

# Welcome to your CDP Climate Change Questionnaire 2020

## C0. Introduction

### C0.1

#### **(C0.1) Give a general description and introduction to your organization.**

Baytex Energy is an oil and gas corporation based in Calgary, Alberta, Canada. We are engaged in the acquisition, development and production of crude oil and natural gas in the Western Canadian Sedimentary Basin and in the Eagle Ford in the United States. Approximately 82% of our production is weighted toward crude oil and natural gas liquids. Our common shares trade on the Toronto Stock Exchange and the New York Stock Exchange under the symbol BTE.

Our crude oil and natural gas operations are organized into three business units: 1) United States, which includes the Eagle Ford in Texas (non-operated), 2) Light Oil, which includes the Duvernay in Alberta and the Viking in Saskatchewan and 3) Heavy Oil, which includes Peace River and Lloydminster in Alberta and Saskatchewan. These business units have a portfolio of mineral leases, with operated and/or non-operated properties and development prospects. Within the business units, Baytex has established geographically-organized teams with a full complement of technical professionals (engineers, geoscientists and landmen). This comprehensive technical approach is intended to result in thorough identification and evaluation of exploration, development and acquisition opportunities and cost-effective execution of those opportunities. We endeavour to add value through internal property development and selective acquisitions.

We believe that by acting as a responsible company in all aspects of our operations, not just financial, we create long-term sustainable value for all stakeholders. We focus on employee opportunities for personal growth, an improved quality of life in communities where we operate, business opportunities for Aboriginal groups, and an attractive return on investment for shareholders. More broadly, society benefits from environmentally-responsible and sustainable development that produces reliable energy at a reasonable cost.

Developing oil and gas resources requires long-term commitment and cooperation. Openly sharing the company's ESG performance with our stakeholders is important to achieving continued long-term success in resource development. In the summer of 2020, we released the company's 2019 sustainability metrics, and in the fall of 2021 we plan to publish our fifth Corporate Sustainability Report.

## C0.2

**(C0.2) State the start and end date of the year for which you are reporting data.**

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	January 1, 2019	December 31, 2019	No

## C0.3

**(C0.3) Select the countries/areas for which you will be supplying data.**

Canada

## C0.4

**(C0.4) Select the currency used for all financial information disclosed throughout your response.**

CAD

## C0.5

**(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.**

Operational control

## C-OG0.7

**(C-OG0.7) Which part of the oil and gas value chain and other areas does your organization operate in?**

Row 1

Oil and gas value chain

Upstream

Other divisions

## C1. Governance

### C1.1

**(C1.1) Is there board-level oversight of climate-related issues within your organization?**

Yes

## C1.1a

**(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.**

Position of individual(s)	Please explain
Director on board	Baytex's Reserves and Sustainability Committee is currently comprised of three members of the Board. One of the directors is appointed and acts as chair of this committee. In addition, the three member Human Resources and Compensation Committee of the Board have a role in adjudicating the Company's performance as against the short-term incentive plan scorecard which includes a GHG emissions reduction target.

## C1.1b

**(C1.1b) Provide further details on the board's oversight of climate-related issues.**

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	<ul style="list-style-type: none"> <li>Reviewing and guiding strategy</li> <li>Reviewing and guiding major plans of action</li> <li>Reviewing and guiding risk management policies</li> <li>Reviewing and guiding annual budgets</li> <li>Reviewing and guiding business plans</li> <li>Setting performance objectives</li> <li>Monitoring implementation and performance of objectives</li> <li>Overseeing major capital expenditures, acquisitions and divestitures</li> </ul>	<p>The Reserves and Sustainability Committee has specific responsibility for overseeing health, safety, environment, climate and other sustainability matters. These matters form part of our annual budget and performance objectives, which are monitored and reported on regularly. We have incorporated specific safety and GHG emissions targets into our short-term incentive plan scorecard. The Board has oversight for the activities of the Reserves and Sustainability Committee and the Human Resources and Compensation Committee.</p> <p>In relation to climate change and the reduction of the company's carbon footprint, the committee provides oversight of policies and standards, reviews performance and discusses future opportunities. This committee meets quarterly and reviews benchmarking, performance and initiatives that are put in place to manage climate related risks and reports to the Board as important matters arise.</p> <p>In alignment with the Task Force on Climate-related</p>

	<p>Monitoring and overseeing progress against goals and targets for addressing climate-related issues</p>	<p>Financial Disclosures (TCFD), we have identified two types of climate-related risks: 1) physical risks, which are risks associated with physical impacts from climate change, and 2) transition risks, which are regulatory and business risks related to the transition to a lower-carbon economy.</p> <p>Management presents to the relevant Board committees and the full board on these topics and the relevant committees and the full board provide guidance, approve budgets for the plans to be implemented and review and approve the company's disclosures of the major risks faced by the company which include climate related issues.</p>
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## C1.2

**(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.**

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	Quarterly
Other C-Suite Officer, please specify Vice President, Light Oil	Both assessing and managing climate-related risks and opportunities	As important matters arise
Environment/ Sustainability manager	Both assessing and managing climate-related risks and opportunities	As important matters arise
Other committee, please specify Reserves and Sustainability Committee	Both assessing and managing climate-related risks and opportunities	Quarterly
Other, please specify Environmental Sustainability Team	Both assessing and managing climate-related risks and opportunities	As important matters arise
Other C-Suite Officer, please specify Vice President, Heavy Oil	Both assessing and managing climate-related risks and opportunities	As important matters arise

Safety, Health, Environment and Quality committee	Both assessing and managing climate-related risks and opportunities	Quarterly
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## C1.2a

**(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).**

Efforts are supported by two committees within the Corporation: the Health, Safety and Environment Committee and the Environmental Sustainability Team.

Baytex's Health, Safety and Environment Committee is comprised of the Chief Executive Officer, General Counsel and Corporate Secretary, the Operations Vice Presidents, the Health and Safety Manager and the Environment and Regulatory Manager. The committee reports to the Reserves and Sustainability Committee and the Board on issues related to health, safety and environment and broadened its responsibility in 2019 to the oversight and monitoring of climate and other sustainability matters. In relation to climate change and the reduction of the company's carbon footprint, the committee provides oversight of policies and standards, reviews performance and discusses future opportunities. This committee meets quarterly and reviews benchmarking, performance and initiatives that are put in place to manage climate related risks and reports to the Board as important matters arise.

Baytex's Environmental Sustainability Team (EST) is a cross-functional team of staff and Managers that are responsible for reporting climate-related issues and initiatives to the Vice President, Light Oil and Vice President, Heavy Oil. The EST is responsible to monitor, implement and manage systems required to support these climate-related initiatives.

## C1.3

**(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?**

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	<p>Staff and executives are evaluated based on the achievement of corporate climate-related objectives and goals, which includes regulatory compliance and the meeting of emissions reduction targets. These objectives are endorsed by the Board and reported externally through annual reports and our Sustainability Report.</p> <p>The Corporation's short-term incentive plan scorecard is used to determine annual bonus levels for officers and employees of the Corporation. It includes as one measure the Corporation's GHG</p>

		emission reduction target. If the Corporation does not meet this target, annual bonuses will be lower.
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### C1.3a

**(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).**

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Corporate executive team	Monetary reward		The executive team is evaluated based on the achievement of corporate objectives and goals, which includes regulatory compliance. These objectives are endorsed by the Board and reported externally through annual reports and our Sustainability Report.
All employees	Monetary reward		In all jurisdictions where Baytex operates, there are emission regulations and/or targets. Our annual performance assessment for all employees incorporates compliance or adherence to these regulations and targets. In 2019, Baytex set its first ever emissions intensity reduction target. Emissions intensity is a key performance metric in the organization.

## C2. Risks and opportunities

### C2.1

**(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?**

Yes

### C2.1a

**(C2.1a) How does your organization define short-, medium- and long-term time horizons?**

	From (years)	To (years)	Comment
Short-term	1	3	Aligns with regular business practices.
Medium-term	3	10	Aligns with regular business practices.
Long-term	10	20	Aligns with regular business practices.

