Module: Introduction

Page: Introduction

CC0.1

Introduction
Please give a general description and introduction to your organization.

Devon Energy Corp. (NYSE: DVN) is an independent energy company engaged in oil and natural gas exploration and production. Devon is among the largest U.S.-based independent producers and is included in the S&P 500 index. The company is based in Oklahoma City and also has a major employment center in Calgary. Devon's operations are focused onshore in the United States and Canada. The company's portfolio of oil and natural gas properties provides stable, environmentally responsible production and a platform for future growth. For 2016, the company's production mix for retained assets was 38 percent natural gas and 62 percent oil and liquids such as propane, butane and ethane. Devon's mission is to be a results-oriented oil and natural gas company that creates value for stakeholders in an employee culture of optimism, teamwork, creativity and resourcefulness, and by doing business in an open and ethical manner. For more information about Devon, please visit www.devonenergy.com.

CC0.2

Reporting Year
Please state the start and end date of the year for which you are reporting data.
The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.
We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.
Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

Enter Periods that will be disclosed
Fri 01 Jan 2016 - Sat 31 Dec 2016

CC0.3

Country list configuration

Please select the countries for which you will be supplying data. If you are responding to the Electric Utilities module, this selection will be carried forward to assist you in completing your response.

Select country
United States of America
Canada

CC0.4

Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

USD($)

CC0.6

Modules

As part of the request for information on behalf of investors, companies in the electric utility sector, companies in the automobile and auto component manufacturing sector, companies in the oil and gas sector, companies in the information and communications technology sector (ICT) and companies in the food, beverage and tobacco sector (FBT) should complete supplementary questions in addition to the core questionnaire.

If you are in these sector groupings, the corresponding sector modules will not appear among the options of question CC0.6 but will automatically appear in the ORS navigation bar when you save this page. If you want to query your classification, please email respond@cdp.net.
If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below in CC0.6.

Further Information

Module: Management

Page: CC1. Governance

CC1.1

Where is the highest level of direct responsibility for climate change within your organization?

Board or individual/sub-set of the Board or other committee appointed by the Board

CC1.1a

Please identify the position of the individual or name of the committee with this responsibility

The responsibility is with a subset of the Board of Directors or a committee appointed by the Board.

The Board's Governance Committee, among other things, oversees the company's compliance with legal and regulatory requirements, reviews the company's financial risk exposure and the steps management has taken to monitor and control such exposure, and monitors the business practices and ethical standards of the company. The corporate governance standards that have been approved by the Board are reflected in the Code of Business Conduct and Ethics for all Directors, officers and employees. The Governance Committee is prepared to respond quickly to new regulatory requirements and emerging best practices.

CC1.2

Do you provide incentives for the management of climate change issues, including the attainment of targets?

Yes

CC1.2a

Please provide further details on the incentives provided for the management of climate change issues

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
All employees	Recognition (non-monetary)	Other: Positive recognition within the company	Employees are recognized within their operating units for work they do to improve efficiency and to reduce greenhouse gas emissions through the application of technology. These same efforts are recognized broadly through our internal and external websites. These communications are important ways to inform our external stakeholders about our efforts to address emissions. It also helps demonstrate to our employees that Devon considers emissions reduction a high priority and business units that contribute to that effort deserve recognition.
Facility managers	Recognition (non-monetary)	Other: Positive recognition within the company	Employees are recognized within their operating units for work they do to improve efficiency and to reduce greenhouse gas emissions through the application of technology. These same efforts are recognized broadly through our internal and external websites. These communications are important ways to inform our external stakeholders about our efforts to address emissions. It also helps demonstrate to our employees that Devon considers emissions reduction a high priority and business units that contribute to that effort deserve recognition.
All employees	Recognition (non-monetary)	Other: Positive recognition within the company	Devon US & Canada continually strive to reduce energy consumption and improve efficiencies amongst our assets. Whether it be conservation of solution gas from heavy oil wells, lowering of steam emissions required to produce a barrel of oil from SAGD wells or retrofitting existing controllers with low bleed devices, all employees are encouraged to manage climate change issues by recognizing individuals for their efforts in this sphere.
All employees	Monetary reward	Other: Prize competition to foster creative thinking and collaboration	Devon has launched employee competitions with monetary rewards for winning teams to foster creative thinking and collaboration to overcome challenges facing our business. Implementation of resulting efficiency improvements have reduced energy use in transportation and operations, thus reducing emissions.

Further Information

Page: CC2. Strategy

CC2.1

Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

Integrated into multi-disciplinary company wide risk management processes

CC2.1a

Please provide further details on your risk management procedures with regard to climate change risks and opportunities

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Six-monthly or more frequently	Board or individual/sub-set of the Board or committee appointed by the Board	North America	> 6 years	Devon considers risks as far into the future as is practicable given variability in economic, regulatory and technological circumstances. While we pay close attention to developments in the climate change sphere, we are not in a position to speculate on and act on potential risks without appropriate information to justify the action.

CC2.1b

Please describe how your risk and opportunity identification processes are applied at both company and asset level

i) How Risks/opportunities are assessed at a company level

Management of climate change-related risks follows the same risk-assessment process as other business risks, based on the likelihood of their occurrence and their economic and non-economic impacts. Business risks are evaluated using Devon's corporate risk matrix, which identifies and evaluates environmental risks as a risk category. With each new opportunity or proposal, the corporate EHS group along with corporate planning, working closely with the Public and Government Affairs group, evaluates the potential business impact through policy analysis and financial impact modelling. This process helps to initiate development of strategies to mitigate business risk.

Our objective is to maintain an understanding of the potential impacts of emerging regulation and to recommend ways to proactively mitigate risk. This focus also

includes consideration of opportunities to reduce emissions, improve energy efficiency and develop carbon capture and storage initiatives.

ii) How Risks/opportunities are assessed at an asset level (asset level is defined as anything below company level such as individual sites and subsidiaries)

For Devon's oil sands operations, GHG risks at each facility are accounted for on an individual project basis and every project is required to complete a project valuation prior to approval, which includes a risk assessment and economic analysis. In 2016 the process was modified to include a government-established carbon price of $30 per ton of carbon dioxide equivalent. This price was set to account for the cost or benefit associated with any change in GHG emissions resulting from the project. This price has increased to account for higher carbon pricing that is being implemented in Alberta. The current standard to which carbon pricing is applied is being changed through the government from a facility based carbon performance standard to a product based performance standard.

CC2.1c

How do you prioritize the risks and opportunities identified?

Devon uses criteria such as the likelihood of the risk occurring and the economic and non-economic impacts to determine materiality/priorities with respect to the climate change risk management process. Business risks are evaluated using Devon's corporate risk matrix, which specifically identifies and evaluates environmental risks as a risk category.

