NEWS RELEASE

PERPETUAL ENERGY INC. REPORTS YEAR-END 2022 FINANCIAL AND OPERATING RESULTS AND RESERVES AND PROVIDES OPERATIONS UPDATE AND 2023 GUIDANCE

Calgary, Alberta – March 2, 2023 (TSX:PMT) – Perpetual Energy Inc. ("Perpetual", or the "Company") is pleased to release its fourth quarter and year-end 2022 financial and operating results and a summary of the Company's year-end 2022 reserves as reported by the independent engineering firm McDaniel and Associates Consultants Ltd. ("McDaniel"). A complete copy of Perpetual's audited consolidated financial statements, Management Discussion and Analysis ("MD&A") and Annual Information Forum for the year ended December 31, 2022 are available through the Company's website at www.perpetualenergyinc.com and SEDAR at www.sedar.com.

This news release contains certain specified financial measures that are not recognized by GAAP and used by management to evaluate the performance of the Company and its business. Since certain specified financial measures may not have a standardized meaning, securities regulations require that specified financial measures are clearly defined, qualified and, where required, reconciled with their nearest GAAP measure. See "Non GAAP and Other Financial Measures" in this news release and in the MD&A for further information on the definition, calculation and reconciliation of these measures. This news release also contains forward-looking information. See "Forward-Looking Information". Readers are also referred to the other information under the "Advisories" section in this news release for additional information.

FOURTH QUARTER AND YEAR-END 2022 HIGHLIGHTS

- Fourth quarter average production was 7,138 boe/d, up 12% from the comparative period of 2021 (Q4 2021 – 6,359 boe/d) and up 21% quarter over quarter (Q3 2022 – 5,882 boe/d) and within of the guidance to exceed 7,000 boe/d in the fourth quarter of 2022. Production for full year 2022 averaged 6,486 boe/d (20% heavy crude oil and NGL), an increase of 20% from 5,389 boe/d (24% heavy crude oil and NGL) in 2021. Production growth was driven by successful core area drilling programs. At East Edson, four (2.0 net) wells were drilled and placed on production in the fourth quarter of 2021 and six (3.0 net) Wilrich wells were drilled and placed on production during the second half of 2022. Due to high gathering line pressures, one (0.5 net) Notikewin well drilled, completed, and tied-in in 2022 was placed on production in the first quarter of 2023. At Mannville, two (2.0 net) horizontal multi-lateral heavy oil wells were drilled and placed on production late in the first quarter of 2022 and three (3.0 net) new horizontal, multi-lateral heavy oil wells were on production in the third quarter of 2022.

- Perpetual's exploration and development spending(1) in the fourth quarter of 2022 was minimal as both core areas completed a majority of the capital programs in the third quarter of 2022. Spending at East Edson in the fourth quarter was $1.3 million and included the remaining costs to test and place on production the seven (3.5 net) horizontal wells that were drilled during the third quarter of 2022. At Mannville in Eastern Alberta, the $1.3 million of capital recovered during the fourth quarter was related to the recovery of oil based mud ("OBM") load fluid from the three (3.0 net) wells drilled during the third quarter of 2022. Full year 2022 exploration and development capital spending totaled $31.9 million, up from $19.1 million in 2021. In 2022, the Company spent $1.6 million on Crown land purchases at East Edson with its 50% joint interest partner. In addition, close to $1.5 million was spent on asset retirement obligations ("ARO") during the year to abandon wells that had reached their end of life and execute surface lease reclamation activities, including $1.2 million of ARO spending in the fourth quarter. Four reclamation certificates were received in 2022.

- Oil and natural gas revenue for the fourth quarter of 2022 was $28.6 million, 33% higher than revenue in the comparative period of 2021 due to significantly higher reference prices for all products and the 12% increase in production. Fourth quarter revenue increased 25% from the third quarter of 2022 as production increased 21% and realized prices increased 3% on higher gas prices. Realized prices after gains on risk management contracts(1) decreased 5% relative to the third quarter. During the period there were $0.1 million of realized gains on risk management contracts, as compared to a realized gain of $2.1 million in third quarter. Revenue net of $4.6 million in realized losses on risk management contracts for full year 2022 was $105.1 million, close to double the $56.0 million of revenue in 2021 (net of $4.8 million of realized losses on risk management contracts) due to the combined effect of higher production and stronger realized commodity prices.