### C2.1b

**(C2.1b) How does your organization define substantive financial or strategic impact on your business?**

Risks that could have a material future adverse effect on the operations, financial condition, the value and amount of our reserves and future sustainability of the business are considered substantive by the company.

## C2.2

**(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.**

### Value chain stage(s) covered

Direct operations  
Upstream  
Downstream

### Risk management process

Integrated into multi-disciplinary company-wide risk management process

### Frequency of assessment

Annually

### Time horizon(s) covered

Short-term  
Medium-term  
Long-term

### Description of process

Baytex has monthly, quarterly and annual long range planning review and reporting processes in place as well as ongoing risk assessments within business practices. When climate-related risks directly impact a sector of the company or a business procedure, a specific risk assessment and mitigation planning process will be undertaken. For example, emerging GHG regulations and changes to existing regulations are assessed by the Environmental Sustainability Team to understand the current and future impact on the business. Findings and recommendations are communicated up to the executive management team and the Reserves and Sustainability Committee.

## C2.2a

**(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?**

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Our risk assessments take into account the current legislative requirements for methane and emission requirements. Our company

		philosophy is to always meet or exceed regulatory compliance requirements.
Emerging regulation	Relevant, sometimes included	Regular review of emerging GHG regulations and participation in government / industry working groups to: 1) provide input into the regulations as they are being developed and 2) better understand the future impact the regulations will have on the company.
Technology	Relevant, sometimes included	The impact of technology on lowering GHG emissions and helping to reduce the intensity of emissions is assessed. Technology risk can be viewed in a number of ways, from the risk of not utilizing appropriate technology to mitigate emissions through to the risk of not having appropriate emissions technology available (i.e. still in development stage and not ready for deployment).
Legal	Not evaluated	Currently not formally evaluated.
Market	Relevant, sometimes included	The risk of inaction or insufficient action on climate change and the subsequent market impacts on Baytex are evaluated. Baytex understands that in the future for a company to be a reputable participant in the market meaningful action on climate change is required.
Reputation	Relevant, sometimes included	Baytex is aware that climate change issues are important to our investors and residents in the communities where we operate. As a result, how the company manages emissions and the potential impacts of climate change is becoming increasingly integrated in business strategy. We report emissions to the CDP, National Pollutant Release Inventory (NPRI), and to the EPA using the Electronic Greenhouse Gas Reporting Tool (e-GGRT). We have completed the integration of an emissions tracking database and continuously work to improve processes related to emissions data compilation and internal emissions reporting. Fuel, flare and vent gas reporting improvements are now a key focus as we review non-routine flaring and venting activities and their reporting.
Acute physical	Relevant, always included	Our operated oil and gas operations are located in western Canada. Our field operations could be impacted by severe weather events including flooding, wildfires, lightning and tornadoes. In the past the company has had to temporarily shut-in production due to flooding and wildfires. We have business interruption insurance for key infrastructure and property insurance coverage on larger facilities. These risks are largely unpredictable and uncontrollable, however Baytex does have systems in place that allow for the rapid implementation of emergency response measures and contingencies to reroute production to sales via trucks and rail if required. In addition, Baytex participates in wildfire control planning and emergency response exercises.

Chronic physical	Relevant, always included	When contemplating climate-related risk Baytex considers the effects of increasingly frequent extreme weather events on its operations and physical infrastructure. Examples would include wild fires, heavy precipitation events and temperature extremes (atypically hot and atypically cold events). All of the above-mentioned risks, while unpredictable, can cause material disruptions to production operations. As such, systems have been put in place that allow for the rapid implementation of emergency response and contingency plans designed to mitigate the impact of severe weather events.
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## C2.3

**(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?**

Yes

## C2.3a

**(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.**

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**Identifier**

Risk 1

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

**Primary potential financial impact**

Decreased revenues due to reduced production capacity

**Company-specific description**

Our oil and gas operations are located in western Canada and the state of Texas in the United States. Examples of extreme weather events would include wild fires, heavy precipitation events, flooding and temperatures extremes. These events, while unpredictable, can cause material disruptions to production operations and damage to physical infrastructure.

**Time horizon**

Short-term

**Likelihood**

Likely

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

Due to the unpredictable and short-term nature of these risks, a financial analysis has not been completed.

**Cost of response to risk**

0

**Description of response and explanation of cost calculation**

These risks are largely unpredictable and uncontrollable, however Baytex does have contingencies in place to reroute production to sales via trucks and rail if required. In addition, Baytex participates in wildfire control and emergency response planning.

**Comment**

Costs are not easily quantifiable, but are manageable under most circumstances.

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**Identifier**

Risk 2

**Where in the value chain does the risk driver occur?**

Upstream

**Risk type & Primary climate-related risk driver**

**Primary potential financial impact**

Decreased revenues due to reduced demand for products and services

**Company-specific description**

Tropical cyclones can impact production and refining capacity in various offshore producing regions (example: US Gulf Coast). This can have a positive or negative impact on commodity prices resulting from supply and/or demand disruptions. Based on our business, the impact is direct with our operations near San Antonio, Texas in the Eagle Ford Basin, in that it may impact production and sales revenues.

**Time horizon**

Short-term

**Likelihood**

Very likely

**Magnitude of impact**

Medium-low

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

A longer-term supply or demand disruption could have a meaningful impact on the company's sales revenues. Due to the uncertain nature of these risks, a financial analysis has not been completed.

**Cost of response to risk**

0

**Description of response and explanation of cost calculation**

These risks are largely unpredictable and uncontrollable, however Baytex has commodity price risk management policies and tools in place.

**Comment**

There are no direct costs.

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**Identifier**

Risk 4

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Current regulation  
Carbon pricing mechanisms

**Primary potential financial impact**

Increased direct costs

**Company-specific description**

In 2018, the federal Greenhouse Gas Pollution Pricing Act came into effect in Canada. The Act implements a federal benchmark carbon pollution pricing system applied to fuel and combustible waste. The federal tax rate was \$10/tonne CO<sub>2</sub>e in 2018 and increases \$10/tonne annually to \$50/tonne in 2022. This federal backstop pricing impacts provincial jurisdictions that do not have an equivalent pricing system in place. On April 1, 2019 in the Province of Saskatchewan and on January 1, 2020 in the Province of Alberta the federal backstop program took effect. Both provinces have subsequently obtained federal equivalency for Output Based Performance Standard programs which limit the direct financial exposure to the federal fuel tax. However, these programs have compliance costs associated when performance standards relative to an emissions benchmark cannot be fully met. Without federal equivalency, it was estimated that the annual exposure to the federal fuel tax would have been \$23 million at \$30/tonne and increasing to \$39 million at \$50/tonne. This would have resulted in a substantial increase to operating expenditures in these jurisdictions.

In Saskatchewan, the Output Based Performance System (OBPS) achieved federal equivalency in the fall of 2019. Baytex has registered its operated facilities as an aggregate in the OBPS program. This program requires an annual 1.25% reduction in stationary combustion to a total 15% reduction by 2030. The province of Alberta has also achieved federal equivalency for its Technology Innovation and Emission Reduction (TIER) Regulations and Baytex has registered its producing oil and gas sites as an aggregate facility. The Alberta reduction requirement is 10% immediately from a 2020 benchmark year. It's estimated that annual compliance costs at \$30/tonne will approximate \$1 million.

**Time horizon**

Medium-term

**Likelihood**

Very likely

**Magnitude of impact**

Medium-low

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

1,000,000

**Potential financial impact figure – maximum (currency)**

23,000,000

**Explanation of financial impact figure**

## Cost of response to risk

### Description of response and explanation of cost calculation

Baytex is actively participating with regulatory bodies and industry groups in Alberta and Saskatchewan on the implementation of federally equivalent Output Based Performance Standard Programs. In the jurisdictions Baytex operates, management monitors and reviews developments to provincial and federal carbon pricing policies and the implementation of carbon pricing schemes. There will be additional administrative and reporting requirements associated with maintaining a good standing in the performance systems.