CC2.1d

Please explain why you do not have a process in place for assessing and managing risks and opportunities from climate change, and whether you plan to introduce such a process in future

Main reason for not having a process	Do you plan to introduce a process?	Comment

CC2.2

Is climate change integrated into your business strategy?

Yes

CC2.2a

Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process

i) How the business strategy has been influenced, i.e. the internal process for collecting and reporting information to influence the strategy?

The primary influence on business strategy related to climate change is regulation. We have developed a strategy to help manage regulatory mandates in the United States and Canada. We also consider how future GHG related mandates might impact operations.

In Canada, all sources of GHGs (venting, combustion, fugitive emissions, etc.) at all facilities are monitored, and reporting is done at larger facilities as per regulatory requirements.
In the U.S. Devon collects data and submit annual GHG emissions according to the requirements of EPA's Mandatory Greenhouse Gas Reporting Rule. Devon closely follows regulatory changes to the program.

ii) In Canada, Devon is required to reduce GHG emissions intensity from its Jackfish thermal heavy oil facility by 20% below baseline levels in 2017. This is regulated under the Alberta Specified Gas Emitters Regulation. Beginning in 2018, these same facilities will be subject to a product based performance standard. Devon is continually working to improve efficiency, which results in a lower GHG emission intensity. Employees participate in a number of industry associations to monitor current and emerging GHG and climate change policy at the state, provincial and federal levels.

Our strategy of communicating, monitoring, reporting and targeting reductions allows us to maintain regulatory compliance while proactively looking ahead to potential mandates in the future.

iii) What aspects of climate change have influenced the strategy?

Impending regulation has impacted our environmental strategy. Devon has modified its environmental strategy by creating a policy group to monitor upcoming environmental regulation and prepare the business to comply.

Devon primarily emits carbon dioxide and methane in the process of producing natural gas and oil. The company has seen several proposed and final rules pertaining to GHG emissions that have affected our business.
The EPA's GHG Mandatory Reporting Rule requires operators to report GHG emissions from petroleum and natural gas systems. The EPA has also finalized clean air standards for oil and gas (New Source Performance Standards (NSPS) subparts OOOO and OOOOa). The rules call for reductions in volatile organic compounds and methane. Most recently, Devon is evaluating the risk around controlling emissions at existing facilities on Bureau of Land Management (BLM) lands as part of the BLM Methane and Waste Prevention Rule. These regulations require Devon to modify existing procedures, add additional resources to process and collect data, and modify sites to implement additional control equipment. Collectively these new regulations increase Devon's compliance costs.

In addition to our on-going effort to accommodate changing regulatory reporting requirements, we continue to promote energy efficiency and emissions reduction initiatives that ensure short-term and long-term compliance. For example, in the US we have created a voluntary leak detection program and are working to install storage tank emission controls and remote data collection technology at newly acquired production sites. In Canada, leak detection and repair is required by regulation. These measures help reduce GHG emissions from our production sites, improving our ability to comply with state, provincial and federal emissions

requirements.

iv) How the short term strategy has been influenced by climate change

Emissions and operating costs are linked. As we improve our energy efficiency, our emissions decline along with our costs. Within our organization, we encourage conservation and the development of new emission-reducing technologies. We believe energy efficiency and conservation are the most immediate and cost effective ways to reduce emissions.

v) How the long term strategy has been influenced by climate change

We are assessing emerging technologies that could reduce GHG emissions associated with our energy production operations. For example, Devon is a charter member of Canada's Oil Sands Innovation Alliance, which is a collaborative partnership of oil sands producers focusing on innovative solutions to environmental challenges, such as emissions reduction. We also are actively engaged in collaborative efforts to explore the potential for carbon capture and storage technologies as part of our long-term (10+ year) strategy for reducing GHG emissions.

vi) How this is gaining you strategic advantage over your competitors

Part of our business strategy is to be an innovative industry leader in exploration and production as well as in stewardship. Our reputation as an environmental steward and our subsequent social license to operate gives Devon a strategic advantage over many competitors. By taking a proactive approach to emissions reduction and other sustainability issues, we earn stakeholder trust. For example, we are demonstrating our leadership position in emissions technology through the work of our employees as well as through our collaborative relationships. As we incorporate new emission reduction ideas, we reduce emissions, earn continued trust and lower the cost of regulatory compliance.

vii) What have been the most substantial business decisions made during the reporting year that have been influenced by the climate change driven aspects of the strategy.

The aspect that has most influenced business decisions is regulation, and the need to adapt to growing regulatory pressure to lower carbon emissions in the United States and Canada. The most substantial business decision we have made involves our long-term, proactive approach to emissions reduction. This approach was established long before emissions became a prominent issue of public interest. For example, from 2003 to 2013, Devon voluntary participated in the Environmental Protection Agency's Natural Gas STAR program, earning recognition over multiple years for industry leadership. Devon's Natural Gas STAR participation, prepared our company to accommodate sweeping new EPA emissions standards that are outlined above. Our experience with voluntary programs like Natural Gas STAR prepared us to meet the new mandates with limited disruption and cost.

CC2.2b

Please explain why climate change is not integrated into your business strategy

CC2.2c

Does your company use an internal price on carbon?

Yes

CC2.2d

Please provide details and examples of how your company uses an internal price on carbon

Devon Canada uses an internal price of carbon that is based on the provincially regulated price of carbon. For example, in 2016 Devon's Jackfish SAGD projects paid a price of $20/tCO2e on any emissions that exceeded the facility emissions threshold. In 2017 the price was increased to $30/ tCO2e. This internal price of carbon is included in project economics when evaluating future projects to identify the most economically viable projects.

CC2.3

Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (tick all that apply)

Direct engagement with policy makers
Trade associations

CC2.3a

On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Clean energy generation	Support	Devon is actively engaged in conversations and presentations at all levels, promoting the benefits of clean burning natural gas as a base-load and peak-demand electric generating fuel.	While Devon believes free markets tend to find the best, most cost effective solutions to public policy problems, the company would support reasonable measures to encourage electric generation from natural gas.

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Other:	Neutral	Devon reports greenhouse gas emissions to the EPA annually through the Greenhouse Gas Mandatory Reporting Rule. Collectively this information is used to influence policy.	None

CC2.3b

Are you on the Board of any trade associations or provide funding beyond membership?