- Adjusted funds flow(1) in the fourth quarter of 2022 was $14.2 million ($0.22/share), up $5.6 million (65%) from the prior year period of $8.6 million ($0.13/share). Adjusted funds flow on a unit-of-production basis was $21.63/boe in the fourth quarter of 2022, a 47% increase from the prior year period of $14.67/boe, driven by the increase in commodity prices and higher production volumes. Adjusted funds flow recorded for 2022 was $48.5 million ($0.75 per share), up $31.7 million (189%) from $16.7 million ($0.27/share) in 2021.

- Net cash flows from operating activities in the fourth quarter of 2022 were $11.2 million, up $9.6 million (592%) from the comparative period of 2021 (Q4 2021 – $1.6 million). The increase was due to higher realized prices for all products and the 12% increase in production, partially offset by higher cash costs in all categories except general and administrative ("G&A") costs which were lower on higher recoveries related to overheads and costs recovered under the Management and Operating Services Agreement (the "MSA") with Rubellite. Net cash flows from operating activities for 2022 were $37.8 million (2021 - $12.8 million).

- Net income for the fourth quarter of 2022 was $9.3 million (Q4 2021 – $5.7 million). Net income in the fourth quarter of 2022 increased due to the same reasons that impacted adjusted fund flows and the $2.0 million unrealized gain on risk management contracts. Net income in 2022 was $44.4 million ($0.69/share) as compared to $81.1 million ($1.29/share) in 2021.

- Cash costs(1) were $9.1 million or $13.86/boe in the fourth quarter of 2022, up 8% (down 4% on a unit-of-production basis) from the comparative period (Q4 2021 – $8.4 million or $14.41/boe). The increase was due to the impact of higher production, partially offset by lower G&A costs due to higher recoveries. Cash costs were $34.4 million ($14.55/boe) in 2022, up 23% from 2021 ($2021 - $27.9 million; $14.19/boe) as inflationary pressures were somewhat offset by efficiency gains related to higher production levels across a largely fixed operating cost base.

- As at December 31, 2022, net debt(1) was $56.3 million, a decrease of 4% from December 31, 2021, as adjusted funds flow exceeded capital expenditures and payments related to the retained East Edson royalty obligations during 2022. As compared to the third quarter of 2022, net debt decreased $9.8 million (15%) as adjusted funds flow exceeded capital expenditures during the fourth quarter. The majority of Perpetual's 2022 capital spending at East Edson and Mannville was executed during the third quarter, with production additions gradually contributing to sales volumes by late September. By December 31, 2022, higher sales volumes combined with limited additional capital spending during the fourth quarter generated free funds flows(1) which was applied to reduce bank debt.

- Perpetual had available liquidity (see "Capital Management") at December 31, 2022 of $13.9 million, comprised of the $30.0 million borrowing limit of Perpetual's first lien credit facility ("Credit Facility Borrowing Limit") Credit Facility Borrowing Limit, less current borrowings and letters of credit of $14.9 million and $1.2 million, respectively.

(1) Non-GAAP measure, capital measure, Non-GAAP ratio or supplementary financial measure that does not have any standardized meaning under IFRS and therefore may not be comparable to similar measures presented by other entities. Refer to the section entitled "Non-GAAP and Other Financial Measures" contained within this news release.

YEAR-END 2022 RESERVES

Reserve additions offset production resulting in a nominal increase in total Company proved plus probable reserves year-over-year of 0.4 Mboe. Perpetual's proved plus probable reserves at year-end 2022 are 31.6 MMboe, comprised of 20% crude oil and NGL (2021 – 31.6 MMboe; 19% crude oil and NGL).

The quality of Perpetual's assets and positive momentum to drive operational and execution excellence in its core operating areas are demonstrated by the highlights below:

- Total proved reserves were 21.2 MMboe at year-end 2022, representing 67% of the Company's proved plus probable reserves (2021 – 71%).

- Proved plus probable producing reserves were 15.7 MMboe at December 31, 2022, representing 50% of total proved plus probable reserves (2021 – 15.2 MMboe; 48%).

- Total proved plus probable reserves in the Mannville area increased by 16% excluding production. Increases in reserves are largely due to the 2022 Mannville Heavy Oil multi-lateral drill program, gas recompletions, and economic factors.

- Perpetual's total exploration and development capital spending of $30.2 million (excluding $1.7 million of land and corporate capital), resulted in proved developed producing reserves additions of 2.46 MMboe, for finding and development costs(1) of $12.28/boe. Based on 2022 operating netbacks of $29.11/boe, the proved developed producing recycle ratio(1) is 2.4 times. Additions on a proved plus probable producing basis were 2.81 MMboe, for a finding and development cost(1) of $10.76/boe and a recycle ratio(1) of 2.7 times.