### Comment

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#### Identifier

Risk 3

#### Where in the value chain does the risk driver occur?

Direct operations

#### Risk type & Primary climate-related risk driver

Technology  
Transitioning to lower emissions technology

#### Primary potential financial impact

Increased capital expenditures

#### Company-specific description

Baytex actively invests in various technologies aimed at reducing our GHG emissions intensity. The technologies we invest in are both proven and unproven and, as such, some degree of risk exists where certain technologies ultimately do not meet our expectations.

As we work towards reducing our GHG emissions capital is deployed, and can sometimes be lost, as projects utilizing new technologies are implemented. In order to minimize this risk, and ensure the most efficient means of GHG reduction, these technologies are trialled in smaller pilot projects before being deployed on a large scale.

#### Time horizon

Medium-term

#### Likelihood

Very likely

#### Magnitude of impact

Medium-low

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

**Cost of response to risk**

2,000,000

**Description of response and explanation of cost calculation**

The process of investing in new and existing technologies aimed at reducing GHG emissions and emissions intensity is one Baytex is committed to. To reduce the risk of investing heavily in technologies that are ultimately unsuccessful, Baytex ensures smaller scales trials of all new technologies (or new applications for existing technologies) before investing in larger scale deployment.

**Comment**

Baytex considers the capital invested in trials and testing new technologies to be a means of reducing our cost exposure on a longer-term time horizon. Investing, understanding, and finding better ways to reduce emissions today, allows us to more effectively set and meet GHG related targets going forward.

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**Identifier**

Risk 5

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Emerging regulation  
Enhanced emissions-reporting obligations

**Primary potential financial impact**

Increased indirect (operating) costs

**Company-specific description**

Regulatory uncertainty exists in the Canadian oil and gas sector as new climate-related regulations are announced and come into force. In Canada the regulation of energy and natural resources, including environmental impacts, are shared between the federal

and provincial governments. The Provinces take responsibility for energy and natural resources within their boundaries and have bodies to govern these activities. Methane reduction regulations announced by the Government of Canada have recently been implemented. The Provinces of Alberta and Saskatchewan have developed GHG emissions reduction programs of their own that have achieved equivalency with the federal regulations. Initial methane reduction standards came into effect January 1, 2020. These programs have increasing regulatory stringency in subsequent years and, if specified climate-related outcomes are not being met, additional regulations may come into force. We continue to monitor ongoing developments and proposed regulations to ensure regulatory compliance can be achieved.

**Time horizon**

Short-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Medium-high

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

200,000

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

Additional costs associated with more stringent methane regulations include equipment inventorying and upgrades, air monitoring and meeting additional reporting requirements. Internal staff are being used where possible, with their roles being expanded to include the additional inventorying, surveying or reporting. Initial implementation costs for equipment inventorying and software upgrades are estimated at \$200,000.

**Cost of response to risk**

**Description of response and explanation of cost calculation**

Baytex's risk assessments take into account the current legislative requirements for methane and emission reduction requirements. Our company philosophy is to always meet or exceed regulatory compliance requirements. Emerging GHG regulations are regularly reviewed and Baytex participates in government and industry working groups. This ensures the opportunity to provide input into the regulations as they are being

developed and ensures a better understanding of the future impact of regulatory changes.

Many existing processes and systems can be leveraged to implement regulatory changes. For example, Baytex's Peace River operations fall under Directive 84 and a fugitive emission monitoring program is in place. A system was implemented internally to schedule inspections and store inspection data for regulatory reporting. These learnings and processes have been leveraged across all Canadian operations to ensure compliance with provincial regulations pertaining to fugitive emissions.

#### **Comment**

Management evaluates the costs of improvements to current systems or the necessity of implementing new applications and processes to ensure regulatory compliance. Direct operating cost impacts and capital investment requirements related to regulatory compliance activities are considered and budgeted for. For example, compliance with Saskatchewan's Methane Action Plan required capital investments which were included in the 2019 capital budget; these expenditures, related to methane mitigation, were tracked throughout the year and reported to management and the Board.

## **C2.4**

**(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes

### **C2.4a**

**(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.**

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#### **Identifier**

Opp1

#### **Where in the value chain does the opportunity occur?**

Direct operations

#### **Opportunity type**

Resource efficiency

#### **Primary climate-related opportunity driver**

Use of more efficient production and distribution processes

#### **Primary potential financial impact**

Increased revenues through access to new and emerging markets

#### **Company-specific description**

Baytex's Viking light oil assets are predominantly centralized in the Kindersley, Saskatchewan area where there is limited gas conservation infrastructure in place. For full-year 2018, the Viking assets emitted 1,954,582 tonnes CO<sub>2</sub>e with an intensity of 0.2541 tonnes CO<sub>2</sub>e per BOE. In 2019 Baytex increased its efforts to conserve gas and mitigate methane in the region in an effort to reduce its emissions intensity and ensure compliance with the new Saskatchewan methane reduction regulations. During 2019 the Viking assets emitted 1,498,852 tonnes CO<sub>2</sub>e with an intensity of 0.217 tonnes CO<sub>2</sub>e per BOE.

**Time horizon**

Medium-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

**Cost to realize opportunity**

25,000,000

**Strategy to realize opportunity and explanation of cost calculation**

Ongoing initiatives in the Viking will include: installation of combustors/flare stacks at higher emission sites, increasing capacity of current gas conservation infrastructure, power generation, new multi-well pad site development and evaluation of new gas conservation projects.

**Comment**

The Viking GHG reduction initiative will impact current operations and future development plans. It is currently estimated that \$20 - \$25 million will be invested in reducing the emissions intensity of the Viking assets from 2019 to 2021. Evaluation will be ongoing as technologies are deployed and gas conservation projects are assessed.

## C3. Business Strategy

### C3.1

#### (C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?

Yes, and we have developed a low-carbon transition plan

#### C3.1a

#### (C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?

No, and we do not anticipate doing so in the next two years

#### C3.1c

#### (C3.1c) Why does your organization not use climate-related scenario analysis to inform its strategy?

We have not implemented a climate-related scenario analysis into our business strategy due mainly to increasing uncertainty in the political arena and the impact this is having on GHG policy and regulation development. Baytex will continue to carefully watch the situation; as provincial and federal GHG policies and the associated regulations are solidified.

The implementation of emissions reporting software has provided greater visibility and granularity into the emissions intensity of the corporate portfolio, area assets, and individual facilities' emissions performance. This aids in the forecasting of future corporate emissions, identifying reduction initiatives and in assessing future acquisition and divestiture opportunities, as they relate to emissions.

