term employee benefit obligations are calculated on an undiscounted basis and are expensed as the related services are provided.

A liability is recognized for the amount expected to be paid under short-term cash bonus or profit-sharing plans if the Company has a current legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

(M) LEASES

At inception of a contract, the Company assesses whether a contract is or contains a lease. A contract is or contains a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. In order to perform this assessment, the Company determines whether: i) the Company has the right to obtain substantially all of the economic benefits from use of the asset through the period of use; and ii) the Company has the right to direct the use of the identified asset. The term of the lease is determined as the non-cancellable period of a lease and periods in which there is reasonable certainty the Company will exercise an option to extend or cancel a lease. The Company considers all relevant facts and circumstances that would create an economic incentive to extend or terminate a lease.

When a lease is identified, a right-of-use asset and a liability are recognized. At the commencement date of a lease, the Company measures lease liabilities at the present value of remaining lease payments, discounted using the interest rate implicit in a lease, if that rate can be readily determined. If that rate cannot be readily determined, the Company uses its incremental borrowing rate. Prospectively, the carrying amount of lease liabilities is increased by interest, offset by lease payments made. The initial cost of right-of-use assets is measured as the value of the lease liability, adjusted for any lease incentives received and initial direct costs. Right-of-use assets are depreciated over the shorter of the lease term or the useful life of the asset and recognized as cost less any accumulated depreciation and impairment losses.

(N) NET FINANCING COSTS OR INCOME

Financing expenses consist of interest and standby fee expense on long-term debt and amortization of the deferred financing costs. All borrowing costs are recognized in earnings or loss using the effective interest rate method.

Interest income is earned from term deposits and discounted accounts receivable with payment terms.

(O) GOVERNMENT GRANTS

Government grants are recognized when there is reasonable assurance that the grant will be received and all conditions associated with the grant are met. The Company has elected to deduct the wage subsidy from salaries, internal commissions and benefits and the rent subsidy from other selling, general and administrative costs.

5. Revenue

DATA LIBRARY SALES

There are three ways to disaggregate the Company's data library sales: transaction type, data type and geographically. Revenue fluctuations are a normal part of the seismic data library business, and data library sales can vary significantly year-over-year by transaction type, data type and geographically.

Traditional data library sales can occur at any time. This is due to the nearly continual changes in oil and natural gas industry conditions, increased demand for seismic data covering a specific area or reservoir type ("play"), and the timing of public offerings of petroleum and natural gas rights ("land sales").

Transaction-based sales can also occur at any time. This is due to corporate merger-and-acquisition, joint venture and asset disposition activity by the Company's customers, which is unpredictable.

The following tables provide a summary of the Company's revenue disaggregated by type:

(A) TRANSACTION TYPE

Years ended December 31,	2021	2020
Traditional sales	12,942	4,271
Transaction-based sales	35,775	6,740
Total data library sales	48,717	11,011

Traditional data library sales are conducted under various types of sale contracts. These are classified as data library sales, library cards, commitment cards and review-and-possession agreements. The unearned portion of a contract's value is deferred until the Company's revenue recognition criteria are met, with data library sales revenue being recognized upon transfer of control of the seismic data to the customer.

There are three main types of transaction-based sales: partnership or joint venture, corporate merger or acquisition, and oil and natural gas asset or group sales.

The first type, the partnership or joint venture sale, occurs when an oil and natural gas asset holder elects to pool their expertise, capital and/or assets with one or more new participants to explore or develop a play. Any new technical or operational participant that wishes to view or interpret the seismic data must purchase a data licence from the Company.

The second type, a corporate merger or acquisition sale, is triggered when the seismic data is transferred to the new organization. The buyer has 30 days to determine whether they would like to pay a change-of-control fee to keep the data licence or return the data to the Company.

In the third type, the sale of an oil and natural gas asset or group of assets, the related seismic data licence is not transferable. No rights to the seismic data accrue to the buyer, and there are no terms of payment in the licence agreement. Should the buyer be interested in the Company's seismic data, they must license the data from the Company. This type of sale is nevertheless classified as transaction-type because the triggering event is a transaction.