Yes

CC2.3c

Please enter the details of those trade associations that are likely to take a position on climate change legislation

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
American Petroleum Institute	Consistent	The petroleum industry is committed to improving air quality, while continuing to meet the energy demands of our nation. Cleaning the air requires a sound scientific understanding of the sources and impacts of air contaminants. The petroleum industry sponsors and participates in research that seeks these answers. Environmental air issues are complex. The impact on air quality of pollutant emissions is determined by the EPA under the authority of the Clean Air Act.	Yes, Devon engages directly with industry and association leaders to help shape policy positions in ways that serve the interest of all stakeholders.
American Exploration & Production Council	Consistent	Devon, a U.S.-based oil and natural gas producer with operations focused in North America, shares AXPC's view that the U.S. economy is dependent on our ability to produce domestic energy in a way that is compatible with the environment.	Devon is an active member of various AXPC boards and committees, which take up issues surrounding emissions, water and other environmental concerns.
Independent Producers Association of	Consistent	Devon, a U.S.-based oil and natural gas producer with operations focused in North America, shares IPAA's mission of supporting U.S. production of oil and natural gas in ways that is compatible with the environment.	Devon is a long-time member of IPAA and is active on many of its boards and committees, which take up issues

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
America			surrounding emission, water and other environmental concerns.
Canadian Association of Petroleum Producers	Consistent	Climate change is an important global issue, requiring attention across industries and around the globe. Balanced policy should deliver economic growth, environmental protection, and a secure and reliable energy supply.	Devon engages directly with industry and association leaders to help shape policy positions that balance economic growth, environmental protection, and a secure and reliable energy supply.

CC2.3d

Do you publicly disclose a list of all the research organizations that you fund?

CC2.3e

Please provide details of the other engagement activities that you undertake

CC2.3f

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?

In the U.S., we are focused on a comprehensive regimen of regulatory emissions mandates established in recent years by the Environmental Protection Agency. Our business units operate within the parameters of these mandates and our Environmental Health and Safety Department performs annual audits companywide to ensure these rules are followed. Additionally, Devon requires vendors to perform work according to environmental, health and safety rules in all Master Service Agreements (MSA).

In Canada, an Environment, Health and Safety Management System (EHSMS) has been developed and was implemented in 2014. A guiding principal of the

EHSMS is that the management and minimization of environmental risks and liabilities must be integral in our operations. Devon recognizes that management must take action in creating and promoting environmentally responsible actions, and the purpose of the EHSMS is to ensure consistency and alignment across all business units. All Devon Canada operations must adhere to the principals and practices within the EHSMS. The system will continuously be updated to meet or exceed all regulations and generally accepted environmental management practices. This is implemented through an environmental policy management group that follows emerging policy closely and ensures that advocacy positions are aligned with corporate strategy.

CC2.3g

Please explain why you do not engage with policy makers

Further Information

Page: CC3. Targets and Initiatives

CC3.1

Did you have an emissions reduction or renewable energy consumption or production target that was active (ongoing or reached completion) in the reporting year?

Intensity target

CC3.1a

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions covered by target (metric tonnes CO2e)	Target year	Is this a science-based target?	Comment

CC3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions covered by target	Target year	Is this a science-based target?	Comment
Int1	Scope 1	74%	20%	Metric tonnes CO2e per unit of production	2011	0.3661	2017	Yes, but this target has not been approved as science-based by the Science Based Targets initiative	The baseline emission intensity is based on an average of 3 years operation (2010 – 2012) . This target applies to 74% of Devon's Canadian GHG emissions.
Int2	Scope 1+2 (location-based)	74%	0%	Metric tonnes CO2e per unit of production	1900		2018	Yes, but this target has not been approved as science-based by the Science Based Targets initiative	Future regulation will be based on emission intensity performance relative to other in-situ oil sands facilities. The recommendation to the government has stated Devon's target will be top quartile emission intensity performance. Scope 1 and Scope 2 emissions are included in this emissions intensity. This target applies to 74% of Devon's Canadian GHG Emissions

CC3.1c

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
Int1	Increase	18	No change	0	There was an 18% increase in the absolute emissions of the emissions subject to this intensity target. Absolute emissions increased between 2015 and 2016 due to an increase in production.
Int2	No change	0	No change	0	Medium-term we expect absolute emissions to remain flat.

CC3.1d

Please provide details of your renewable energy consumption and/or production target

ID	Energy types covered by target	Base year	Base year energy for energy type covered (MWh)	% renewable energy in base year	Target year	% renewable energy in target year	Comment

CC3.1e

For all of your targets, please provide details on the progress made in the reporting year

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
Int1	100%	100%	To date emission intensity has been reduced 11% below baseline emission intensity. The regulatory target was 15% in 2016, and Devon Canada reached that target by contributing to Alberta's Climate Change and Emissions Management Fund.
Int2	0%	0%	This emission intensity target will come into effect in 2018.

CC3.1f

Please explain (i) why you do not have a target; and (ii) forecast how your emissions will change over the next five years

CC3.2

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

CC3.2a

Please provide details of your products and/or services that you classify as low carbon products or that enable a third party to avoid GHG emissions

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment

CC3.3

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

Yes

CC3.3a

Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	13	0
To be implemented*	0	0
Implementation commenced*	8	3150
Implemented*	22	55550
Not to be implemented	6	0

CC3.3b

For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Energy efficiency: Processes	Sharing of Operational Best Practices for Energy Efficiency.	0	Scope 1	Voluntary	0	0			This was a sharing of operational best practices between Canada's Oil Sands Innovation Alliance (COSIA) members, focusing on energy efficiency and emissions reductions at SAGD facilities. There was a focus on the performance impact of fouling on heat exchangers.
Other	Interactive SAGD Flowsheet Model for Technology Evaluations	0	Scope 1	Voluntary	0	0			Enabling technology. A web-based software to evaluate GHG emission reduction technologies and their impact on SAGD facilities by performing simplified mass and energy balances at the block flow diagram level.
Other	Capturing casing gas from 18 well pads to offset propane use onsite and reduce venting.	50000	Scope 1	Voluntary Mandatory	550000	1500000			
Fugitive	Devon Canada conducts a	5500	Scope	Mandatory	40000	18000	<1 year	Ongoing	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
emissions reductions	fugitive emission audit annually at our oil sands facilities. The majority of leaks are repaired during the audit. Leaks that cannot be repaired during the audit are evaluated if they are economically feasible to make, and then are repaired at a later date.		1						
Fugitive emissions reductions	This project involves completing voluntary leak detection surveys at US production facilities using infrared cameras.	3150	Scope 1	Voluntary	6808	2400000	>25 years	6-10 years	
Energy efficiency: Processes	Devon Canada has formed a team to manage fuel gas efficiency in our steam generators.	0	Scope 1	Voluntary	2	0	<1 year	Ongoing	
Energy efficiency: Building services	Devon Canada is continuously focusing on maintaining and improving our steam to oil ratio.	0	Scope 1	Voluntary	2	0	<1 year	Ongoing	

CC3.3c

What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	Solution case conservation and leak detection and repair surveys are performed in accordance with regulation. Regulated emission intensity reduction targets at Jackfish help drive efficiency initiatives, such as steam-to-oil ration (SOR) optimization, and fuel gas efficiency initiatives.
Dedicated budget for low carbon product R&D	Devon Canada's COSIA Technology Team had funding dedicated to GHG reduction projects in 2016.
Employee engagement	Devon Canada has a database where employees can enter new ideas for projects, including GHG reduction projects, and be involved in the screening and development of these projects.
Internal price on carbon	Devon Canada uses an internal price of carbon that is based on the provincially regulated price of carbon. For example, in 2016 Devon's Jackfish SAGD projects paid a price of $20/tCO2e on any emissions that exceeded the facility emissions threshold. In 2017 the price was increased to $30/ tCO2e. This internal price of carbon is included in project economics when evaluating future projects to identify the most economically viable projects.