- Based on the three consultant average price (McDaniel, GLJ, Sproule) forecasts (the "Consultant Average Price Forecast") used by McDaniel, the net present value ("NPV") of Perpetual's total proved plus probable reserves (discounted at 10%) before income tax, was $302.0 million (2021 – $230.5 million). The increase related primarily to the material increase in the independent reserve evaluators' forecast for natural gas, crude oil and NGL prices at year-end 2022 as compared to the prior year.

- All abandonment, decommissioning and reclamation obligations are included in the reserve report, consistent with year-end 2021. All reserve well decommissioning obligations as well as the additional costs expected to be incurred to abandon and reclaim non-reserve wells, facilities and pipelines are included.

- Based on the Consultant Average Price Forecast, Perpetual's reserve-based net asset value ("NAV")(1) (discounted at 10%) at year-end 2022 is estimated at $250.1 million ($3.80 per share) as compared to $177.6 million ($2.79 per share) at year-end 2021.

(1) Non-GAAP measure and ratio. Refer to the section entitled "Non-GAAP and Other Financial Measures" contained within this news release for an explanation of composition.

2023 OUTLOOK

Perpetual's Board of Directors has approved exploration and development capital spending(1) of $25 - $32 million for full year 2023, including $8 to $10 million to be spent in the first quarter to drill two (1.0 net) wells at East Edson and related pipeline infrastructure. The remainder of the 2023 capital program is expected to be concentrated in the third quarter of 2023 and focused primarily at East Edson. The 2023 capital program is forecast to be fully funded from the Company's credit facility and adjusted funds flow(1)\.

Drilling commenced on a two well pad (1.0 net) at East Edson in late February, targeting development of the Wilrich formation. During the second half of 2023, Perpetual is planning to participate at its 50% working interest in an East Edson drilling program to drill, complete, equip and tie-in an additional four to six (2.0 to 3.0 net) horizontal wells in the Wilrich formation to fill the West Wolf gas plant in order to maximize natural gas and NGL sales through next winter.

At Mannville in Eastern Alberta, Perpetual continues to monitor performance of the horizontal, multi-lateral wells drilled in 2022 targeting heavy oil in the Sparky formation. Planning activities are underway to drill one follow-up multi-lateral well in the second half of 2023. Perpetual will also continue to focus on waterflood optimization and battery consolidation projects as well as shallow gas recompletions and abandonment and reclamation activities at the Mannville property.

Exploration and development capital spending for Perpetual for full year 2023 is expected to be \$25 to \$32 million, with \$8 to \$10 million to be spent in the first quarter. The table below summarizes anticipated capital spending and drilling activities for Perpetual for the first quarter and full year of 2023.

	Q1 2023 ($ millions)	**# of wells (gross/net)**	**2023 ($ millions)**	**# of wells (gross/net)**
West Central[1]	$8 - $10	2 / 1.0	$22 - $28	6 - 8 / 3.0 - 4.0
Eastern Alberta	$—	—	$3 - 4	1 / 1.0
Total[2]	**$8 - $10**	**2 / 1.0**	**$25 - $32**	**7 - 9 / 4.0 - 5.0**

(1) Oil-based mud load fluid is recycled for future drilling operations to the extent possible, or sold and credited back to drilling capital.
(2) Excludes abandonment and reclamation spending and acquisitions or land expenditures, if any.

Total Company average production is expected to be stable year over year at 6,400 to 6,600 boe/d (22% oil and NGL) in 2023. Cash costs[1] are expected to be similar to 2022 levels to average between \$16 and \$18 per boe for the calendar year.

2023 Guidance assumptions are as follows:

	2023 Guidance
Exploration and development capital expenditures[1] (*$ millions*)	$25 - $32
Cash costs[1] (*$/boe*)	$16 - $18
Royalties (% of revenue)[1]	16 - 18%
Average daily production (*boe/d*)	6,400 - 6,600
Production mix (*%*)	22% oil and NGL

(1) Non-GAAP measure, capital management measure, Non-GAAP ratio or supplementary financial measure that does not have any standardized meaning under IFRS and therefore may not be comparable to similar measures presented by other entities. Refer to the section entitled "Non-GAAP and Other Financial Measures" contained within this news release.