The precise terms of individual licence agreements can vary greatly. Change-of-control fees and joint venture copy fees may not always be payable, and licence agreements may not always be non-assignable.

(B) DATA TYPE

Years ended December 31,	2021	2020
2D data sales	5,348	1,183
3D data sales	43,369	9,828
Total data library sales	48,717	11,011

The Company's data library consists of 2D and 3D seismic data. As 3D seismic licence contracts are generally larger than 2D seismic licence contracts, the percentage of seismic data library sales generated from 2D and 3D data sales fluctuates significantly depending on the number of 3D seismic sale contracts signed during a given period.

(C) GEOGRAPHICAL BREAKDOWN

Years ended December 31,	2021	2020
Alberta sales	41,022	7,571
British Columbia sales	6,171	2,686
Other area sales	1,524	754
Total data library sales	48,717	11,011

The Company's customers are currently and generally focusing on liquids-rich natural gas and light oil pools found primarily in a broad corridor running from northwest of Calgary, Alberta, along the Foothills of the Rocky Mountains to the British Columbia border, as compared to "dry" natural gas more often found in British Columbia, on Alberta's eastern prairies and in Saskatchewan and Manitoba. For the year ended December 31, 2021, 84 percent (2020 - 69 percent) of the data library sales were from data located in Alberta, 13 percent from British Columbia (2020 - 24 percent) and 3 percent from other areas (2020 - 7 percent).

6. Trade and other receivables

As at December 31,	2021	2020
Data library trade receivables	14,686	7,472
Other	344	131
Discounted accounts receivables - current	–	(76)
	15,030	7,527
Total long-term receivables	–	1,155
Discounted accounts receivables - long-term	–	(15)
	–	1,140

7. Seismic data library

	2021	2020
Cost		
Opening balance, January 1	506,448	506,065
Acquisitions through purchases and related cost (Note 17)	350	383
Closing balance, December 31	506,798	506,448
Accumulated amortization		
Opening balance, January 1	459,560	448,212
Amortization for the year	10,010	11,348
Closing balance, December 31	469,570	459,560
Carrying amount, December 31	37,228	46,888

At December 31, 2021 and 2020, the Company assessed the CGUs in its seismic data library for indicators of impairment, as required under IFRS, and concluded there were no new indicators and, accordingly, that no impairment test was required.

8. Right-of-use (ROU) assets and lease liabilities

The ROU assets and related lease liabilities are included in the tables below:

ROU Assets

As at December 31,	2021	2020
Office and warehouse leases	733	1,230
Less		
Depreciation in the year	(505)	(497)
ROU assets	228	733

Lease Liabilities

As at December 31,	2021	2020
Opening balance	1,358	2,061
Repayments on principal and interest	(903)	(815)
Interest expense	45	112
Total lease liabilities	500	1,358
Less		
Current portion	(479)	(815)
Long-term portion	21	543

In January 2017 the Company signed a sublease agreement for an office space, which expires in March 2023.

On January 15, 2019, following the acquisition of Seitel Canada Ltd. (Seitel), the Company had to assume leases for a warehouse and an office space. The lease agreement for the warehouse expires in April 2022 and for the office space in November 2022.

9. Long-term debt

As at December 31,	2021	2020
Revolving credit facility	2,375	17,978
Subordinated debt	—	10,000
Deferred financing cost	(110)	(263)
Total long-term debt	2,265	27,715

On June 29, 2021, the Company repaid the \$10.0 million subordinated debt incurred as partial financing for the Seitel acquisition in January 2019. The subordinated debt had a 10 percent interest rate. The Company paid a \$750,000 prepayment premium as per the terms of the agreement. The \$750,000 was included in financing expenses.

On December 21, 2021, the Company renewed its revolving credit facility and extended the maturity date for two years to January 15, 2025. The facility's available borrowing amount remains at \$25.0 million and all other major terms, including financial covenants, are unaffected by the renewal.