CC3.3d

If you do not have any emissions reduction initiatives, please explain why not

Further Information

Page: CC4. Communication

CC4.1

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)

Publication	Status	Page/Section reference	Attach the document	Comment
In other regulatory filings	Complete	102, 105, 106, 107	https://www.cdp.net/sites/2017/78/4678/Climate Change 2017/Shared Documents/Attachments/CC4.1/Devon Energy 2017 Proxy Statement.pdf	Devon has also engaged in extensive research and development over the past several years to expand its future resources by introducing new technologies and upgrading existing operations to reduce emissions from production. For example, Company initiatives have included the following: - Installation of new and improved valves in 700 wells in Wyoming, Oklahoma and Texas that will result in a major reduction in methane emissions, equal to removing more than 13,000 cars from the road; - Introduction of an advanced early production process at several of our sites, allowing the capture of natural gas that would otherwise be lost to the atmosphere; - Conducting research into new techniques such as mixing solvents with the steam we inject into oil sands reservoirs in order to potentially reduce the need for steam and lower fuel consumption and emissions; - Experimenting with the use of oxygen-enriched air to help the combustion chambers we use to generate steam burn hotter, thereby allowing us to produce more steam while burning less gas; and - Developing ways to capture heat energy left over from the gravity drainage process, allowing us to save energy by reducing our demand for electricity from the power grid and reduce greenhouse gas emissions from secondary power generation sources.
In mainstream reports (including an integrated report) but have not used the CDSB Framework	Complete	5, 16, 17, 18, 19, 20, 21, 22, 23, 25, 63, 67, 68, 104, ex.99.1	https://www.cdp.net/sites/2017/78/4678/Climate Change 2017/Shared Documents/Attachments/CC4.1/Devon Energy 2016 10-K.pdf	Policy makers at both the U.S. federal and state levels have introduced legislation and proposed new regulations designed to quantify and limit the emission of greenhouse gases through inventories, limitations and/or

Publication	Status	Page/Section reference	Attach the document	Comment
				taxes on greenhouse gas emissions. For example, both the EPA and the BLM have issued regulations for the control of methane emissions, which also include leak detection and repair requirements, for the oil and gas industry. Legislative and state initiatives to date have generally focused on the development of cap-and-trade and/or carbon tax programs. A cap-and-trade program generally would cap overall greenhouse gas emissions on an economy-wide basis and require major sources of greenhouse gas emissions or major fuel producers to acquire and surrender emission allowances. Carbon taxes could likewise affect us by being based on emissions from our equipment and/or emissions resulting from the use of our products by our customers. Although it is not possible at this time to predict how legislation or new regulations that may be adopted to address greenhouse gas emissions would impact our business, any such future laws and regulations imposing reporting obligations on, or limiting emissions of greenhouse gases from, our equipment and operations could require us to incur costs to reduce emissions of greenhouse gases associated with our operations. Limitations on greenhouse gas emissions could also adversely affect demand for oil and gas, which could have a material adverse effect on our profitability, financial condition and liquidity. In 2015, Alberta released a new Climate Leadership Plan. This plan includes implementing an economy-wide carbon price effective in 2017. The plan also includes a legislated limit for oil sands emissions and a methane emission reduction plan which are

Publication	Status	Page/Section reference	Attach the document	Comment
				under development. Regulations are expected to be finalized by 2018. It is expected that these initiatives will create additional costs for the Alberta oil and gas industry.
In voluntary communications	Complete	1, 5, 6, 7, 8, 9, 11, 12, 13	https://www.cdp.net/sites/2017/78/4678/Climate Change 2017/Shared Documents/Attachments/CC4.1/DVN-2016-CSR_FINAL_Updated.3.7.17.pdf	At Devon, we employ the best tools and techniques to capture methane in our well completions and production operations. We're often asked if we use LDAR (systematic leak detection and repair). The answer, of course, is yes. Equipment inspections are performed using optical gas imaging cameras to detect leaks. Repairs are made in timely fashion, and verified – often using the same cameras. It's all part of a culture of continuous improvement at Devon – finding ways to be more efficient and effective in everything we do.

Further Information

Module: Risks and Opportunities

Page: CC5. Climate Change Risks

CC5.1

Have you identified any inherent climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Risks driven by changes in regulation
Risks driven by changes in other climate-related developments

CC5.1a

Please describe your inherent risks that are driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Carbon taxes	In Alberta, The Devon Jackfish SAGD facilities are subject to the Specified Gas Emitters Regulation; an intensity based GHG regulation requiring a 15% reduction in emissions intensity with a carbon price, set by regulators, at $20 per tCO2E. The current Regulation will change to a product based performance standard in 2018, and an increase in carbon price to $30 per tCO2e in 2017. As Devon's production in the oil sands	Increased operational cost	>6 years	Direct	Virtually certain	Low	Compliance with Alberta's Specified Gas Emitters Regulation costs Devon Canada approximately $1,710,000 in 2016 in payments into the clean technology fund, and an additional $110,000 in costs to prepare and verify the GHG reports. The current regulation results in a cost of $0.02-$0.10 per barrel of oil equivalent (BOE), however under the new regulation the costs are anticipated to increase ($0.10 - $0.50 per barrel)	Devon manages this risk through continuous improvement of operational efficiencies, reductions in steam to oil ratio, and evaluation of new technologies that could reduce GHG emissions. For example, at our Jackfish facility Devon has formed a team to manage fuel gas efficiency at our steam generators. Expected emission reductions has not been quantified at this time, but Devon expects a cost savings of $2 – 3/GJ of fuel	Devon Canada has a team dedicated to evaluating new technologies that could improve energy efficiency and/or reduce GHG emissions. Devon also has a team dedicated to understanding how the proposed change in regulation would impact existing and future projects. Other employees were also engaged as required.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	increases, additional facilities will be subject to this new regulation. The overall costs to operate the facility will increase as a result of the change in regulation and increase in carbon price.							savings.	
Emission reporting obligations	Emitters that meet certain operational or emission threshold limits are required to collect, track, calculate and report emissions.	Increased operational cost	1 to 3 years	Direct	Very likely	Medium	Unknown	Development and maintenance of companywide emissions inventory system.	Information is not available.
General environmental regulations, including planning	Development of regulations that require installation or retrofit of emitting equipment, or installation of emission control equipment. Development of cap and trade structures that	Increased operational cost	1 to 3 years	Direct	Likely	Medium	Unknown	Development and execution of proactive programs focused on upgrading emissions technology before mandates develop.	Information is not available.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	could cause additional operation cost or operational interruptions.								