#### C3.1d

#### (C3.1d) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	To aid in the Viking methane mitigation project, Baytex has purchased higher efficiency combustors technology instead of traditional flare stacks. This purchasing strategy and employing higher efficiency combustors aids in achieving a

		<p>greater reduction in emission intensity on combusted gas.</p> <p>Also, suppliers of low efficiency venting pneumatic devices no longer see orders from Baytex as this technology is phased out.</p>
Supply chain and/or value chain	No	We do not foresee changes at this time that would lead to any substantive influence on our strategies related to our supply chain and/or value chain. Sustainability reporting and ESG transparency has heightened importance to many investors and stakeholders.
Investment in R&D	Yes	Emission reduction initiatives influence R&D investment as the company executes programs designed to mitigate climate-related risks. Examples would be: working closely with vendors to develop low gas volume high efficiency combustor and odour eliminating technologies.
Operations	Yes	<p>There is an influence on our operations associated with the transition to lower emissions intensity production. There have been additional associated logistics and operating requirements. The current Viking methane mitigation program has changed a standard new well setup design and has significant associated capital investment allocated to equipment and gas conservation projects. In the Peace River region, operations have changed significantly over the years with the multi-year gas conservation project.</p> <p>There has been a positive cultural influence on the operations teams as the company transitions from traditionally high emissions intensity production practices to more sustainable low emissions intensity production.</p>

### C3.1e

**(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.**

	Financial planning elements that have been influenced	Description of influence
Row 1	<p>Revenues</p> <p>Direct costs</p> <p>Indirect costs</p> <p>Capital expenditures</p> <p>Capital allocation</p>	<p>Revenues:</p> <p>A long-term supply or demand disruption could have a meaningful positive or negative impact on our sales revenues. Due to the uncertain nature of these risks, a financial analysis has not been completed.</p> <p>Operating Costs:</p> <p>Climate change compliance pricing has impacted Baytex's operating</p>

<p>Acquisitions and divestments</p>	<p>expenses in recent years. Financial analysis is done on the potential increase to operating costs as carbon pricing schemes impact jurisdictions Baytex operates in. Additionally, the operations and maintenance of GHG mitigation infrastructure adds to operating costs.</p> <p>Capital Expenditures/ Capital Allocation: Opportunities to reduce supply energy, reduce emissions and ensure regulatory compliance are factored into the capital budget. Gas conservation projects and methane mitigation projects were budgeted for and project costs tracked. In the short term, budgeting for the Viking gas conservation project has been anticipated and included in 2019 and 2020 planning activities. Management evaluates the economics of gas conservation projects and considers the costs and benefits of emission reduction initiatives.</p> <p>Acquisitions and Divestments: As Baytex evaluates acquiring or divesting assets the emission intensity of the assets and the transactions impact on the company's emissions profile are considered. Analysis is also conducted by the management team around the financial impacts of future emissions intensity reduction initiatives emission intensity with acquired properties.</p>
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### C3.1f

**(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).**

- Baytex remains committed to achieving an aggressive **30% GHG emissions intensity reduction target** for 2019 - 2021, approximately 10% per year, from a 2018 baseline.
- The **Viking methane mitigation project** has been identified as an emission reduction opportunity and Baytex is investing \$25 million on the project.
- We are aware that climate change issues are important to our investors and residents in the communities where we operate and therefore, **managing emissions** and the potential impact on climate change is becoming increasingly integrated into Baytex's business strategy. We report our emissions to the CDP and the National Pollutant Release Inventory (NPRI). We have educated staff on the need for managing climate-related risks and developed an emissions tracking management system. Emission reporting is increasing incorporated into our targets, planning and performance measurement processes.
- Climate change has affected our short-term strategies in our budgeting and development planning with use of **multi-well pads** for increased gas conservation. Increasingly Baytex is utilizing opportunities to consolidate oil and gas production sites. The use of large multi-well production pads allows for a greater variety of GHG reduction opportunities to be considered (increased volumes of available gas and decreased capital costs).
- We are aware of the need for long-term strategy planning and the incorporation of **new technologies** and production practices to minimize our potential effect on climate change.

## C4. Targets and performance

### C4.1

**(C4.1) Did you have an emissions target that was active in the reporting year?**

Intensity target

### C4.1b

**(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).**

---

**Target reference number**

Int 1

**Year target was set**

2019

**Target coverage**

Company-wide

**Scope(s) (or Scope 3 category)**

Scope 1+2 (location-based)

Based on total emissions.

**Intensity metric**

Metric tons CO<sub>2</sub>e per barrel of oil equivalent (BOE)

**Base year**

2018

**Intensity figure in base year (metric tons CO<sub>2</sub>e per unit of activity)**

0.112

**% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure**

100

**Target year**

2021

**Targeted reduction from base year (%)**

30

**Intensity figure in target year (metric tons CO<sub>2</sub>e per unit of activity) [auto-calculated]**

0.0784

**% change anticipated in absolute Scope 1+2 emissions**

45

**% change anticipated in absolute Scope 3 emissions**

0

**Intensity figure in reporting year (metric tons CO2e per unit of activity)**

0.095

**% of target achieved [auto-calculated]**

50.5952380952

**Target status in reporting year**

Underway

**Is this a science-based target?**

No, and we do not anticipate setting one in the next 2 years

**Please explain (including target coverage)**

This is Baytex's first corporate emission intensity target. The company has set a 30% reduction target by 2021, from a 2018 baseline. An approximate reduction of 10% per year for three years is targeted. From the 2018 baseline to 2019, a 15% reduction has been achieved in year one, or 50% of the overall reduction target. Reduction initiatives are predominantly focused on the Viking properties in Saskatchewan.

Emissions intensity, or production carbon intensity, is the measure of total gross operated GHG emissions (tonnes CO2e) per total operated throughput (BOE).

## C4.2

**(C4.2) Did you have any other climate-related targets that were active in the reporting year?**

No other climate-related targets

## C-OG4.2c

**(C-OG4.2c) Indicate which targets reported in C4.1a/b incorporate methane emissions, or if you do not have a methane-specific emissions reduction target for your oil and gas activities, please explain why not and forecast how your methane emissions will change over the next five years.**

Baytex's corporate emission intensity reduction target is based on tonnes of CO2e per throughput boe and will result in a significant corresponding reduction in methane emissions. The Viking methane mitigation project is specifically targeted at reducing methane emissions.

In the Province of Saskatchewan, the Oil and Gas Emissions Management Regulations (OGEMR) came into effect January 1, 2019. As a licensee, Baytex submitted an Emissions Reduction Plan which included emissions forecasted to 2025, annual associated gas

production, flare and vent volumes and identified plans to reduce emissions to target levels by 2025. Starting in 2020, annual emissions intensity limits are set under OGEMR and Baytex plans to meet these regulatory requirements.

### C4.3

**(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.**

Yes

### C4.3a

**(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.**

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation		
To be implemented*		
Implementation commenced*	1	1,200,000
Implemented*	1	75,000
Not to be implemented		

### C4.3b

**(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.**

**Initiative category & Initiative type**

Other, please specify

Other, please specify

Viking Methane Mitigation Project

**Estimated annual CO2e savings (metric tonnes CO2e)**

**Scope(s)**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

0

**Investment required (unit currency – as specified in C0.4)**

25,000,000

**Payback period**

No payback

**Estimated lifetime of the initiative**

6-10 years

**Comment**

Methane mitigation through the installation of high efficiency combustors at previously vented well sites in the Viking production area of Saskatchewan. By the end of 2019, 72 combustors or flare stack had been installed as part of the Viking methane mitigation project.

### C4.3c

**(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

Method	Comment
Compliance with regulatory requirements/standards	Effective economic rate of return and compliance with regulatory requirements in Alberta and Saskatchewan.
Employee engagement	Our sustainability, engineering and operations teams are engaged in seeking out opportunities to economically reduce greenhouse gas emissions.

### C4.5

**(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?**

No

### C-OG4.6

**(C-OG4.6) Describe your organization’s efforts to reduce methane emissions from your activities.**

- The **Viking methane mitigation project** specifically targets a reduction in methane from well-site venting by utilizing gas conservation, high-efficiency gas combustors or flaring. In 2019, Baytex began to focus on methane emissions reduction efforts in the Viking. Oil and gas operations in this area, among all producers, have traditionally involved higher volumes of normally vented methane, as such, this area represented the largest opportunity for Baytex to reduce emissions. Efforts to date have been focussed on increasing gas conservation in areas with available third party take away infrastructure as well as methane destruction efforts in areas lacking infrastructure.

- In the summer of 2019 Baytex implemented a company-wide **fugitive emissions management program (FEMP)** for all operational areas. Regular fugitive emissions surveys (with a FLIR camera) and/or AVO inspections are now conducted at all producing sites. All identified leaks are tracked for emissions reporting purposes and repaired within a specified timeline.
- Since August of 2018 Baytex has operated the **Peace River Instrument Gas to Instrument Air Conversion Project**, which was registered under the Alberta Emission Offset System (Project Identifier 4070-4748). This pilot project involved the conversion of gas driven well site pneumatic systems to compressed air driven systems in the companies Reno production field.
- In July of 2018 Baytex commenced operations of the **Harmon Valley Gas Plant** which was specifically designed to conserve associated gas from heavy oil production in the Peace River field. Historically this gas would have been vented or flared.