Significant terms of the credit facility are:

- Interest is calculated based on the lender's prime rate, bankers' acceptance rate or LIBOR, plus an applicable margin based on the covenant ratio of total debt to adjusted EBITDA following a ten-tier structure. At December 31, 2021, the applicable interest rate was 3.2 percent, based on level 1 of the 10 rates specified under the facility;
- Standby fee is based on the daily undrawn balance of the credit facility and the Company's total debt to adjusted EBITDA ratio following a ten-tier margin structure. At December 31, 2021, the applicable standby fee was set at level 1 of the 10 rates specified under the facility;
- Three-year term until January 15, 2025, with an extension of up to one year available on January 15 of every year with the approval of the lender. If the extension is not granted, any outstanding amounts will be payable on the then-current applicable maturity date; and
- Security through a charge on all of the assets of the Company and its material subsidiaries.

The revolving credit facility also includes the following financial covenants:

(1) MAXIMUM LONG-TERM DEBT TO ADJUSTED EBITDA RATIO

The long-term debt to adjusted EBITDA ratio shall not be greater than 3.0:1 on December 31, 2021 and thereafter.

Adjusted EBITDA is to be calculated on a trailing 12-month basis and is defined as earnings or loss before interest, income taxes, depreciation and amortization, plus extraordinary losses, non-cash losses and expense charges, and any other unusual or non-recurring cash charges, expenses or losses consented to by the lenders, less participation survey revenue, lease payments treated as capital lease, warehouse storage fees, extraordinary gains and non-cash gains and income. Adjusted EBITDA is to be adjusted for acquisitions or dispositions to reflect such acquisition or disposition as if it occurred on the first day of such calculation period.

(2) MINIMUM INTEREST COVERAGE RATIO

The minimum interest coverage ratio is defined as the ratio of adjusted EBITDA to interest expense.

The minimum interest coverage ratio shall not be less than 2.5:1 at December 31, 2021 and thereafter.

At December 31, 2021, the long-term debt to adjusted EBITDA ratio was 0.06:1 and the interest coverage ratio was 23:1. The Company was in compliance with all covenants at December 31, 2021.

At December 31, 2021, Pulse's revolving credit facility balance was \$2.4 million with \$22.6 million of additional borrowing capacity.

10. Deferred tax assets and liabilities

(A) UNRECOGNIZED DEFERRED TAX ASSETS

Deferred tax assets have not been recognized in respect of the following temporary differences.

As at December 31,	2021	2020
Foreign exploration and development expense (FEDE)	712	785
Capital losses	3,297	3,297
	4,009	4,082

Deferred tax assets for these items have not been recognized because utilization of FEDE against future taxable income and future capital gains is not probable.

(B) RECOGNIZED DEFERRED TAX ASSETS AND LIABILITIES

Deferred tax assets and liabilities are attributable to the following:

As at December 31,	2021	2020
Deferred income tax assets:		
Financing fees	55	32
Resource expenditures	124	119
Long-term incentive plan	232	72
Deferred income tax asset	411	223
Deferred income tax liability:		
Seismic data library and participation surveys	983	1,185
Deferred income tax liabilities	983	1,185
Net deferred income tax liabilities	572	962

(C) MOVEMENT IN TEMPORARY DIFFERENCES DURING THE YEAR

	Deferred tax liabilities (assets) January 1, 2020	Recognized in income	Recognized in equity	Deferred tax liabilities (assets) December 31, 2020
Resource expenditures	(148)	29	–	(119)
Financing costs	(12)	(20)	–	(32)
Long-term incentive plan	(142)	(9)	79	(72)
Seismic data library	1,409	(224)	–	1,185
	1,107	(224)	79	962

	Deferred tax liabilities (assets) January 1, 2021	Recognized in income	Recognized in equity	Deferred tax liabilities (assets) December 31, 2021
Resource expenditures	(119)	(5)	–	(124)
Financing costs	(32)	(23)	–	(55)
Long-term incentive plan	(72)	(106)	(54)	(232)
Seismic data library	1,185	(202)	–	983
	962	(336)	(54)	572