Perpetual will continue addressing asset retirement obligations ("ARO"), with total abandonment and reclamation expenditures of approximately \$1.5 to 2.0 million planned for 2023. This exceeds the Company's annual area-based closure Alberta Energy Regulatory ("AER") mandatory spending requirement of \$1.35 million.

(1) Non-GAAP measure and ratio. Refer to the section entitled "Non-GAAP and Other Financial Measures" contained within this MD&A for an explanation of composition.

Financial and Operating Highlights		**Three Months Ended December 31,**			**Twelve Months Ended December 31,**	
($Cdn thousands except volume and per share amounts)	**2022**	2021	Change	**2022**	2021	Change
Financial						
Oil and natural gas revenue	**28,579**	21,449	33 %	**109,687**	60,814	80 %
Net income (loss)	**9,264**	5,669	63 %	**28,503**	81,121	(65)%
Per share – basic(2)	**0.14**	0.09	56 %	**0.69**	1.29	(47)%
Per share – diluted(2)	**0.12**	0.08	50 %	**0.59**	1.16	(49)%
Cash flow from operating activities	**8,749**	1,624	439 %	**37,830**	12,815	195 %
Adjusted funds flow(1)	**14,207**	8,585	65 %	**48,471**	16,746	189 %
Per share(3)	**0.22**	0.13	66 %	**0.74**	0.27	174 %
Total assets	**218,273**	178,851	22 %	**218,273**	178,851	22 %
Revolving bank debt	**14,909**	2,487	499 %	**14,909**	2,487	499 %
Term loan, principal amount	**2,671**	2,671	— %	**2,671**	2,671	— %
Other liability (undiscounted)	**3,342**	1,387	141 %	**3,342**	1,387	141 %
Senior Notes, principal amount	**35,647**	36,582	(3)%	**35,647**	36,582	(3)%
Adjusted working capital (surplus) deficiency(1)	**(220)**	16,143	(101)%	**(220)**	16,143	(101)%
Net debt(1)	**56,349**	59,270	(5)%	**56,349**	59,270	(5)%
Capital expenditures						
Exploration and development(1)	**115**	7,558	(98)%	**31,909**	19,062	67 %
Net proceeds on dispositions	**—**	53,407	(100)%	**—**	49,549	(100)%
Net capital expenditures	**115**	60,965	(100)%	**31,909**	68,611	(53)%
Common shares outstanding (thousands)(4)						
End of period	**65,944**	63,567	4 %	**65,944**	63,567	4 %
Weighted average – basic	**65,883**	63,853	3 %	**64,448**	62,969	2 %
Weighted average – diluted	**75,090**	70,873	6 %	**74,798**	69,989	7 %
Operating						
Daily average production						
Conventional natural gas (*MMcf/d*)	**33.0**	31.5	5 %	**31.0**	24.6	26 %
Heavy crude oil (*bbl/d*)	**1,126**	714	58 %	**898**	963	(7)%
NGL (*bbl/d*)	**508**	395	29 %	**416**	331	26 %
Total (boe/d)(5)	**7,138**	6,359	12 %	**6,486**	5,389	20 %
Average realized prices						
Realized natural gas price (*$/Mcf*)(1)	**5.78**	4.80	20 %	**5.90**	3.15	87 %
Realized oil price (*$/bbl*)(1)	**71.14**	73.96	(4)%	**90.15**	57.36	57 %
Realized NGL price (*$/bbl*)(1)	**78.36**	73.44	7 %	**88.05**	63.24	39 %
Wells drilled – gross (net)						
Conventional natural gas	**-/-**	4.0/2.0		**7 (3.5)**	9.0/4.5	
Heavy crude oil	**-/-**	- (-)		**5 (5.0)**	5.0/4.0	
Total	**-/-**	4.0/2.0	(100)%	**12 (8.5)**	14.0/8.5	(14)%

(1) Non-GAAP measure, capital management measure, non-GAAP ratio or supplementary financial measure that does not have any standardized meaning under IFRS and therefore may not be comparable to similar measures presented by other entities. Refer to the section entitled "Non-GAAP and Other Financial Measures" contained within this news release.
(2) Based on weighted average basic common shares outstanding for the period.
(3) Adjusted funds flows divided by the Company's shares outstanding.
(4) Shares outstanding are net of shares held in trust (2022 – 1.3 million; 2021 – 0.5 million).
(5) Please refer to "Advisories – Volume conversions" below.