## C-OG4.7

**(C-OG4.7) Does your organization conduct leak detection and repair (LDAR) or use other methods to find and fix fugitive methane emissions from oil and gas production activities?**

Yes

## C-OG4.7a

**(C-OG4.7a) Describe the protocol through which methane leak detection and repair or other leak detection methods, are conducted for oil and gas production activities, including predominant frequency of inspections, estimates of assets covered, and methodologies employed.**

In the summer of 2019, Baytex implemented a company-wide **fugitive emissions management program (FEMP)** for all operational areas. Regular fugitive emissions surveys (with a FLIR camera) and/or AVO inspections are now conducted at all producing sites. All identified leaks are tracked for emissions reporting purposes and repaired within a specified timeline.

## C-OG4.8

**(C-OG4.8) If flaring is relevant to your oil and gas production activities, describe your organization's efforts to reduce flaring, including any flaring reduction targets.**

- In our **Peace River** production area, Baytex has continued to expand its gas conservation efforts leading to significantly reduced flaring. The goal of these ongoing infrastructure programs is to reduce routine flaring in the region to less than 5% of all associated gas produced.
- Baytex has identified the Saskatchewan **Viking** operations as a key area to increase gas conservation and reduce emissions through venting and flaring. This area has been particularly challenging with respect to gas conservation given limited natural gas take away options and infrastructure. Despite these challenges, Baytex will increase the number of conserving gas wells through current and future emissions reduction programs.

## C5. Emissions methodology

### C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

#### Scope 1

---

**Base year start**

January 1, 2018

**Base year end**

December 31, 2018

**Base year emissions (metric tons CO<sub>2</sub>e)**

2,739,887

**Comment**

Baytex and Raging River merged on August 22, 2018, and this resulted in an increase in overall absolute emissions for 2018 as compared to 2017. The baseline year of 2018, which includes full year emissions from both entities is 2,739,887 tCO<sub>2</sub>e.

#### Scope 2 (location-based)

---

**Base year start**

January 1, 2018

**Base year end**

December 31, 2018

**Base year emissions (metric tons CO<sub>2</sub>e)**

102,703

**Comment**

Baytex and Raging River merged on August 22, 2018, and this resulted in an increase in overall absolute emissions for 2018 as compared to 2017. The baseline year of 2018, had in-direct full year emissions from both entities of 102,703 tCO<sub>2</sub>e.

#### Scope 2 (market-based)

---

**Base year start**

January 1, 2018

**Base year end**

December 31, 2018

**Base year emissions (metric tons CO<sub>2</sub>e)**

0

**Comment**

Baytex does not report Market based, all Scope 2 is location based.

## C5.2

**(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.**

Act on the Rational Use of Energy

Canadian Association of Petroleum Producers, Calculating Greenhouse Gas Emissions, 2003

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

## C6. Emissions data

### C6.1

**(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO<sub>2</sub>e?**

**Reporting year**

---

**Gross global Scope 1 emissions (metric tons CO<sub>2</sub>e)**

2,230,163

**Comment**

Direct emissions for all Canadian operated properties within the reporting boundaries are included. We include data for joint ventures for which Baytex holds the operating permit or is identified as the operating entity in the contract, regardless of financial ownership.

### C6.2

**(C6.2) Describe your organization's approach to reporting Scope 2 emissions.**

**Row 1**

---

**Scope 2, location-based**

We are reporting a Scope 2, location-based figure

**Scope 2, market-based**

We have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

**Comment**

### C6.3

**(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO<sub>2</sub>e?**

## Reporting year

---

### Scope 2, location-based

112,475

### Comment

Indirect emissions for all Canadian operated properties within the reporting boundaries are included. We include data for joint ventures for which Baytex holds the operating permit or is identified as the operating entity in the contract, regardless of financial ownership.

## C6.4

**(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?**

No

## C6.5

**(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.**

### Purchased goods and services

---

#### Evaluation status

Relevant, not yet calculated

#### Please explain

Baytex GHG strategy is to continuously improve GHG emissions from our operated facilities. Our focus is on emissions that are under our direct operational control.

### Capital goods

---

#### Evaluation status

Relevant, not yet calculated

#### Please explain

Baytex GHG strategy is to continuously improve GHG emissions from our operated facilities. Our focus is on emissions that are under our direct operational control.

### Fuel-and-energy-related activities (not included in Scope 1 or 2)

---

#### Evaluation status

Relevant, not yet calculated

#### Please explain

Baytex GHG strategy is to continuously improve GHG emissions from our operated facilities. Our focus is on emissions that are under our direct operational control.

## Upstream transportation and distribution

---

### Evaluation status

Not evaluated

### Please explain

Baytex GHG strategy is to continuously improve GHG emissions from our operated facilities. Our focus is on emissions that are under our direct operational control.

## Waste generated in operations

---

### Evaluation status

Relevant, not yet calculated

### Please explain

Baytex GHG strategy is to continuously improve GHG emissions from our operated facilities. Our focus is on emissions that are under our direct operational control.

## Business travel

---

### Evaluation status

Not evaluated

### Please explain

Baytex GHG strategy is to continuously improve GHG emissions from our operated facilities. Our focus is on emissions that are under our direct operational control.

## Employee commuting

---

### Evaluation status

Relevant, not yet calculated

### Please explain

Baytex GHG strategy is to continuously improve GHG emissions from our operated facilities. Our focus is on emissions that are under our direct operational control.

## Upstream leased assets

---

### Evaluation status

Not evaluated

### Please explain

Baytex GHG strategy is to continuously improve GHG emissions from our operated facilities. Our focus is on emissions that are under our direct operational control.

## Downstream transportation and distribution

---

### Evaluation status

Not relevant, explanation provided

### Please explain

Calculating third party distribution of our products is not reasonable as it would entail double counting emissions being reported by the mid-stream or transportation companies in our industry. Once our product reaches a distribution point it is combined with the products of other companies and therefore determining the emissions associated specifically with the Baytex products is not feasible.

### Processing of sold products

---

#### Evaluation status

Not relevant, explanation provided

#### Please explain

Calculating third party distribution of our products is not reasonable as it would entail double counting emissions being reported by the mid-stream or transportation companies in our industry. Once our product reaches a distribution point it is combined with the products of other companies and therefore determining the emissions associated specifically with the Baytex products is not feasible.

### Use of sold products

---

#### Evaluation status

Not evaluated

#### Please explain

### End of life treatment of sold products

---

#### Evaluation status

Not evaluated

#### Please explain

### Downstream leased assets

---

#### Evaluation status

Not evaluated

#### Please explain

### Franchises

---

#### Evaluation status

Not evaluated

#### Please explain

### Investments

---

**Evaluation status**

Not evaluated

**Please explain**

**Other (upstream)**

---

**Evaluation status**

Not evaluated

**Please explain**

**Other (downstream)**

---

**Evaluation status**

Not evaluated

**Please explain**

## C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

No

## C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO<sub>2</sub>e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

---

**Intensity figure**

0.00259

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO<sub>2</sub>e)**

2,342,638

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

905,663,200

**Scope 2 figure used**

Location-based

**% change from previous year**

6

**Direction of change**

Increased

**Reason for change**

In 2019, operated sales increased 65% relative to 2018. Absolute emissions increased 74% or 1,000,008 tonne CO<sub>2</sub>e with the Raging River assets incorporated for the full year. This resulted in an overall 6% increase in revenue intensity.

In 2018, Baytex and Raging River merged on August 22, 2018 and the Raging River assets were only included post-closing in the 2018 combined entity reported numbers.