(D) RECONCILIATION OF EFFECTIVE TAX RATE

In 2021 the combined federal and provincial income tax rate was reduced from 24 percent to 23 percent because of the reduction of 1 percent in the provincial income tax rate. Income tax expense differs from the amount that would be computed by applying the basic combined federal and provincial statutory income tax rate to earnings before income taxes. The reasons for the differences are as follows:

Years ended December 31,	2021	2020
Earnings (loss) before income tax	30,181	(6,615)
Combined federal and provincial income tax rate	23%	24%
Expected income tax expense	6,942	(1,588)
Effects of difference:		
Non-deductible expenses	6	6
Change in valuation allowance	(17)	(19)
Permanent difference related to the seismic data library acquired in January 2019	1,824	1,890
Permanent difference related to IFRS 16, Leases	(88)	(69)
Change in Alberta future corporate income tax rates	–	(49)
Actual income tax expense	8,667	171

11. Share capital

(A) SHARE CAPITAL

The Company's authorized share capital consists of an unlimited number of common and an unlimited number of preferred shares, issuable in series. The shares have no stated par value. No preferred shares have been issued. All common shares are entitled to receive dividends as declared and are entitled to one vote per share at Company meetings.

On October 29, 2021, the Company announced the renewal of its NCIB. The Company may purchase, for cancellation, up to a maximum of 3,097,433 common shares, equal to 10 percent of the public float of 30,974,330 common shares as at October 20, 2021. The Company is also limited under the NCIB to purchasing no more than 8,113 common shares on any given day, subject to the block purchase exemption under the TSX rules. The NCIB will continue until November 1, 2022. Purchases will be made on the open market through the TSX or alternative platforms at the market price of such shares. All shares purchased under the NCIB will be cancelled.

During the year ended December 31, 2021 the Company purchased for cancellation 8,600 common shares pursuant to its NCIB at a weighted average price of \$2.01 per share, including brokerage fees, for a total cost of \$17,300. The total cost paid, including fees, was first charged to share capital to the extent of the average carrying value of the common shares purchased and the excess of \$5,400 was charged to the deficit.

(B) DIVIDENDS

On October 27, 2021, the Company approved the resumption of regular quarterly dividends of \$0.0125 per share and declared a one time special dividend of \$0.04 per common share. The first regular dividend declared plus the special dividend totalling \$2.8 million were paid on November 29, 2021 to shareholders of record at the close of business on November 12, 2021.

12. Share-based payments

The Company has an LTIP for employees, officers and Directors designed to align the Company's long-term incentive compensation with its performance and to increase individual share ownership.

The LTIP awards consist of RSUs and PSUs, with Directors being granted RSUs only. Upon vesting, each RSU and PSU entitles the holder to one common share of the Company. RSUs and PSUs have accompanying dividend-equivalent rights and, therefore, additional RSUs and PSUs are issued to reflect dividends declared, if applicable, on the common shares.

In determining the amount of equity-settled share-based compensation related to PSUs, management makes estimates about future results and vesting criteria. It is reasonably possible that future outcomes could differ from the estimates, which are based on current knowledge, and require a material adjustment to the share-based compensation expense recorded in future periods. The impact of any change in the number of PSUs expected to vest is recognized in the period the estimate is revised.

On March 31, 2021, 161,805 RSUs and 206,981 PSUs were eligible to vest. The Company's performance in 2020 did not meet the predetermined performance benchmarks and, consequently, no PSUs vested on March 31, 2021. RSUs vest automatically based upon time and, consequently, all of the eligible RSUs vested automatically on March 31, 2021.

To satisfy its obligation, in April 2021 the Company provided \$163,000 to the plan's trustee to purchase common shares on the open market for the total after-tax number of cash- and equity-settled RSUs that vested on March 31, 2021. The related payroll taxes of \$110,000 were paid in the second quarter to settle the accrued cash-settled portion of the share-based payment liabilities

During the year ended December 31, 2021, the Company recognized \$727,000 (2020 - \$249,000) in compensation expense related to the LTIP in salaries, internal commissions and benefits on the consolidated statement of comprehensive earnings. The equity-settled portion was \$311,000 (2020 - \$264,000).