CC5.1b

Please describe your inherent risks that are driven by changes in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management

CC5.1c

Please describe your inherent risks that are driven by changes in other climate-related developments

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Reputation	Misinformation concerning GHG emissions from	Wider social disadvantages	1 to 3 years	Direct	About as likely as not	Medium	While climate change poses reputational	The key to managing our reputation in the	The cost of managing this reputational risk is

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	groups opposed to oil and gas development could harm public perception of the industry and damage our social license to operate. Such damage could have implications for Devon's hydraulic fracturing operations including New Mexico's Delaware Basin and Oklahoma's STACK play and our Jackfish Canadian oil sands operations. Impeding Devon's ability to develop and operate new projects, or to produce and export oil from Canada, could have a direct impact on the company's financial condition.						risk, its cost poses no direct financial implications ($0) beyond our overall effort to earn and maintain the public's trust.	midst of misinformation is communication and operational excellence. We work to communicate with the public, with policy makers and other stakeholder groups about the technological solutions we deploy to mitigate environmental risks. For example, we cite our pioneering use of low-emission well completion technology in shale natural gas production. We educate our stakeholders about our work with Canada's Oil Sands Innovation Alliance to cut emissions from our Jackfish oil sands project. We also work on public education with trade associations such as the American Petroleum Institute, The Canadian Association of Petroleum	part of our overall effort to maintain our social license to operate through operational excellence and communications with stakeholders. These functions overlap and are associated with the normal cost of doing business.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								Producers and the Independent Producers Association of America. Finally, we reach out with external communications on emissions, water, land and safety, using our website and CSR report. Through these communications, we keep our stakeholders informed, answer their questions and maintain our social license to operate.	

CC5.1d

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC5.1e

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

Based on our ability to operate in various climates, we do not expect any inherent risks driven by changes in physical climate parameters to generate a substantive change in your business operations, revenue or expenditure. This includes changes in average temperature, temperature extremes, average precipitation, and precipitation patterns.
Devon operates in areas that have historically experienced a wide range of temperatures and precipitation. Our facilities are engineered and constructed to handle varying climates from as far north as Alberta, Canada to Southern Texas in the U.S. Our engineers evaluate what conditions facilities need to withstand and design them accordingly. For example, at our Wyoming assets, Devon uses winter climate packages for our equipment to ensure facilities can withstand the cold temperatures during winter months.
When new development projects are introduced, our water group evaluates the available water resource over the life of the play. For instance, Devon recognizes the inherent risk of water availability in our emerging play in Southeastern New Mexico. Devon's water group evaluated and implemented a strategy to efficiently use available water resources while at the same time reducing Devon's reliance on the water resource. Devon's strategy includes a process to recycle and reuse water for our stimulation jobs. In addition, due to a third party pipeline to move the water, Devon has reduced truck traffic from water hauling.
As with all forward looking aspects associated with our business, we will continue to monitor weather patterns and the science surrounding climate to determine any opportunities at the earliest point possible. If we do identify physical changes that could pose a new opportunity to benefit our business, we will consider appropriate actions.

CC5.1f

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Further Information

Page: CC6. Climate Change Opportunities

CC6.1

Have you identified any inherent climate change opportunities that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Opportunities driven by changes in regulation
Opportunities driven by changes in other climate-related developments

CC6.1a

Please describe your inherent opportunities that are driven by changes in regulation

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Carbon taxes	Alberta's Specified Gas Emitters Regulation, governing emissions from the Jackfish SAGD projects, provides opportunities for Devon to create value from internal emission reductions that qualify as either emission performance credits or offset credits.	Reduced operational costs	1 to 3 years	Direct	Virtually certain	Low-medium	Compliance with Alberta's Specified Gas Emitters Regulation cost Devon Canada approximately $1.7 million in 2016 in payments into the clean technology fund and an additional $100,000 in costs to prepare and verify the GHG reports. Devon is actively pursuing opportunities to reduce GHG emissions and involved in piloting new technologies that could achieve	Devon manages this opportunity through continuous improvement of operational efficiencies, reductions in steam to oil ratio, and evaluation of new technologies. Devon has evaluated various GHG reduction technologies including Front-End Engineering and Design (FEED) studies for waste heat to power using a	It is estimated that Devon Canada will continue to spend $1-$5+ million per year to participate in GHG reduction initiatives annually. Devon Canada has a team dedicated to evaluating new technologies that could improve energy efficiency and/or reduce GHG emissions. Devon Canada has a team working on technology

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							reductions in operational costs due to decreased fuel consumption and/or decreased regulatory compliance costs. Implementation of emission reduction initiatives does increase capital spending; however, the reduction in fuel consumption can provide payback periods ranging from less than 6 months to 3 years or greater. For example, improving fuel efficiency in our steam generators. This could results in potential savings of $2 - $3 per GJ of fuel purchased.	post-combustion carbon capture technology. Operational efficiencies include optimization of the fuel combusted in the steam generators at Jackfish.	evaluations and other projects with potential reductions in GHG emissions. Devon also has a team dedicated to understanding how the proposed change in regulation would impact existing and future projects. Other employees were also engaged as required.
Voluntary agreements	Installation of low/no bleed pneumatic devices on production facilities.	Increased production capacity	1 to 3 years	Direct	Virtually certain	Low-medium	Information not available.	Devon's environmental health and safety program works proactively with	Information not available.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	These upgrades lead to more efficient operations, which result in higher natural gas production and higher profitability for the company.							our field operations to upgrade production equipment to optimize production efficiency and limit emissions.	
Product efficiency regulations and standards	These upgrades lead to more efficient operations, which result in higher natural gas production and higher profitability for the company.	Increased production capacity	1 to 3 years	Direct	Likely	Low-medium	Information not available.	Devon's environmental health and safety program works proactively with our field operations to upgrade production equipment to optimize production efficiency and limit emissions.	Information not available.