About Perpetual

Perpetual is an oil and natural gas exploration, production and marketing company headquartered in Calgary, Alberta. Perpetual owns a diversified asset portfolio, including liquids-rich conventional natural gas assets in the deep basin of West Central Alberta, heavy crude oil and shallow conventional natural gas in Eastern Alberta and undeveloped bitumen leases in Northern Alberta. Additional information on Perpetual can be accessed at www.sedar.com or from the Company's website at www.perpetualenergyinc.com.

The Toronto Stock Exchange has neither approved nor disapproved the information contained herein.

For additional information please contact:

Perpetual Energy Inc.
Suite 3200, 605 – 5 Avenue SW Calgary, Alberta, Canada T2P 3H5
Telephone: 403 269-4400 Fax: 403 269-4444 Email: info@perpetualenergyinc.com

Susan L. Riddell Rose	President and Chief Executive Officer
Ryan A. Shay	Vice President Finance and Chief Financial Officer

ADVISORIES

RESERVE DATA AND OTHER METRICS

There are numerous uncertainties inherent in estimating quantities of crude oil, natural gas and NGL reserves and the future cash flows attributed to such reserves. The reserve and associated cash flow information set forth above are estimates only. In general, estimates of economically recoverable crude oil, natural gas and NGL reserves and the future net cash flows therefrom are based upon a number of variable factors and assumptions, such as historical production from the properties, production rates, ultimate reserve recovery, timing and amount of capital expenditures, marketability of oil and natural gas, royalty rates, the assumed effects of regulation by governmental agencies and future operating costs, all of which may vary materially. For those reasons, estimates of the economically recoverable crude oil, NGL and natural gas reserves attributable to any particular group of properties, classification of such reserves based on risk of recovery and estimates of future net revenues associated with reserves prepared by different engineers, or by the same engineers at different times, may vary. The Company's actual production, revenues, taxes and development and operating expenditures with respect to its reserves will vary from estimates thereof and such variations could be material.

All evaluations and reviews of future net revenue are stated prior to any provisions for interest costs or general and administrative costs and after the deduction of estimated future capital expenditures for wells to which reserves have been assigned. The after-tax net present value of the Company's oil and gas properties reflects the tax burden on the properties on a stand-alone basis and utilizes the Company's tax pools. It does not consider the corporate tax situation, or tax planning. It does not provide an estimate of the after-tax value of the Company, which may be significantly different. The Company's financial statements and the MD&A should be consulted for information at the level of the Company.

The estimates of reserves and future net revenue for individual properties may not reflect the same confidence level as estimates of reserves and future net revenue for all properties, due to effects of aggregations. The estimated values of future net revenue disclosed in this news release do not represent fair market value. There is no assurance that the forecast prices and cost assumptions used in the reserve evaluations will be attained and variances could be material.

The reserve data provided in this news release presents only a portion of the disclosure required under NI 51-101. All of the required information will be contained in the Company's Annual Information Form for the year ended December 31, 2022, which will be filed on SEDAR (accessible at www.sedar.com) on or before March 31, 2023.

This news release contains metrics commonly used in the oil and natural gas industry, such as "finding and development" costs or "F&D" costs. These oil and gas metrics have been prepared by management and do not have standardized meanings or standard methods of calculation and therefore, such measures may not be comparable to similar measures used by other companies and should not be used to make comparisons. Such metrics have been included in this news release to provide readers with additional measures to evaluate Perpetual's performance; however, such measures are not reliable indicators of Perpetual's future performance and future performance may not compare to Perpetual's performance in previous periods and therefore, such metrics should not be unduly relied upon. Management uses these oil and gas metrics for its own performance measurements and to provide shareholders and investors with measures to compare Perpetual's operations over time. Readers are cautioned that the information provided by these metrics, or that can be derived from the metrics presented in this new release, should not be relied upon for investment or other purposes.

F&D costs are calculated on a per boe basis by dividing the aggregate of the change in future development capital ("FDC") from the prior year for the particular reserve category and the costs incurred on development and exploration activities in the year by the change in reserves from the prior year for the reserve category. F&D costs take into account reserve revisions during the year on a per boe basis. The aggregate of the F&D costs incurred in the financial year and changes during the year in FDC generally will not reflect total F&D costs related to reserves additions for that year.

VOLUME CONVERSIONS

Barrel of oil equivalent ("boe") may be misleading, particularly if used in isolation. In accordance with NI 51-101, a conversion ratio for conventional natural gas of 6 Mcf:1 bbl has been used, which is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. In addition, utilizing a conversion on a 6 Mcf:1 bbl basis may be misleading as an indicator of value as the value ratio between conventional natural gas and heavy crude oil, based on the current prices of natural gas and crude oil, differ significantly from the energy equivalency of 6 Mcf:1 bbl. A conversion ratio of 1 bbl of heavy crude oil to 1 bbl of NGL has also been used throughout this news release.