At December 31, 2021, the obligation related to the cash-settled portion of the LTIP was \$449,000 (December 31, 2020 - \$143,000) with \$193,000 (December 31, 2020 - \$61,000) included in accounts payable and accrued liabilities and \$256,000 (December 31, 2020 - \$82,000) included in other long-term payable.

The following summarizes activity in the Company's LTIP during the years ended December 31, 2021 and 2020:

RSUs	2021	2020
Outstanding, January 1	692,140	553,575
Vested and exercised	(161,805)	(186,658)
Granted	325,376	339,295
Reinvested	18,231	—
Cancelled or forfeited	(29,229)	(14,072)
Outstanding, December 31	844,713	692,140

PSUs	2021	2020
Outstanding, January 1	876,973	704,962
Granted	385,938	423,195
Reinvested	23,292	—
Cancelled or forfeited	(206,981)	(251,184)
Outstanding, December 31	1,079,222	876,973

The Company's performance in 2021 met a percentage of the predetermined performance benchmarks and, consequently, 9.5 percent of the PSUs will vest on March 31, 2022. RSUs vest automatically based upon time and, consequently, all of the eligible RSUs will vest automatically on March 31, 2022.

13. Earnings (loss) per share

(A) BASIC EARNINGS (LOSS) PER SHARE

The calculation of basic earnings per share at December 31, 2021 was based on the net earnings attributable to common shareholders of \$21.5 million for the year ended December 31, 2021 (year ended December 31, 2020 - net loss of \$6.8 million) and a weighted average number of common shares of 53,792,984 (2020 - 53,793,317).

(B) DILUTED EARNINGS PER SHARE:

The Company does not have any dilutive securities.

14. Salaries, internal commissions and benefits

Years ended December 31,	Note	2021	2020
Salaries and benefits		2,153	1,909
Internal commissions		563	158
Registered retirement savings plan contributions		135	109
Short-term incentives		1,035	43
Long-term incentives	12	727	249
Total salaries, internal commissions and benefits		4,613	2,468

In 2021, the Company benefited from the Canada Emergency Wage Subsidy (CEWS), a federal government COVID-19 related financial relief program, in the amount of \$312,000 (2020 - \$451,000). The Company's reported expenses for salaries and benefits are net of these amounts.

15. Other selling, general and administrative costs

Years ended December 31,	2021	2020
External commissions	25	(12)
Occupancy costs and other leases	244	377
Office and general costs	272	202
Information technology	247	331
Reprocessing and data storage	168	153
Directors' fees and corporate costs	356	308
Professional fees	593	316
Bad debt expense	—	(180)
Total other selling, general and administrative costs	1,905	1,495

In 2021, the Company benefited from the Canada Emergency Rent Subsidy (CERS), a federal government COVID-19 related financial relief program, in the amount of \$315,000 (2020 - \$124,000). The Company's reported occupancy cost and other leases are net of these amounts.

The allowance for impairment of trade receivables recorded in 2019 was related to one overdue account. On July 20, 2020, the Company received full payment from this customer and the aforementioned allowance was reversed in the third quarter of 2020 against the other selling, general and administrative costs.

16. Financing expenses

Years ended December 31,	Note	2021	2020
Interest expense		1,513	1,734
Standby fees		115	160
Deferred financing fees amortization		216	174
Financing fees		—	20
Lease liabilities interest expense	8	45	112
Total financing expenses		1,889	2,200

The interest expense includes the interest related to the revolving credit facility and the subordinated debt.

17. Net change in non-cash operating working capital

Years ended December 31,	2021	2020
Trade and other receivables	(7,503)	(3,572)
Prepaid expenses	(115)	99
Long-term receivable	1,140	3,179
Accounts payable and accrued liabilities	1,599	(144)
Deferred revenue	(105)	(1,444)
Other long-term payable	174	(38)
Others	292	154
Net change in non-cash operating working capital	(4,518)	(1,766)

18. Financial instruments

The Company's risk management policy objectives include the long-term management of the Company's business activities and, wherever possible, mitigation of the associated business risks. The Company has exposure to the following risks from its use of financial instruments:

- Credit risk;
- Liquidity risk; and
- Market risk.