CC6.1b

Please describe your inherent opportunities that are driven by changes in physical climate parameters

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management

CC6.1c

Please describe your inherent opportunities that are driven by changes in other climate-related developments

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Other drivers	In addition to achieving the environmental and reputational benefits of lower emissions, Devon also is pursuing opportunities in the U.S. and Canada for fuel savings (and cost savings with potentially significant financial implications) to be found in new tools, technologies and business processes, which could have a positive impact on the company's	Reduced operational costs	1 to 3 years	Direct	More likely than not	Medium	Devon is actively pursuing opportunities to reduce GHG emissions and piloting new technologies that could achieve large volumes of emission reductions in the future, which ultimately reduce cost. The overall financial implications are unknown, but we have determined cost savings associated with measures taken in some of our operating areas	As a method to manage this opportunity, Devon Canada is particularly interested in reducing steam requirements from in situ oil sands production, carbon capture and conversion technologies, vent gas reduction, energy efficiency and waste heat recovery for heat and power. Through the Canadian Oil Sand's Innovation Alliance, Devon is involved in the	Most emissions reduction initiatives require initial financial investments, and in return, the company creates greater efficiency, which improves economics. It is estimated that Devon Canada will continue to spend $1-$4+ million per year to participate in GHG reduction Initiatives. As part of our commitment through partnerships including

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	financial condition. For example, at our Canadian heavy oil operations, when economical, solution gas conservation projects result in fuel gas savings, and cost savings.						as described in our response to question CC 3.3b. These measures include enhanced efficiencies, feasibility and engineering studies, and evaluation of carbon capture technologies in the oil sands, and the capture and use of casing gas. These measures could amount to financial benefit of $2 - $3 per GJ of fuel purchased.	valuation of various GHG reduction technologies, including short-term, incremental opportunities such as energy efficiency measures and optimization initiatives as well as long-term, game-changing technologies such as carbon capture and conversion.	Canada's Oil Sands Innovation Alliance (COSIA), Devon Canada is devoting time and resources to developing new technologies that will achieve emission reductions while generating an acceptable rate of return. In 2016, a team of fulltime employees was dedicated to evaluating technologies and operational practices to reduce greenhouse gas emissions from our oil sands projects.

CC6.1d

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC6.1e

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

At this time, Devon has not identified any opportunities driven by changes in physical climate parameters that have the potential to generate substantive changes in business operations, revenue or expenditure.
Devon operates in areas that have historically experienced a wide range of temperatures and precipitation. Our facilities are engineered and constructed to handle varying climates from as far north as Alberta, Canada to Southern Texas in the U.S. Our engineers evaluate what conditions facilities need to withstand and design them accordingly. For example, at our Wyoming assets, Devon uses winter climate packages for our equipment to ensure facilities can withstand the cold temperatures during winter months.
When new development projects are introduced, our water group evaluates the available water resource over the life of the play. For example in our emerging play in Southeastern New Mexico, Devon's water group evaluated and implemented a strategy to efficiently use available water resources while at the same time reducing Devon's reliance on the water resource. Devon's strategy includes a process to recycle and reuse water for our stimulation jobs.
As with all forward looking aspects associated with our business, we will continue to monitor weather patterns and the science surrounding climate to determine any opportunities at the earliest point possible. If we do identify physical changes that could pose a new opportunity to benefit our business, we will consider appropriate actions.

CC6.1f

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Further Information

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading

Page: CC7. Emissions Methodology

CC7.1

Please provide your base year and base year emissions (Scopes 1 and 2)

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 1	Thu 01 Jun 2006 - Thu 31 May 2007	3680000
Scope 2 (location-based)	Thu 01 Jun 2006 - Thu 31 May 2007	490000
Scope 2 (market-based)	Fri 16 Jun 2017 - Fri 16 Jun 2017	

CC7.2

Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

Please select the published methodologies that you use
American Petroleum Institute Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry, 2009
Canadian Association of Petroleum Producers, Calculating Greenhouse Gas Emissions, 2003
IPCC Guidelines for National Greenhouse Gas Inventories, 2006
IPIECA’s Petroleum Industry Guidelines for reporting GHG emissions, 2003
US EPA Mandatory Greenhouse Gas Reporting Rule
Other

CC7.2a

If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

A national Inventory of Greenhouse Gas (GHG), Criteria Air Contaminant (CAC) and Hydrogen Sulphide (H2S) Emissions by the Upstream Oil and Gas Industry, Volume 3 Methodology for Greenhouse Gases and Volume 5 Compendium of Terminology, Information Sources, Emission Factors, Equipment Sched's and Uncertainty Data, Canadian Association of Petroleum Producers, 2004

CC7.3

Please give the source for the global warming potentials you have used

Gas	Reference
CH4	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	IPCC Fourth Assessment Report (AR4 - 100 year)
CO2	IPCC Fourth Assessment Report (AR4 - 100 year)

CC7.4

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data at the bottom of this page

Fuel/Material/Energy	Emission Factor	Unit	Reference
Electricity	0.74	metric tonnes CO2e per	Environment Canada National Inventory Report 2013: Table

Fuel/Material/Energy	Emission Factor	Unit	Reference
		MWh	A13-10 - Alberta

Further Information

Page: CC8. Emissions Data - (1 Jan 2016 - 31 Dec 2016)

CC8.1

Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Operational control

CC8.2

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e

5381100

CC8.3

Please describe your approach to reporting Scope 2 emissions

Scope 2, location-based	Scope 2, market-based	Comment
We are reporting a Scope 2, location-based figure	We have operations where we are able to access electricity supplier emissions factors or residual emissions factors, but are unable to report a Scope 2, market-based figure	In the United States, where Devon is using the invoice numbers for kilowatts purchased and an emission factor per region, we calculate our scope 2 emissions. At our Jackfish facility Scope 2 emissions are reported annually, as per regulation. An emissions factor is applied to electricity usage onsite. At all other Canadian operations Scope 2 emissions are monitored, but not required to be reported.

CC8.3a

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
571610	0	

CC8.4

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?

Yes

CC8.4a

Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
US Operations - Sources below reporting threshold of EPA's GHG reporting program	Emissions are not relevant	Emissions are not relevant	Emissions are not relevant	Not required to be reported to EPA.

CC8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 5% but less than or equal to 10%	Data Gaps	Some portions of our emissions are verified with few corrections. Regarding other non-verified emissions, we have robust systems that provide data we use in mandated GHG reporting.
Scope 2 (location-based)	More than 2% but less than or equal to 5%	Data Gaps	Some portions of our emissions are verified with few corrections. Regarding other non-verified emissions, we are using published emission factors from the electric companies to estimate emissions.
Scope 2 (market-based)	Less than or equal to 2%	Data Gaps	

CC8.6

Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

Third party verification or assurance process in place

CC8.6a

Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Annual process	Complete	Reasonable assurance	https://www.cdp.net/sites/2017/78/4678/Climate Change 2017/Shared Documents/Attachments/CC8.6a/Carbon Disclosure Project (CDP)_DEV_2016_v1.2 Canada.xls	Verification Reports for Jackfish 1, Jackfish 2 and Jackfish 3 (P. 1-6 in attachment)	ISO14064-3	38

CC8.6b

Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emission Monitoring Systems (CEMS)

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission

CC8.7

Please indicate the verification/assurance status that applies to at least one of your reported Scope 2 emissions figures

No third party verification or assurance

CC8.7a

Please provide further details of the verification/assurance undertaken for your location-based and/or market-based Scope 2 emissions, and attach the relevant statements

Location-based or market-based figure?	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)

CC8.8

Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2

Additional data points verified	Comment
Progress against emissions reduction target	The verification scope includes verifying final Compliance Reports for Devon Canada's Jackfish facilities. This includes verifying 2016 emission intensity compared to the reduction target.
Other:	The verification scope also includes verifying the baseline emission intensity used at the Jackfish facilities.

