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## INDEPENDENT PRACTITIONER’S LIMITED ASSURANCE REPORT

To the management of Pembina Pipeline Corporation (“the Entity”)

We have undertaken a limited assurance engagement on certain key performance indicators of the Entity, included in the accompanying Selected Environmental Indicators Report (the “Report”) and as described below, for the years ended December 31, 2022 and December 31, 2019.

### Subject Matter Information and Applicable Criteria

The scope of our limited assurance engagement, as agreed with management, comprises the following performance information (collectively the ‘subject matter information’):

Key Performance Indicator	Units	Timeframe	Criteria
<ul style="list-style-type: none"> <li>▪ Scope 1 Greenhouse Gas (GHG) Emissions</li> <li>▪ Scope 2 GHG Emissions</li> </ul>	tCO <sub>2e</sub>	January 1 - December 31, 2019 and January 1 - December 31, 2022	The World Resources Institute/ World Business Council for Sustainable Development GHG Protocol A Corporate Accounting and Reporting Standard (‘GHG Protocol’) & GHG Protocol Scope 2 Guidance ( <i>Supplement to the GHG Protocol</i> )
<ul style="list-style-type: none"> <li>▪ Total Scope 1 &amp; 2 GHG Emissions Intensity</li> </ul>	tCO <sub>2e</sub> / BOE*	January 1 - December 31, 2019 and January 1 - December 31, 2022	GHG Protocol & Internally developed criteria
<ul style="list-style-type: none"> <li>▪ Physical Throughput</li> </ul>	BOE*	January 1 - December 31, 2019 and January 1 - December 31, 2022	Internally developed criteria

\* Barrel of oil equivalent.

### Management’s Responsibility

Management is responsible for the preparation and presentation of the subject matter information in accordance with the applicable criteria.

There are no mandatory requirements for the preparation, publication or review of GHG metrics. As such, the Entity applies the applicable criteria, including its own internal reporting guidelines and definitions for GHG reporting, which can be found in Appendix 1 and 2 of the Report.

Management is responsible for determining the appropriateness of the use of the applicable criteria.

Management is also responsible for determining the Entity’s objectives in respect of sustainability performance and reporting, including the identification of stakeholders and material issues.

Management is also responsible for such internal control as management determines necessary to enable the preparation and presentation of the subject matter information that is free from material misstatement, whether due to fraud or error.



## Practitioner's Responsibilities

Our responsibility is to express a limited assurance conclusion based on evidence we have obtained. We conducted our limited assurance engagement in accordance with International Auditing and Assurance Standard on Assurance Engagements ('ISAE') 3410, *Assurance Engagements on Greenhouse Gas Statements*. This standard requires that we plan and perform our engagement to obtain limited assurance about whether based on the procedures performed and evidence obtained, any matter(s) has come to our attention to cause us to believe that the subject matter information is materially misstated.

The procedures performed in a limited assurance engagement vary in nature and timing from and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Accordingly, it is not a guarantee that a limited assurance engagement conducted in accordance with this standard will always detect a matter that causes the practitioner to believe that the subject matter information is materially misstated.

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 decisions of users of our report.

The nature, timing and extent of procedures performed depends on our professional judgment, including an assessment of the risks of material misstatement, whether due to fraud or error, and involves obtaining evidence about the subject matter information.

Our engagement included: assessing the appropriateness of the subject matter, the suitability of the criteria used by the Entity in preparing the subject matter information in the circumstances of the engagement and evaluating the appropriateness of the methods, policies and procedures, and models used in the preparation of subject matter information and the reasonableness of estimates made by the Entity.

Our engagement also included, amongst others, the following procedures:

- Inquiries with relevant staff at the corporate and facility level to understand the data collection and reporting processes for the subject matter information;
- Where relevant, performing walkthroughs of data collection and reporting processes for the subject matter information;
- Comparing a sample of the reported data for the subject matter information to underlying data sources;
- Inquiries of management regarding key assumptions and, where relevant, the re-performance of key calculations;
- Completion of a site visit to the Aux Sable facility, including a site walkthrough of data collection and reporting processes, interviews with senior management and relevant staff and site inspection and tour; and
- Reviewing the presentation of the subject matter information in the Report to determine whether the information presented is consistent with our overall knowledge of, and experience with the sustainability performance of the Entity.