(A) RISK MANAGEMENT

The Board of Directors has overall responsibility for the establishment and oversight of the Company's risk management framework.

The Company's risk management policies are established to identify and analyze the risks faced by the Company, to set appropriate risk limits and controls, and to monitor risks and adherence to limits. The Company, through its training and management standards and procedures, aims to develop a disciplined and constructive control environment in which all employees understand their roles and obligations.

The Audit and Risk Committee oversees how management monitors compliance with the Company's risk management policies and procedures, and reviews the adequacy of the risk management framework in relation to the risks faced by the Company. The Committee conducts reviews of risk management controls and procedures, the results of which are reported to the Board of Directors.

(B) CREDIT RISK

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Company's accounts receivable.

The Company is exposed to credit risk in connection with data sales and participation surveys with its customers. The Company's exposure to credit risk is influenced mainly by each customer's individual characteristics. The nature of the Company's customer base, including the default risk of the industry in which customers operate, has an influence on credit risk. As the Company operates to a large extent in the oil and natural gas industry, nearly all of the trade receivables relate to customers from this industry.

The effective monitoring and control of credit risk is a core competency of the Company. Each new customer is analyzed individually for creditworthiness, including credit reference checks, before payment and delivery terms and conditions such as credit limits are offered. Customer accounts are monitored and accounts receivable aging is regularly reviewed. Certain customers have signed agreements with the Company that provide for extended payment terms. The Company's credit risk increases in these arrangements due to their longer time-frame. The risk is mitigated by attempting to limit these arrangements to major oil and natural gas companies which have long operating histories and adequate resources to fulfill their commitments.

The majority of the Company's customers have been doing business with the Company for many years, and insignificant losses have occurred in the past. The Company does not require customers to provide collateral.

EXPOSURE TO CREDIT RISK

The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk at the reporting date was the value of accounts receivable of \$15.0 million. The Company has a significant concentration of customers in the oil and natural gas industry, with the majority located in Alberta. At December 31, 2021, 89 percent of total accounts receivable were due from three customers. For the year ended December 31, 2021, approximately 85 percent of the Company's data library sales were attributable to nine customers.

The aging of trade receivables at the reporting date was:

	2021		2020	
	Gross	Impairment	Gross	Impairment
Current	14,772	—	8,758	—
Past due 31-60 days	56	—	—	—
Past due 61-90 days	48	—	—	—
More than 90 days	154	—	—	—
Total	15,030	—	8,758	—

Accounts receivable over 90 days are monitored and assessed for impairment. Those accounts are evaluated on a case-by-case basis using information received from the customer and market information.

As of February 17, 2022, the Company has collected \$14.8 million or 98.3 percent of the December 31, 2021 trade and other receivables and believes that all remaining accounts receivable are collectible, based on historical payment behaviour and extensive analysis of customers' underlying credit ratings.

(C) LIQUIDITY RISK

Liquidity risk is the risk that the Company will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled in cash or another financial asset. The Company's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under normal and stressed conditions, without incurring unacceptable losses or risking damage to its reputation.

The Company regularly monitors its cash flow and funding options available in the capital markets, as well as trends in the availability and costs of such funding, with a view to maintaining financial flexibility and limiting repayment risks. The Company does not believe that it will encounter difficulty in meeting its financial obligations. Consolidated cash flow information, including a projection for the remainder of the year where applicable, is presented quarterly to the Audit and Risk Committee, which aids in planning to ensure that the Company has sufficient cash to meet expected operational expenses, including the servicing of financial obligations.

The Company has working capital of \$9.7 million at December 31, 2021 in addition to \$22.6 million available for future draws on its revolving credit facility.

The following are the contractual maturities of financial liabilities at December 31, 2021:

	Carrying amounts	2022	2023	2024	2025 and thereafter
Long-term debt	2,375	—	—	—	2,375
Long-term debt interest	231	76	76	76	3
Accounts payable	2,593	2,593	—	—	—
Current income tax	2,527	2,527	—	—	—
Leases	1,018	940	78	—	—
Long-term payable	256	—	256	—	—
Total	9,000	6,136	410	76	2,378

(D) MARKET RISK

Market risk is the risk that changes in market prices will affect the Company's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimizing the return.