CC8.9

Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

CC8.9a

Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO2

Further Information

Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2016 - 31 Dec 2016)

CC9.1

Do you have Scope 1 emissions sources in more than one country?

Yes

CC9.1a

Please break down your total gross global Scope 1 emissions by country/region

Country/Region	Scope 1 metric tonnes CO2e
United States of America	2492014
Canada	2889086

CC9.2

Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

By business division
By GHG type
By activity

CC9.2a

Please break down your total gross global Scope 1 emissions by business division

Business division	Scope 1 emissions (metric tonnes CO2e)
U.S. Exploration & Production	2369469
U.S. Midstream	122545
Canada Division	2889086

CC9.2b

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude

CC9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	3869814
CH4	961162
N2O	812

CC9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO2e)
Fuel combustion	3446375
Flaring	430511
Fugitive Emissions	367244
Venting	747251
Storage Losses	389719

Further Information

Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2016 - 31 Dec 2016)

CC10.1

Do you have Scope 2 emissions sources in more than one country?

Yes

CC10.1a

Please break down your total gross global Scope 2 emissions and energy consumption by country/region

Country/Region	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
United States of America	273120	0	361785	0
Canada	298489	0	404605	0

CC10.2

Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

By business division
By activity

CC10.2a

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
U.S. Exploration & Production	272994	0
U.S. Midstream	126	0
Canada Division	298489	0

CC10.2b

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)

CC10.2c

Please break down your total gross global Scope 2 emissions by activity

Activity	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
Electricity: U.S. & Canada	571609	0

Further Information

Page: CC11. Energy

CC11.1

What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

CC11.2

Please state how much heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year

Energy type	MWh
Heat	0
Steam	0
Cooling	0

CC11.3

Please state how much fuel in MWh your organization has consumed (for energy purposes) during the reporting year

18165915

CC11.3a

Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Natural gas	16238999
Distillate fuel oil No 2	1882356
Distillate fuel oil No 1	9272
Propane	35270
Motor gasoline	18

CC11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the market-based Scope 2 figure reported in CC8.3a

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Emissions factor (in units of metric tonnes CO2e per MWh)	Comment
No purchases or generation of low carbon electricity, heat, steam or cooling accounted with a low carbon emissions factor	0	0	While not specifically accounted for in Scope 2 calculations, Devon's U.S. operations are in Oklahoma, where 25% of the state's electricity is generated by wind installations, Texas (13%), New Mexico (11%) and Wyoming (9%). In Canada, the Alberta government has committed that 30% of Alberta's electricity will come from renewable sources by 2030.

CC11.5

Please report how much electricity you produce in MWh, and how much electricity you consume in MWh

Total electricity consumed (MWh)	Consumed electricity that is purchased (MWh)	Total electricity produced (MWh)	Total renewable electricity produced (MWh)	Consumed renewable electricity that is produced by company (MWh)	Comment

Further Information

Page: CC12. Emissions Performance

CC12.1

How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

Increased

CC12.1a

Please 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

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Emissions reduction activities	0.8	Decrease	This year we reduced emissions by 58,650 CO2e due to emissions reductions activities, and last year's total Scope 1 and 2 emissions were 7,006,616 CO2 so the emissions value percentage is (58,650/7006616)*100= .8%
Divestment	9.4	Decrease	In the United States, divestitures were responsible for a 24% reduction in net well count.
Acquisitions			

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Mergers			
Change in output	33	Increase	In Canada, emission intensity decreased at our Jackfish SAGD facilities, but as a result of increased production absolute emissions increased.
Change in methodology			
Change in boundary			
Change in physical operating conditions			
Unidentified			
Other	33	Decrease	At our Canadian cold-flow heavy oil production with sand (CHOPS) facilities emissions decreased as a result of gas conservation, declining production.

CC12.1b

Is your emissions performance calculations in CC12.1 and CC12.1a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

CC12.2

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator: Unit total revenue	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
.0005	metric tonnes CO2e	12197000000	Location-based	2	Decrease	A disproportional reduction in lease operating expenses without a corresponding reduction in production (i.e. revenue) resulted in fewer emissions per dollar. In our Canadian heavy oil operations, we have achieved emission reductions by increasing the amount of solution gas that is conserved onsite.

CC12.3

Please provide any additional intensity (normalized) metrics that are appropriate to your business operations

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
26.69	metric tonnes CO2e	barrel of oil equivalent (BOE)	223000	Location-based	0.79	Increase	Small increase in in the normalized intensity likely the result of a combination of data quality issues and a different asset mix following divestitures.

Further Information

Page: CC13. Emissions Trading

CC13.1

Do you participate in any emissions trading schemes?

Yes

CC13.1a

Please complete the following table for each of the emission trading schemes in which you participate

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership
Alberta Emissions Trading Regulation	Fri 01 Jan 2010 - Fri 30 Jun 2017	19700	193000	193000	Facilities we own and operate

CC13.1b

What is your strategy for complying with the schemes in which you participate or anticipate participating?

In the specific example above, the Specified Gas Emitters Regulation (SGER) applies to Alberta facilities that emit greater than 100,000 tonnes of CO2E annually; currently three Devon Canada facilities (Jackfish 1, Jackfish 2 and Jackfish 3) fall under the regulation. In order to comply with the regulation Devon Canada will purchase offsets, pay into the Alberta Technology Fund or self-develop offsets as required. Over the medium to longer term, emission reductions projects will be evaluated at regulated facilities and new technologies will be tested and developed at the pilot scale for full scale commercial implementation in the future.

Beginning in 2018 the SGER will be replaced with a performance based standard. It is expected that the compliance pathways (reducing emission intensity, paying into the technology fund, or purchasing offsets) will remain the same.

CC13.2

Has your organization originated any project-based carbon credits or purchased any within the reporting period?