ABBREVIATIONS

The following abbreviations used in this news release have the meanings set forth below:

bbl	barrels
bbl/d	barrels per day
boe	barrels of oil equivalent
MMboe	million barrels of oil equivalent
Mcf	thousand cubic feet
MMcf	million cubic feet

OIL AND GAS RESERVE DEFINITIONS

Reserves: are estimated remaining quantities of crude oil and natural gas and related substances anticipated to be recoverable from known accumulations, as of a given date, based on the analysis of capital assumptions, and engineering data; the use of established technology; and specified economic conditions, which are generally accepted as being reasonable. Reserves are classified according to the degree of certainty associated with the estimates as follows.

Proved Reserves: are those reserves that can be estimated with a high degree of certainty to be recoverable. It is likely that the actual remaining quantities recovered will exceed the estimated proved reserves.

Probable Reserves: are those additional reserves that are less certain to be recovered than proved reserves. It is equally likely that the actual remaining quantities recovered will be greater or less than the estimated proved plus probable reserves.

INITIAL PRODUCTION RATES

Any references in this news release to initial production rates are useful in confirming the presence of hydrocarbons; however, such rates are not determinative of the rates at which such wells will continue production and decline thereafter and are not necessarily indicative of long-term performance or ultimate recovery. Readers are cautioned not to place reliance on such rates in calculating the aggregate production for the Company. Such rates are based on field estimates and may be based on limited data available at this time.

NON-GAAP AND OTHER FINANCIAL MEASURES

Throughout this news release and in other materials disclosed by the Company, Perpetual uses certain measures to analyze financial performance, financial position and cash flow. These non-GAAP and other financial measures do not have any standardized meaning prescribed under IFRS and therefore may not be comparable to similar measures presented by other entities. The non-GAAP and other financial measures should not be considered to be more meaningful than GAAP measures which are determined in accordance with IFRS, such as net income (loss), cash flow from operating activities, and cash flow from investing activities, as indicators of Perpetual's performance.

Non-GAAP Financial Measures:

Capital expenditures or capital spending: Perpetual uses capital expenditures or capital spending related to exploration and development to measure its capital investments compared to the Company's annual capital budgeted expenditures. Perpetual's capital budget excludes acquisition and disposition activities.

The most directly comparable GAAP measure for capital expenditures or capital spending is cash flow used in investing activities. A summary of the reconciliation of cash flow used in investing activities to capital expenditures or capital spending, is set forth below:

	Three months ended December 31,		Twelve months ended December 31,	
	2022	2021	**2022**	2021
Net cash flows used in investing activities	**17,239**	(49,217)	**40,941**	(43,725)
Acquisitions	**—**	(700)	**—**	(1,325)
Net proceeds on dispositions, net of cash disposed	**—**	53,407	**—**	49,549
Purchase of marketable securities	**(2)**	—	**(39)**	—
Change in non-cash working capital	**(17,122)**	4,068	**(8,993)**	14,563
Capital expenditures	**115**	7,558	**31,909**	19,062

Adjusted funds flow: Adjusted funds flow is calculated based on cash flows from (used in) operating activities, excluding changes in non-cash working capital and expenditures on decommissioning obligations since Perpetual believes the timing of collection, payment or incurrence of these items is variable. Expenditures on decommissioning obligations may vary from period to period depending on capital programs and the maturity of the Company's operating areas. Expenditures on decommissioning obligations are managed through the capital budgeting process which considers available adjusted funds flow and regulatory requirements. The Company has added back non-cash oil and natural gas revenue in-kind, equal to retained East Edson royalty obligation payments taken in-kind, to present the equivalent amount of cash revenue generated. Management uses adjusted funds flow and adjusted funds flow per boe as key measures to assess the ability of the Company to generate the funds necessary to finance capital expenditures, expenditures on decommissioning obligations, and meet its financial obligations.

Adjusted funds flow is not intended to represent net cash flows from (used in) operating activities calculated in accordance with IFRS.