(I) COMMODITY PRICE RISK

The Company is not directly exposed to commodity price risk as it does not have any contracts that are directly based on commodity prices. A change in commodity prices, specifically oil and natural gas prices, could have a material impact on the Company's customers' cash flows and could therefore affect the level of seismic data library sales and participation surveys. Commodity prices are affected by many factors, including supply and demand. The Company has not entered into any commodity price risk contracts. Given that this is an indirect influence, the financial impact on the Company of changing oil and natural gas prices is not reasonably determinable.

(II) INTEREST RATE RISK

The Company's interest rate risk exposure is mainly related to long-term debt. The Company is exposed to interest rate cash-flow risk on its floating-rate long-term debt as described in note 9. Changes in market interest rates will cause fluctuations in future interest payments.

The Company earns minimal interest income on its cash balances.

A change of 100 basis points in interest rates for the year ended December 31, 2021 would have increased or decreased equity and earnings or loss by \$80,000 in 2021 (2020 - \$289,000), assuming all other variables remained constant.

(E) FAIR VALUES

The fair values of cash and cash equivalents, accounts receivable (short and long-term) and accounts payable (short and long-term) approximate their carrying amount largely due to the short-term maturities of these instruments.

19. Capital management

The Company considers its capital structure to include shareholders' equity and long-term debt.

As at December 31,	2021	2020
Shareholders' equity	44,141	25,266
Long-term debt	2,265	27,715
Total capitalization	46,406	52,981

The Company's primary objective when managing capital is to preserve its ability to execute its long-term growth plan of significantly increasing the size of the seismic data library, so that it can maximize revenue and, ultimately, shareholder value. Historically, sales generated from the seismic data library provided the Company with high levels of cash, and its most significant expense is non-cash amortization. Due to this, the Company has been able to repay long-term debt and continue to fund data library growth.

The Company requires flexibility in managing the capital structure so that it can take advantage of opportunities to raise additional capital as opportunities for data acquisitions or participation surveys arise. The Company uses a combination of debt and equity and relies on key internal measures such as the long-term debt to trailing-twelve-month cash EBITDA ratio and the long-term debt to equity ratio to forecast and structure its capital requirements. From time to time the Company purchases its own shares on the market through its NCIB, the timing of which depends on a number of factors including competing capital allocation opportunities under review, market volume activity and market prices.

Cash EBITDA is defined by the Company as earnings before interest, taxes, depreciation and amortization less participation survey revenue, plus non-cash and non-recurring expenses. Cash EBITDA is a measure that does not have any standardized meaning prescribed by IFRS or Canadian generally accepted accounting principles and is therefore unlikely to be comparable to similar measures presented by other issuers.

The long-term debt to trailing-twelve-month cash EBITDA ratio is calculated as long-term debt at the end of the period, divided by cash EBITDA for the previous 12 months. This measure is substantially the same as the total debt to adjusted EBITDA ratio covenant in the Company's credit facility, with the exception that the covenant calculation under the credit facility allows for the addition of normalized cash flow from acquisitions for the months during the trailing 12 months that the Company didn't own the acquired data.

The total long-term debt to annual cash EBITDA ratio is calculated as follows:

Years ended December 31,	2021	2020
Total long-term debt at year-end	2,265	27,715
Divided by:		
Net earnings (loss)	21,514	(6,786)
Less:		
Warehouse rental revenue	(333)	(300)
Plus:		
Net financing costs	1,827	1,986
Income tax expense	8,667	171
Depreciation	614	667
Amortization of seismic data library	10,010	11,348
Equity-settled share-based compensation	311	264
Restructuring costs	86	203
Annual cash EBITDA	42,696	7,553
Total long-term debt to annual cash EBITDA ratio	0.05:1	3.67:1

The total long-term debt to equity ratio is calculated using the total long-term debt balance, net of debt financing costs, divided by total equity, as follows:

As at December 31,	2021	2020
Total long-term debt, net of debt financing cost	2,265	27,715
Divide by: total equity	44,141	25,266
Total long-term debt to equity ratio	0.05:1	1.10:1

As discussed in note 9, the Company is subject to debt covenants on its revolving credit facility. The Company was in compliance with all covenants at December 31, 2021 and 2020.