---

**Intensity figure**

0.095

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO<sub>2</sub>e)**

2,342,638

**Metric denominator**

barrel of oil equivalent (BOE)

**Metric denominator: Unit total**

24,735,384

**Scope 2 figure used**

Location-based

**% change from previous year**

12

**Direction of change**

Increased

**Reason for change**

In 2019, emissions intensity increased 12% compared to 2018 with a 74% increase in total emissions and a 56% increase in throughput volumes. In 2018, Baytex and Raging River merged on August 22, 2018 and the Raging River assets were only included post-closing (August 22 to December 31, 2018) in the 2018 combined entity reported numbers.

Compared to the 2018 baseline of 0.112 tonnes CO<sub>2</sub>e/boe, which incorporates both entities for the entire 2018 calendar year, emission intensity has decreased 15% in

2019. This includes an 18% decrease in absolute emissions and a 3% decrease in throughput boe.

---

**Intensity figure**

5,348.49

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO<sub>2</sub>e)**

2,342,638

**Metric denominator**

full time equivalent (FTE) employee

**Metric denominator: Unit total**

438

**Scope 2 figure used**

Location-based

**% change from previous year**

12

**Direction of change**

Decreased

**Reason for change**

In 2019, full time equivalent (FTE) employee emission intensity has increased 97% compared to 2018 with FTE headcount decreasing 12%, or by 57 individuals, and total emissions increasing 74%. The 2018 headcount of 495 included all FTE employees as at December 31, 2018, including the Viking and Duvernay staff from the Raging River merger. However, total emissions were for the combined entity and included the Viking and Duvernay emissions only post-merger from August 22, 2018 on. This resulted in the lower intensity calculation for 2018.

## C-OG6.12

**(C-OG6.12) Provide the intensity figures for Scope 1 emissions (metric tons CO<sub>2</sub>e) per unit of hydrocarbon category.**

---

**Unit of hydrocarbon category (denominator)**

Thousand barrels of crude oil/ condensate

**Metric tons CO<sub>2</sub>e from hydrocarbon category per unit specified**

2,230,163

**% change from previous year**

74

**Direction of change**

Increased

**Reason for change**

Scope 1 emissions increased 74% compared to 2018 with the Viking and Duvernay assets being incorporated for the entire year. In 2018, these assets were only included for a portion of the year from August 22, 2018 post-closing on.

**Comment**

## C-OG6.13

**(C-OG6.13) Report your methane emissions as percentages of natural gas and hydrocarbon production or throughput.**

---

**Oil and gas business division**

Upstream

**Estimated total methane emitted expressed as % of natural gas production or throughput at given division**

10.7

**Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division**

0.3

**Comment**

Total methane of 64,486 tonnes as a percentage of throughput gas and total throughput.

## C7. Emissions breakdowns

### C7.1

**(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?**

Yes

### C7.1a

**(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).**

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	614,478	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	1,612,150	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	3,535	IPCC Fourth Assessment Report (AR4 - 100 year)

## C-OG7.1b

**(C-OG7.1b) Break down your total gross global Scope 1 emissions from oil and gas value chain production activities by greenhouse gas type.**

---

**Emissions category**

Flaring

**Value chain**

Upstream

**Product**

Unable to disaggregate

**Gross Scope 1 CO2 emissions (metric tons CO2)**

**Gross Scope 1 methane emissions (metric tons CH4)**

412

**Total gross Scope 1 emissions (metric tons CO2e)**

93,692

**Comment**

---

**Emissions category**

Combustion (excluding flaring)

**Value chain**

Upstream

**Product**

Unable to disaggregate

**Gross Scope 1 CO2 emissions (metric tons CO2)**

**Gross Scope 1 methane emissions (metric tons CH4)**

155

**Total gross Scope 1 emissions (metric tons CO2e)**

515,920

**Comment**

---

**Emissions category**

Venting

**Value chain**

Upstream

**Product**

Unable to disaggregate

**Gross Scope 1 CO2 emissions (metric tons CO2)**

**Gross Scope 1 methane emissions (metric tons CH4)**

60,424

**Total gross Scope 1 emissions (metric tons CO2e)**

1,532,129

**Comment**

---

**Emissions category**

Fugitives

**Value chain**

Upstream

**Product**

Unable to disaggregate

**Gross Scope 1 CO2 emissions (metric tons CO2)**

**Gross Scope 1 methane emissions (metric tons CH4)**

3,496

**Total gross Scope 1 emissions (metric tons CO2e)**

88,422

**Comment**

## C7.2

**(C7.2) Break down your total gross global Scope 1 emissions by country/region.**

Country/Region	Scope 1 emissions (metric tons CO2e)
Canada	2,230,163

## C7.3

**(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.**

By business division

### C7.3a

**(C7.3a) Break down your total gross global Scope 1 emissions by business division.**

Business division	Scope 1 emissions (metric ton CO2e)
Conventional District	50,819
Duvernay District	8,351
Lloydminster District	346,904
Peace River District	353,965
Viking District	1,470,123

## C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

**(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.**

	Gross Scope 1 emissions, metric tons CO2e	Comment
Oil and gas production activities (upstream)	2,230,163	
Oil and gas production activities (midstream)		No midstream production activities.
Oil and gas production activities (downstream)		No downstream production activities.

## C7.5

**(C7.5) Break down your total gross global Scope 2 emissions by country/region.**

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Canada	112,475		151,473	

## C7.6

**(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.**

By business division

### C7.6a

**(C7.6a) Break down your total gross global Scope 2 emissions by business division.**

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Conventional District	13,398	
Duvernay District	982	
Lloydminster District	40,005	
Peace River District	29,362	
Viking District	28,729	

## C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

**(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.**

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Oil and gas production activities (upstream)	112,475		

Oil and gas production activities (midstream)			No midstream production activities.
Oil and gas production activities (downstream)			No downstream production activities.

## C7.9

**(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?**

Increased

### C7.9a

**(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.**

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption				
Other emissions reduction activities	287,500	Decreased	21	In 2019, the Peace River gas plant was onstream for the entire calendar year compared to 2018 when it was onstream for only half the year. This resulted in a 37,500 tonne CO2e reduction in flaring compared to 2018. The Viking methane mitigation project commenced in H2-2019 and an annual reduction of 250,000 tonnes CO2e can be attributed to the projects progress.
Divestment				
Acquisitions				
Mergers	1,300,000	Increased	97	Baytex and Raging River merged on August 22, 2018, and this resulted in an overall increase in absolute emissions compared to 2017. In 2018, the Raging River assets were only included post-closing in the combined entity reported numbers. 2019 is the first full year post

				merger and an absolute increase of 1,300,000 tonnes CO2e can be attributed to the Viking and Duvernay merged assets.
Change in output				
Change in methodology				
Change in boundary				
Change in physical operating conditions				
Unidentified				
Other				

## C7.9b

**(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Location-based

## C8. Energy

### C8.1

**(C8.1) What percentage of your total operational spend in the reporting year was on energy?**

More than 5% but less than or equal to 10%

### C8.2

**(C8.2) Select which energy-related activities your organization has undertaken.**

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes

Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

## C8.2a

**(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.**

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	2,644,758.2	0	0
Consumption of purchased or acquired electricity		151,473	0	0
Consumption of self-generated non-fuel renewable energy		0		0
Total energy consumption		2,796,231.37	0	0

## C8.2b

**(C8.2b) Select the applications of your organization's consumption of fuel.**

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	No
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No

Consumption of fuel for co-generation or tri-generation	No
---	----

## C8.2c

**(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.**

---

### Fuels (excluding feedstocks)

Diesel

### Heating value

HHV (higher heating value)

### Total fuel MWh consumed by the organization

44,239.3

### MWh fuel consumed for self-generation of heat

0

### MWh fuel consumed for self-generation of steam

0

### Emission factor

2.744

### Unit

kg CO2 per liter

### Emissions factor source

CAPP 2003, Default: Diesel

### Comment

11,537 tonnes CO2e

---

### Fuels (excluding feedstocks)

Propane Gas

### Heating value

HHV (higher heating value)

### Total fuel MWh consumed by the organization

148,419.1

### MWh fuel consumed for self-generation of heat

0

**MWh fuel consumed for self-generation of steam**

0

**Emission factor**

1.507

**Unit**

kg CO2e per liter

**Emissions factor source**

WCI 2011, Default: Propane

**Comment**

32,559 tonnes CO2e

---

**Fuels (excluding feedstocks)**

Natural Gas

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

2,452,099.8

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

359,049.75

**Emission factor**

2.723

**Unit**

kg CO2e per liter

**Emissions factor source**

Alberta CCIR Quantification Methodology, V1.1 November 2018 for CO2 Emission  
Factor. CAPP 2003 for CH4 and N2O Emission Factors.  
CAPP 2007 for Thermal Efficiency.