The following table reconciles net cash flows from (used in) operating activities as reported in the Company's consolidated statements of cash flows, to adjusted funds flow:

	Three months ended December 31,		Twelve months ended December 31,	
(*$ thousands, except per share and per boe amounts*)	**2022**	2021	**2022**	2021
Net cash flows from operating activities	**11,238**	1,624	**37,830**	12,815
Change in non-cash working capital	**1,925**	4,197	**9,442**	(3,406)
Decommissioning obligations settled (cash)	**1,044**	1,382	**1,199**	1,759
Oil and natural gas revenue in-kind	**—**	1,382	**—**	4,995
Payment of restructuring costs	**—**	—	**—**	583
Adjusted funds flow	**14,207**	8,585	**48,471**	16,746
Adjusted funds flow per share	**0.22**	0.13	**0.75**	0.27
Adjusted funds flow per boe	**21.63**	14.67	**20.48**	8.51

Free funds flow: Free funds flow is an important measure that informs efficiency of capital spent and liquidity. Free funds flow is calculated as adjusted funds flow generated during the period less capital expenditures. Adjusted funds flow and capital expenditures are non-GAAP financial measures which have been reconciled to its most directly comparable GAAP measure previously in this document. By removing the impact of current period capital expenditures from adjusted funds flow, Perpetual monitors its free funds flow to inform decisions such as capital allocation and debt repayment.

The following table shows the calculation of the removal of capital expenditures from adjusted funds flows:

	Three months ended December 31,		Twelve months ended December 31,	
(*$ thousands, except per share and per boe amounts*)	**2022**	2021	**2022**	2021
Adjusted funds flow	**14,207**	8,585	**48,471**	16,746
Capital Expenditures	**(115)**	(7,558)	**(31,909)**	(19,062)
Free funds flow	**14,092**	1,027	**16,562**	(2,316)

Cash costs: Cash costs are controllable costs comprised of production and operating, transportation, general and administrative, and cash finance expense as detailed below. Cash costs per boe is calculated by dividing cash costs by total production sold in the period. Management believes that cash costs assist management and investors in assessing Perpetual's efficiency and overall cost structure.

	Three months ended December 31,		Twelve months ended December 31,	
(*$ thousands, except per boe amounts*)	**2022**	2021	**2022**	2021
Production and operating	**3,828**	2,862	**16,107**	12,859
Transportation	**1,223**	871	**3,872**	2,993
General and administrative	**2,855**	3,657	**9,911**	10,757
Cash finance expense	**1,194**	1,039	**4,547**	1,309
Cash costs	**9,101**	8,429	**34,437**	27,919
Cash costs per boe	**13.86**	14.41	**14.55**	14.19

Capital Management Measures

Perpetual uses net debt, adjusted working capital, and available liquidity as important indicators of capital resources, management and liquidity.

Net Debt: Perpetual uses net debt as an alternative measure of outstanding debt. Management considers net debt as an important measure in assessing the liquidity of the Company. Net debt is used by management to assess the Company's overall debt position and borrowing capacity. Net debt is not a standardized measure and therefore may not be comparable to similar measures presented by other entities.

The following table details the composition of net debt:

	As of September 30, 2022	As of December 31, 2021
Cash and cash equivalents	**—**	1,090
Accounts and accrued receivable	**15,804**	11,671
Prepaid expenses and deposits	**1,564**	910
Marketable securities	**1,814**	2,409
Accounts payable and accrued liabilities	**(18,962)**	(32,223)
Adjusted working capital surplus (deficiency)	**220**	(16,143)
Bank indebtedness	**(14,909)**	(2,487)
Term loan (principal)	**(2,671)**	(2,671)
Other liability (undiscounted amount)	**(3,342)**	(1,387)
Senior notes (principal)	**(35,647)**	(36,582)
Net debt	**(56,349)**	(59,270)

Available Liquidity: Available Liquidity is defined as Perpetual's Credit Facility Borrowing Limit, less current borrowings and letters of credit issued under the Credit Facility. Management uses available liquidity to assess the ability of the Company to finance capital expenditures and expenditures on decommissioning obligations, and to meet its financial obligations.

Net Asset Value ("NAV"): Total proved plus probable reserves as per the McDaniel reserve report as at December 31, 2022, plus independently verified third party valuation of undeveloped lands, less net debt. This measure is used to show the net asset value of the Company at a point in time under which the reserves are produced at forecast future prices and costs.

Non-GAAP Financial Ratios

Perpetual calculates certain non-GAAP measures per boe as the measure divided by weighted average daily production. Management believes that per boe ratios are a key industry performance measure of operational efficiency and one that provides investors with information that is also commonly presented by other crude oil and natural gas producers. Perpetual also calculates certain non-GAAP measures per share as the measure divided by outstanding common shares.