There were no changes in the Company's approach to capital management during the year.

20. Other commitments

The following table represents minimum payments under seismic data services contracts:

	2022	2023	2024	2025	2026 and thereafter
Seismic data services	148	–	–	–	–

Obligations for seismic data services contracts include geophysical services such as data storage.

During the year ended December 31, 2021, \$168,000 (2020 – \$153,000) was recognized in selling, general and administrative expenses in respect of seismic data services.

21. Related-party transactions

The Company has a related-party relationship with its Board of Directors and with key management personnel.

(A) KEY MANAGEMENT PERSONNEL COMPENSATION

In addition to their salaries, the executive officers participate in the Company's short-term incentive cash-bonus plan and LTIP (refer to note 12).

Key management personnel compensation comprised:

Years ended December 31,	2021	2020
Fixed salary	822	724
Short-term employee benefits	66	59
Short-term incentive plan	—	124
LTIP	114	105
	1,002	1,012

(B) TRANSACTIONS WITH DIRECTORS

Directors also participate in the Company's LTIP (refer to note 12).

The remuneration of the Directors is as follows:

Years ended December 31,	2021	2020
Directors' fees	180	164
LTIP	67	40
	247	204

(C) INSTITUTIONAL SHAREHOLDER

EdgePoint Investment Group Inc. (EdgePoint), an institutional shareholder in the Company, had a position of 24.6 percent of the Company's total outstanding shares as of December 31, 2021.

EdgePoint was also the holder of the \$10.0 million subordinated debt that the Company utilized to acquire Seitel in January 2019. On June 29, 2021, the Company fully repaid the subordinated debt.

Under the terms of the agreement with EdgePoint, the subordinated debt accrued interest at a rate of 10 percent per annum, payable quarterly at the end of each quarter. For the year ended December 31, 2021, the interest expense debt was \$493,000 (December 31, 2020 – \$1.0 million). The Company's early repayment of the loan incurred a 7.5 percent prepayment premium, resulting in an additional \$750,000 payment to EdgePoint.

22. Subsequent event

On February 17, 2022, the Company declared a quarterly dividend of \$0.0125 per common share to be paid on March 21, 2022 to shareholders of record at the close of business on March 14, 2022.

Corporate Information

Pulse is a market leader in the acquisition, marketing and licensing of 2D and 3D seismic data to the western Canadian energy sector. Pulse owns the largest licensable seismic data library in Canada, currently consisting of approximately 65,310 net square kilometres of 3D seismic and 829,207 net kilometres of 2D seismic. The library extensively covers the Western Canada Sedimentary Basin where most of Canada's oil and natural gas exploration and development occur.

OFFICERS

Neal Coleman

President and CEO

Pamela Wicks

Vice President Finance and CFO

Trevor Meier

Vice President, Sales and Marketing

Catherine Samuel

Corporate Secretary

BOARD OF DIRECTORS

Robert Robotti^{(1) (2) (3)}

Chair

Paul Crilly^{(1) (3)}

Director

Dallas Droppo^{(1) (2) (3)}

Director

Grant Grimsrud^{(2) (4)}

Director

Melanie Westergaard^{(1) (4)}

Director

Neal Coleman⁽⁴⁾

Director

(1) Member of the Audit and Risk Committee

(2) Member of the Compensation Committee

(3) Member of the Corporate Governance and Nominating Committee

(4) Member of the Environment, Health and Safety Committee

BANKERS

The Toronto-Dominion Bank

Calgary, Alberta

REGISTRAR AND TRANSFER AGENT

Computershare Trust

Company of Canada

Calgary, Alberta

SOLICITORS

McCarthy Tétrault LLP

Calgary, Alberta

AUDITORS

MNP LLP

Calgary, Alberta

STOCK EXCHANGE LISTING

TSX: PSD

OTCQX: PLSDF

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