**Comment**

Natural gas combusted total.  
471,824 tonnes CO2e.

## C8.2d

**(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.**

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	0	0	0	0
Heat	0	0	0	0
Steam	359,049.75	359,049.75	0	0
Cooling	0	0	0	0

## C9. Additional metrics

### C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

**Description**

Other, please specify

**Metric value**

**Metric numerator**

**Metric denominator (intensity metric only)**

**% change from previous year**

**Direction of change**

**Please explain**

### C-OG9.2a

(C-OG9.2a) Disclose your net liquid and gas hydrocarbon production (total of subsidiaries and equity-accounted entities).

	In-year net production	Comment

Crude oil and condensate, million barrels	15.31	Includes light, medium and heavy crude oil net of royalty. US volumes are not included as they are not within operational control.
Natural gas liquids, million barrels	0.44	Net of royalty. US volumes are not included as they are not within operational control.
Oil sands, million barrels (includes bitumen and synthetic crude)	0.7	Net of royalty. US volumes are not included as they are not within operational control.
Natural gas, billion cubic feet	15.97	Net of royalty. US volumes are not included as they are not within operational control.

### C-OG9.2b

**(C-OG9.2b) Explain which listing requirements or other methodologies you use to report reserves data. If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries, please explain this.**

The Baytex reserves report have been prepared in accordance with the standards contained in the Canadian Oil and Gas Evaluations Handbook (COGEH) and reserves definitions contained in NI 51-101.

### C-OG9.2c

**(C-OG9.2c) Disclose your estimated total net reserves and resource base (million boe), including the total associated with subsidiaries and equity-accounted entities.**

	Estimated total net proved + probable reserves (2P) (million BOE)	Estimated total net proved + probable + possible reserves (3P) (million BOE)	Estimated net total resource base (million BOE)	Comment
Row 1	265.99	265.99	265.99	Our disclosure includes our net proved plus probable reserves. We do not provide disclosure of possible or contingent resources. US reserves are not included as they are not within operational control.

## C-OG9.2d

**(C-OG9.2d) Provide an indicative percentage split for 2P, 3P reserves, and total resource base by hydrocarbon categories.**

	Net proved + probable reserves (2P) (%)	Net proved + probable + possible reserves (3P) (%)	Net total resource base (%)	Comment
Crude oil/ condensate/ natural gas liquids	67	67	67	Our disclosure includes our net proved plus probable reserves. We do not provide disclosure of possible or contingent resources. US reserves are not included as they are not within operational control.
Natural gas	13	13	13	Our disclosure includes our net proved plus probable reserves. We do not provide disclosure of possible or contingent resources. US reserves are not included as they are not within operational control.
Oil sands (includes bitumen and synthetic crude)	20	20	20	Our disclosure includes our net proved plus probable reserves. We do not provide disclosure of possible or contingent resources. US reserves are not included as they are not within operational control.

## C-OG9.2e

**(C-OG9.2e) Provide an indicative percentage split for production, 1P, 2P, 3P reserves, and total resource base by development types.**

---

### Development type

Oil sand/extra heavy oil

### In-year net production (%)

4

### Net proved reserves (1P) (%)

8

### Net proved + probable reserves (2P) (%)

20

### Net proved + probable + possible reserves (3P) (%)

20

### Net total resource base (%)

### Comment

Our disclosure includes our net proved plus probable reserves. We do not provide disclosure of possible or contingent resources.

US reserves are not included as they are not within operational control.

---

### Development type

Other, please specify

Heavy Oil

### In-year net production (%)

42

### Net proved reserves (1P) (%)

33

### Net proved + probable reserves (2P) (%)

30

### Net proved + probable + possible reserves (3P) (%)

30

### Net total resource base (%)

**Comment**

Our disclosure includes our net proved plus probable reserves. We do not provide disclosure of possible or contingent resources.

US reserves are not included as they are not within operational control.

---

**Development type**

Other, please specify

Conventional (L/M Oil, Condensate, NGL, Natural Gas)

**In-year net production (%)**

53

**Net proved reserves (1P) (%)**

55

**Net proved + probable reserves (2P) (%)**

47

**Net proved + probable + possible reserves (3P) (%)**

47

**Net total resource base (%)**

**Comment**

Our disclosure includes our net proved plus probable reserves. We do not provide disclosure of possible or contingent resources.

US reserves are not included as they are not within operational control.

---

**Development type**

Tight/shale

**In-year net production (%)**

2

**Net proved reserves (1P) (%)**

3

**Net proved + probable reserves (2P) (%)**

3

**Net proved + probable + possible reserves (3P) (%)**

3

**Net total resource base (%)**

**Comment**

Our disclosure includes our net proved plus probable reserves. We do not provide disclosure of possible or contingent resources.

US reserves are not included as they are not within operational control.

**C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6**

**(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?**

	Investment in low-carbon R&D	Comment
Row 1	No	

**C-OG9.7**

**(C-OG9.7) Disclose the breakeven price (US\$/BOE) required for cash neutrality during the reporting year, i.e. where cash flow from operations covers CAPEX and dividends paid/ share buybacks.**

50

**C10. Verification**

**C10.1**

**(C10.1) Indicate the verification/assurance status that applies to your reported emissions.**

	Verification/assurance status
Scope 1	No third-party verification or assurance
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	No emissions data provided

**C10.2**

**(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?**

No, we are waiting for more mature verification standards and/or processes

## C11. Carbon pricing

### C11.1

**(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?**

Yes

### C11.1a

**(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.**

Alberta Carbon Competitive Incentive Regulation (CCIR) – ETS

Canada federal fuel charge

Canada federal Output Based Pricing System (OBPS) - ETS

Saskatchewan OBPS - ETS

### C11.1b

**(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.**

#### Alberta Carbon Competitive Incentive Regulation (CCIR) – ETS

---

**% of Scope 1 emissions covered by the ETS**

0

**% of Scope 2 emissions covered by the ETS**

0

**Period start date**

January 1, 2019

**Period end date**

December 31, 2019

**Allowances allocated**

**Allowances purchased**

**Verified Scope 1 emissions in metric tons CO<sub>2</sub>e**

**Verified Scope 2 emissions in metric tons CO<sub>2</sub>e**

**Details of ownership**

Facilities we own and operate

### **Comment**

On January 1, 2020, Technology Innovation and Emission Reduction Regulation (TIER Regulations) came into force in Alberta and replaced the Carbon Competitiveness Incentive Regulation (CCIR). Total Alberta scope 1 (20%) and scope 2 (39%) emissions will be covered in 2020 as Baytex has registered its facilities into the TIER Regulations. The benchmark compliance year is currently set as 2020 for conventional oil and gas aggregates.

### **Canada federal OBPS - ETS**

---

#### **% of Scope 1 emissions covered by the ETS**

60

#### **% of Scope 2 emissions covered by the ETS**

46

#### **Period start date**

April 1, 2019

#### **Period end date**

December 31, 2019

#### **Allowances allocated**

#### **Allowances purchased**

#### **Verified Scope 1 emissions in metric tons CO<sub>2</sub>e**

#### **Verified Scope 2 emissions in metric tons CO<sub>2</sub>e**

#### **Details of ownership**

Facilities we own and operate

### **Comment**

Total Saskatchewan scope 1 and scope 2 emissions have been included as covered as Baytex has registered its facilities with federally with ECCC under OBPS. In 2020 all Canadian operated are registered covered facilities where applicable, with the federal fuel tax coming into force in Alberta January 1, 2020.