The engagement was conducted by a multidisciplinary team which included professionals with suitable skills and experience in both assurance and in the applicable subject matter, including environmental, social and governance aspects.



## **Practitioner's Independence and Quality Management**

We have complied with the relevant rules of professional conduct/code of ethics applicable to the practice of public accounting and related to assurance engagements, issued by various professional accounting bodies, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

The firm applies Canadian Standard on Quality Control 1, *Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance Engagements* and, accordingly, maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

## **Significant Inherent Limitations**

Historical non-financial information, such as that contained in the Report, is subject to more inherent limitations than historical financial information, given the qualitative characteristics of the underlying subject matter and methods used for determining this information. The absence of a significant body of established practice on which to draw allows for the selection of different but acceptable evaluation techniques, which can result in materially different measurements and can impact comparability. The nature and methods used to determine such information, as described in the applicable criteria, may change over time, and it is important to read the Entity's GHG reporting methodology available in Appendix 1 and 2 of the Report.

## **Conclusion**

Our conclusion has been formed on the basis of, and is subject to, the matters outlined in this report. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion. Based on the procedures performed and evidence obtained, no matters have come to our attention to cause us to believe that the Entity's subject matter information, as described above and disclosed in the Report, for the years ended December 31, 2022 and December 31, 2019, is not prepared and presented, in all material respects, in accordance with the applicable criteria.

A handwritten signature in black ink that reads 'KPMG LLP'. The signature is written in a cursive, slightly slanted style. A horizontal line is drawn underneath the signature, extending from the left side of the 'K' towards the right.

## **Chartered Professional Accountants**

June 19, 2023  
Calgary, Canada

## Selected Environmental Indicators Report

Years ended December 31, 2022 and December 31, 2019

As part of Pembina Pipeline Corporation’s (“Pembina”) continued commitment to refine its reporting methodology, Pembina engaged KPMG LLP (“KPMG”) to undertake a limited assurance engagement on Pembina’s reported 2019 and 2022 greenhouse gas (“GHG”) emissions and emissions intensity, the latter using physical throughput as the denominator. The following GHG data are included in the assurance scope. Pembina intends to use this GHG data in future Environmental, Social, and Governance (“ESG”) reporting.

Pembina has calculated its GHG emissions in accordance with the requirements of the World Resource Institute/World Business Council for Sustainable Development Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard Revised Edition (the “GHG Protocol”) and in accordance with internally developed criteria included in Appendix 1, which form an integral part of this report.

Subject Matter	Key Performance Indicator	Units (metric tonnes CO <sub>2</sub> e)	
		2022	2019
Climate Change	Scope 1 GHG Emissions*	2,834,288	2,588,569
	Scope 2 GHG Emissions*	1,305,415	1,430,608

\*Emissions data is collected for CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and HFCs in metric tonnes and converted to tonnes of CO<sub>2</sub> equivalent based on global warming potentials issued by the United Nations Intergovernmental Panel on Climate Change (IPCC) in their Fourth Assessment Report (AR4).

Pembina measures and records physical throughput volumes for each of its assets in accordance with internally developed criteria included in Appendix 2, which form an integral part of this report.

Subject Matter	Key Performance Indicator	Units (BOE)	
		2022	2019
Climate Change	Physical Throughput	1,091,715,865	1,047,078,923

The assured GHG emissions and physical throughput shown in the above tables are used to calculate Pembina’s GHG emissions intensities for both 2019 and 2022.

Subject Matter	Key Performance Indicator	Units (metric tonnes CO <sub>2</sub> e/BOE)	
		2022	2019
Climate Change	Total Scope 1 and 2 GHG Emissions Intensity	0.00379	0.00384