Adjusted funds flow per share: Adjusted funds flow ratios are calculated on a per share as the measure divided by basic shares outstanding.

Adjusted funds flow per boe: Adjusted funds flow per boe is calculated as adjusted funds flow divided by total production sold in the period.

NAV per share: NAV per share is calculated by dividing total NAV by the number of shares outstanding at December 31, 2022, net of shares held in trust.

Finding and development costs (F&D costs): F&D costs are calculated as the sum of capital expenditures and the FDC required to bring the reserves on production, divided by the change in the reserves in the applicable category.

Recycle ratio: Recycle ratio is dividing the operating netback per boe by F&D costs.

Supplementary Financial Measures

"Average realized price" is comprised of total commodity sales from production, as determined in accordance with IFRS, divided by the Company's total sales production on a boe basis.

"Realized oil price" is comprised of oil commodity sales from production, as determined in accordance with IFRS, divided by the Company's oil sales production.

"Realized natural gas price" is comprised of natural gas commodity sales from production, as determined in accordance with IFRS, divided by the Company's natural gas sales production.

"Realized NGL price" is comprised of NGL commodity sales from production, as determined in accordance with IFRS, divided by the Company's NGL sales production.

"Realized gain (loss) on natural gas contracts per mcf" is comprised of the realized gain or loss on natural gas contracts, as determined in accordance with IFRS, divided by the Company's total natural gas sales production.

"Realized gain (loss) on oil contracts per boe" is comprised of the realized gain or loss on oil contracts, as determined in accordance with IFRS, divided by the Company's total oil sales production.

"Realized gain (loss) on risk management contracts per boe" is comprised of the realized gain or loss on risk management contracts, as determined in accordance with IFRS, divided by the Company's total sales production.

Other per boe measures are calculated using the financial measure, as determined in accordance with IFRS, divided by the Company's total sales production.

FORWARD-LOOKING INFORMATION

Certain information in this MD&A including management's assessment of future plans and operations, and including the information contained under the heading "2023 Outlook" may constitute forward-looking information or statements (together "forward-looking information") under applicable securities laws. The forward-looking information includes, without limitation, statements with respect to: forecast production and exploration and development capital expenditures for 2023 and the expectation that such expenditures will be funded from adjusted funds flow; drilling activities for 2023 including the number of gross and net wells to be drilled; cash costs estimates; projected abandonment and reclamation expenditures and the funding thereof; expectations as to drilling activity plans in various areas and the benefits to be derived from such drilling including the production growth and expectations respecting Perpetual's future exploration, development and drilling activities; and Perpetual's business plan.

Forward-looking information is based on current expectations, estimates and projections that involve a number of known and unknown risks, which could cause actual results to vary and in some instances to differ materially from those anticipated by Perpetual and described in the forward-looking information contained in this MD&A. In particular and without limitation of the foregoing, material factors or assumptions on which the forward-looking information in this MD&A is based include: forecast commodity prices and other pricing assumptions; forecast production volumes based on business and market conditions; foreign exchange and interest rates; near-term pricing and continued volatility of the market including inflationary pressures; accounting estimates and judgments; future use and development of technology and associated expected future results; the ability to obtain regulatory approvals; the successful and timely implementation of capital projects; ability to generate sufficient cash flow to meet current and future obligations; the ability of Perpetual to obtain and retain qualified staff and equipment in a timely and cost-efficient manner, as applicable; the retention of key properties; forecast inflation, supply chain access and other assumptions inherent in Perpetual's current guidance and estimates; the continuance of existing tax, royalty, and regulatory regimes; the accuracy of the estimates of reserves volumes; ability to access and implement technology necessary to efficiently and effectively operate assets; and the ongoing and future impact of the coronavirus and the war in Ukraine and related sanctions on commodity prices and the global economy, among others.

Undue reliance should not be placed on forward-looking information, which is not a guarantee of performance and is subject to a number of risks or uncertainties, including without limitation those described herein and under "Risk Factors" in Perpetual's Annual Information Form and MD&A for the year ended December 31, 2022 and in other reports on file with Canadian securities regulatory authorities which may be accessed through the SEDAR website (www.sedar.com) and at Perpetual's website (www.perpetualenergyinc.com). Readers are cautioned that the foregoing list of risk factors is not exhaustive. Forward-looking information is based on the estimates and opinions of Perpetual's management at the time the information is released, and Perpetual disclaims any intent or obligation to update publicly any such forward-looking information, whether as a result of new information, future events or otherwise, other than as expressly required by applicable securities law.