### **Saskatchewan OBPS - ETS**

---

#### **% of Scope 1 emissions covered by the ETS**

13

#### **% of Scope 2 emissions covered by the ETS**

10

**Period start date**

November 1, 2019

**Period end date**

December 31, 2019

**Allowances allocated**

**Allowances purchased**

**Verified Scope 1 emissions in metric tons CO2e**

**Verified Scope 2 emissions in metric tons CO2e**

**Details of ownership**

Facilities we own and operate

**Comment**

Saskatchewan scope 1 and scope 2 emissions have been included as covered by OBPS as Baytex registered its facilities with the Province under OBPS, once federal OBPS equivalency for the program was achieved.

## C11.1c

**(C11.1c) Complete the following table for each of the tax systems you are regulated by.**

**Canada federal fuel charge**

---

**Period start date**

January 1, 2019

**Period end date**

December 31, 2019

**% of total Scope 1 emissions covered by tax**

46

**Total cost of tax paid**

2,900,000

**Comment**

Prior to federal equivalency being achieved for the Saskatchewan OBPS program, Baytex paid the federal fuel tax on stationary combustion and flared volumes within its operations. Once federal equivalency was achieved, Baytex facilities were registered provincially and federally as covered facilities.

## C11.1d

### **(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?**

In the jurisdictions Baytex operates, management monitors and reviews developments to provincial and federal carbon tax policies and the implementation of carbon pricing schemes.

In 2018, the federal Greenhouse Gas Pollution Pricing Act came into effect in Canada. The Act implements a federal benchmark carbon pollution pricing system applied to fuel and combustible waste. The federal tax rate was \$10/tonne CO<sub>2</sub>e in 2018 and increases \$10/tonne annually to \$50/tonne in 2022. This federal backstop pricing impacts provincial jurisdictions that do not have an equivalent pricing system in place. On April 1, 2019 in the Province of Saskatchewan and on January 1, 2020 in the Province of Alberta the federal backstop program took effect.

Both provinces have subsequently obtained federal equivalency for Output Based Performance Standard programs which limit the direct financial exposure to the federal fuel tax. In Saskatchewan, the Output Based Performance System achieved federal equivalency in the fall of 2019. Baytex has registered its operated facilities as an aggregate in the OBPS program. The province of Alberta has also achieved federal equivalency for its Technology Innovation and Emission Reduction Regulations and Baytex has registered its producing oil and gas sites as an aggregate facility. However, these programs have compliance costs associated when performance standards relative to an emissions benchmark cannot be fully met. In 2020, compliance costs associated with aggregated covered facilities will apply and are estimated at \$1 million.

## C11.2

### **(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?**

No

## C11.3

### **(C11.3) Does your organization use an internal price on carbon?**

No, and we do not currently anticipate doing so in the next two years

## C12. Engagement

### C12.1

#### **(C12.1) Do you engage with your value chain on climate-related issues?**

Yes, our suppliers

## C12.1a

**(C12.1a) Provide details of your climate-related supplier engagement strategy.**

---

### **Type of engagement**

Innovation & collaboration (changing markets)

### **Details of engagement**

Other, please specify

Engage with suppliers during the development and trialling of new lower emission technologies.

### **% of suppliers by number**

### **% total procurement spend (direct and indirect)**

### **% of supplier-related Scope 3 emissions as reported in C6.5**

### **Rationale for the coverage of your engagement**

To aid in achieving our GHG reduction target and support ongoing activities associated with methane mitigation and emission reduction projects.

### **Impact of engagement, including measures of success**

Higher efficiency combustor technology has been deployed in the Viking area of operations.

### **Comment**

Currently, Baytex is also focusing on emission reporting improvements and accurately quantifying emissions from source and activities. By reporting accurate data to provincial and federal regulators, Baytex is ensuring that climate-related studies performed at various levels of government and industry have best available data related to Baytex's operations. Supplier engagement will become increasingly important as low-carbon products and renewables are investigated.

## C12.3

**(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?**

Direct engagement with policy makers

Trade associations

## C12.3a

**(C12.3a) On what issues have you been engaging directly with policy makers?**

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Cap and trade	Support with minor exceptions	Periodic communications with the Alberta Climate Change Office.	Implementation and interpretation of the Quantification Protocol for Greenhouse Gas Emission Reductions.
Regulation of methane emissions	Support with minor exceptions	Direct feedback on the implementation of new Methane reduction regulations with the Alberta Energy Regulator.	AER Directive 060 - Upstream Petroleum Industry Flaring, Incinerating and Venting. Specifically, sections added to regulate the provinces Methane Reduction Program.
Regulation of methane emissions	Support with minor exceptions	Direct and sustained communications and feedback with the Alberta Energy Regulator.	Implementation and interpretation of Directive 084 - Requirements for Hydrocarbon Emissions Controls and Gas Conservation in the Peace River Area.
Regulation of methane emissions	Support with minor exceptions	Continued feedback on the new Methane reduction regulations with the Saskatchewan Ministry of Energy and Resources Climate Change Branch.	Implementation and refinement of the Saskatchewan Oil & Gas Emissions Management Regulations (OGEMR).
Regulation of methane emissions	Support with minor exceptions	Periodic engagement with the Alberta Government Department of Energy and the Assistant Deputy Minister of Resource Development Policy.	The Alberta Climate Leadership Act and AER Directive 060 - Upstream Petroleum Industry Flaring, Incinerating and Venting. Specifically, sections added to regulate the provinces Methane Reduction Program.
Carbon tax	Support with minor exceptions	Direct feedback with the Saskatchewan Ministry of Energy and Resources.	Development and implementation of Saskatchewan's Output Based Performance Standard with the Ministry of Energy and Resources. Specifically, with respect to the facility aggregation regulations.

## C12.3b

**(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?**

Yes

## C12.3c

**(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.**

---

### Trade association

Explorers and Producers of Canada (EPAC)

### Is your position on climate change consistent with theirs?

Consistent

### Please explain the trade association's position

EPAC advocates on behalf of its Canadian conventional energy producer member companies for government policy that promotes a thriving energy sector. This includes climate-change regulations and policies in the jurisdictions where Baytex operates.

### How have you influenced, or are you attempting to influence their position?

Baytex supports EPAC's mission to advocate to governments, policy makers and regulators to ensure that fiscal and regulatory frameworks encourage investment and responsible development of the Canadian oil and gas industry. Baytex's CEO is a member of the EPAC board which meets regularly to consider issues affecting the Association and provide strategic direction.

## C12.3f

**(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?**

Before engaging with trade associations, government or regulators on topics of climate change policy or regulations, Baytex staff and executives will always meet to align on the purpose and objectives of the engagement.

## C12.4

**(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

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### Publication

In voluntary sustainability report

### Status

Complete

**Attach the document**

 Baytex Sustainability Metrics 2019.pdf

**Page/Section reference**

Page 1 - 2019 Environment Metrics

**Content elements**

Emissions figures

**Comment**

2019 Sustainability Metrics table update is attached. A full Corporate Sustainability Report (CSR) was published in 2018 and Baytex plans to release its fifth CSR in fall 2021.

## C15. Signoff

### C-FI

**(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.**

### C15.1

**(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

	Job title	Corresponding job category
Row 1	Vice President, Light Oil	Other C-Suite Officer

## Submit your response

**In which language are you submitting your response?**

English

**Please confirm how your response should be handled by CDP**

	I am submitting to	Public or Non-Public Submission
I am submitting my response	Investors	Public

**Please confirm below**

I have read and accept the applicable Terms