## Appendix 1

### Greenhouse gas (GHG) reporting evaluation criteria

- Pembina has selected the Operational Control approach to define its organizational boundaries for GHG reporting and includes all material sources and sinks associated with facilities and operations (both corporate and pipeline) that are in direct operational control by Pembina and Pembina subsidiaries.
- Pembina reports Scope 1 (direct emissions from operations such as stationary fuel combustion, mobile combustion, fugitive, flaring, vented emissions and formation CO<sub>2</sub>) and Scope 2 (indirect emissions from purchased and imported electricity and heat consumption).
- Scope 1 emissions are calculated using operational activity data (e.g., fuel consumption data from meters, measured survey data and engineered estimates) multiplied by an operationally derived or the applicable regulated default emission factor. The regulated facilities were verified by third party verifiers and confirmed applicable regulated default emission factors were used.
- Energy consumption used to quantify the Scope 1 emissions includes all types of fuels consumed by Pembina operations, including natural gas, diesel, gasoline, propane and jet fuel. Fuel consumption is based on a combination of invoiced amounts provided by third party suppliers, meter readings and system generated reports.
- Scope 2 emissions are calculated using location-based emission factors from Environment and Climate Change Canada's most recent National Inventory Report ("NIR") for Canadian facilities, U.S. Environmental Protection Agency's Emissions & Generation Resource Integrated Database ("eGRID") for US facilities and Alberta Environment and Protected Areas Technology, Innovation and Emissions Reduction ("TIER") benchmark emission intensity factor for imported heat. Pembina continues to transition to a market-based methodology and will apply this approach when suitable data is available.
- Purchased electricity is included within Scope 2 emissions. Electricity and imported heat consumption are based on invoiced amounts provided by third party suppliers, with the exception of certain assets, which were estimated.
- Pembina has selected 2019 as its base year. Pembina's base year recalculation policy is to recalculate base year emissions for any significant structural changes as a result of major acquisitions, divestments and mergers and meet a significance threshold of  $\pm 15\%$  of Base Year Scope 1+2 emissions. As such, as a result of the acquisition of Energy Transfer Canada ("ETC") assets in 2022, Pembina restated and re-assured base year emissions in line with its recalculation policy.
- Immaterial sources of emissions such as physical and chemical processing emissions, construction activities and non-routine events such as emissions from spills are excluded from reported emissions.



- Small emissions associated with lease automatic custody transfer equipment (“LACTs”), risers, valves sites, meter stations and communications towers have been accounted for by adding an additional 0.5% to the total corporate Scope 1 emissions. Based on previous engineering studies, this amount is conservative.



## Appendix 2

### Physical throughput reporting evaluation criteria

- Consistent with the approach applied to GHG emissions reporting in Appendix 1, Pembina has selected the Operational Control approach to define its organizational boundaries.
- Physical throughput volumes are based on measurement at the facility inlet or pipeline receipt point and are reported in throughput barrels of oil equivalent, “BOE”.
- Natural gas products are measured in dekatherms (“DTh”) and are converted to cubic feet using measured, actual gas heating values.
- Pembina follows the Alberta Energy Regulator (“AER”) conversion factor to convert from one thousand cubic meters (“e<sup>3</sup>m<sup>3</sup>”) to one thousand cubic feet (“MCF”).
- All products originally measured in, or already converted to MCF are converted to BOE using a 6:1 ratio.
- Pembina’s physical throughput volumes are the aggregated total physical volumes moving through Pembina’s assets in a specified reporting period, excluding volumes from assets that are dependent upon other Pembina assets.
- Physical throughput volumes exclude volumes from assets that are dependent on other Pembina assets. Asset dependence indicates the asset would likely not operate independently without another one or more of Pembina’s assets. In these cases, the volumes of the dependent asset are not counted. As a result, several receipt points, bypass volumes, and all marketing sales volumes are excluded given their dependency on Pembina assets.
- Storage volumes and terminal (truck and rail) volumes are also excluded given their interdependency on Pembina assets, as well as low correlation to emissions even in periods of high turnover and transport.
- Since Pembina has limited insight into certain joint ventures, proxies are used when necessary and appropriate. The only proxy currently used is Alliance system volumes to represent Aux Sable volumes (which is a Pembina operated asset, while Alliance is not). Since Aux Sable receives, extracts, and markets the volumes as reported under the Alliance pipeline, this is a reasonable proxy. For emissions purposes, Aux Sable volumes are included in Pembina’s total physical throughput using Alliance volumes at their delivery point as a proxy (1:1).
- Pembina reports revenue throughput volumes in its MD&A. These volumes differ from physical throughput volumes primarily due to take-or-pay (“TOP”) shortfall volumes being included in revenue throughput volumes. TOP shortfall volumes earn revenue due to contractual obligations,



but there is no physical molecule flow related to this revenue. Therefore, there is no molecule to include in the physical throughput volumes.