No

CC13.2a

Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits canceled	Purpose, e.g. compliance

Further Information

Page: CC14. Scope 3 Emissions

CC14.1

Please account for your organization’s Scope 3 emissions, disclosing and explaining any exclusions

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Not relevant, explanation provided				We are not in a position to gather such information from our hundreds of vendors and service providers. Most do not maintain such information in a uniform way.
Capital goods					
Fuel-and-energy-related activities (not included in Scope 1 or 2)					
Upstream transportation and distribution					
Waste generated in operations					
Business travel					
Employee commuting					
Upstream leased assets					
Downstream transportation and distribution					
Processing of sold products					
Use of sold products					
End of life treatment of sold products					
Downstream leased assets					
Franchises					
Investments					
Other (upstream)					
Other (downstream)					

CC14.2

Please indicate the verification/assurance status that applies to your reported Scope 3 emissions

No third party verification or assurance

CC14.2a

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 3 emissions verified (%)

CC14.3

Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

No, we don’t have any emissions data

CC14.3a

Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment

CC14.4

Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)

No, we do not engage

CC14.4a

Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success

CC14.4b

To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent

Type of engagement	Number of suppliers	% of total spend (direct and indirect)	Impact of engagement

CC14.4c

Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future

Engaging with hundreds of service companies on issues associated with GHG emissions is beyond the scope of our business objectives. Engagement would require significant resources that could otherwise be used to create value for our shareholders.

Meanwhile, our vendors are contractually obligated to comply with laws and regulations associated with emissions. At this time, other than contractual obligations, we do not anticipate developing a plan to directly engage with our vendors on emissions issues.

Further Information

Module: Sign Off

Page: CC15. Sign Off

CC15.1

Please provide the following information for the person that has signed off (approved) your CDP climate change response

Name	Job title	Corresponding job category
Darren Smith	Manager, Environmental Health & Safety	EHS manager

Further Information

Module: Oil & Gas

Page: OG0. Reference information

OG0.1

Please identify the significant petroleum industry components of your business within your reporting boundary (select all that apply)

Exploration, production & gas processing

Further Information

Page: OG1. Production, reserves and sales by hydrocarbon type - (1 Jan 2016 - 31 Dec 2016)

OG1.1

Is your organization involved with oil & gas production or reserves?

Yes

OG1.2

Please provide values for annual gross and net production by hydrocarbon type (in units of BOE) for the reporting year in the following table. The values required are aggregate values for the reporting organization

Product	Gross production (BOE)	Net production (BOE)	Production consolidation boundary	Comment
Associated natural gas Natural gas condensate Natural gas liquids (NGL) Shale gas Light oil Medium oil Heavy oil Bitumen (oil sands) Shale oil Tight oil		223015000	Operational control and equity share	

OG1.3

Please provide values for reserves by hydrocarbon type (in units of BOE) for the reporting year. Please indicate if the figures are for reserves that are proved, probable or both proved and probable. The values required are aggregate values for the reporting organization

Product	Country/region	Reserves (BOE)	Date of assessment	Proved/Probable/Proved+Probable
Associated natural gas Natural gas condensate Natural gas liquids (NGL) Coalbed methane Shale gas Synthetic gas Tight gas Light oil Medium oil Heavy oil Bitumen (oil sands) Shale oil Tight oil	North America	2058000000	Sat 31 Dec 2016	Proved

OG1.4

Please explain which listing requirements or other methodologies you have used to provide reserves data in OG1.3. If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries, please explain this

Devon has filed reserves information with the SEC and the Department of Energy (“DOE”). Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from known reservoirs under existing economic conditions, operating methods and government regulations. To be considered proved, oil and gas reserves must generally be economically producible before contracts providing the right to operate expire. The process of estimating oil, gas and NGL reserves is complex and requires significant judgment. As a result, we have developed internal policies for estimating and recording reserves. Such policies require proved reserves to be in compliance with the SEC definitions and guidance.

OG1.5

Please provide values for annual sales of hydrocarbon types (in units of BOE) for the reporting year in the following table. The values required are aggregate values for the reporting organization

Product	Sales (BOE)	Comment
Associated natural gas Natural gas condensate Natural gas liquids (NGL) Coalbed methane Shale gas Tight gas Light oil Medium oil Heavy oil Bitumen (oil sands) Shale oil Tight oil	4182000000	

OG1.6

Please provide the average breakeven cost of current production used in estimation of proven reserves

Hydrocarbon/project	Breakeven cost/BOE	Comment
The economics of our projects vary significantly based on regional, geological and economic factors.		We are not able to provide an average break even cost of production because market conditions continually change. For example, the price for oil and natural gas fluctuates, which influences the cost of services such as drilling, well completion services transportation and other resources.

OG1.7

In your economic assessment of hydrocarbon reserves, resources or assets, do you conduct scenario analysis and/or portfolio stress testing consistent with a low-carbon energy transition?

Yes, other

OG1.7a

Please describe your scenario analysis and/or portfolio stress testing, the inputs used and the implications for your capital expenditure plans and investment decisions

Carbon fuels account for more than 75 percent of global energy consumption. In light of this fact, we know the curtailment of these resources would diminish economies, impede future growth and eliminate wealth. In the long term, we expect oil, natural gas and improved efficiency to remain the most economically viable energy solutions. In particular, natural gas, which burns 50 percent cleaner than coal, will play a key role in the world's energy future. It is plentiful, affordable and accessible in North America and around the globe.

We are well positioned to help meet this demand with a diverse asset portfolio that includes world-class natural gas reserves in some of North America's most prolific regions, such as the Barnett Shale, the Anadarko Basin and the Permian Basin.

While we anticipate the continued development of alternative sources of energy, it is our role to produce energy the world needs now and in the future. It is our responsibility to do it in a way that is compatible with the environment and our neighbors.

We make long-term decisions based on a rigorous, comprehensive annual analysis of the global outlook for energy, which includes the prospect of policies regulating greenhouse gas emissions. Based on this analysis, we are confident that oil and natural gas will remain the world's most affordable and accessible forms of energy for many years. This assessment is backed up by the U.S. Energy Information Administration's Energy Outlook, which indicates demand will remain strong through the span of its 25-year projection, ensuring the long-term value of Devon and our significant oil and natural gas reserves.

OG1.7b

Please explain why you have not conducted any scenario analysis and/or portfolio stress testing consistent with a low-carbon energy transition

Further Information

Page: OG2. Emissions by segment in the O&G value chain - (1 Jan 2016 - 31 Dec 2016)

OG2.1

Please indicate the consolidation basis (financial control, operational control, equity share) used to report the Scope 1 and Scope 2 emissions by segment in the O&G value chain. Further information can be provided in the text box in OG2.2

Segment	Consolidation basis for reporting Scope 1 emissions	Consolidation basis for reporting Scope 2 emissions
Exploration, production & gas processing	Operational Control	Operational Control

OG2.2

Please provide clarification for cases in which different consolidation bases have been used and the level/focus of disclosure. For example, a reporting organization whose business is solely in storage, transportation and distribution (STD) may use the text box to explain why only the STD row has been completed

Devon reports Scope 1 and 2 emissions based on operational control of assets.

OG2.3

Please provide masses of gross Scope 1 carbon dioxide and methane emissions in units of metric tonnes CO2 and CH4, respectively, for the organization's owned/controlled operations broken down by value chain segment

Segment	Gross Scope 1 carbon dioxide emissions (metric tonnes CO2)	Gross Scope 1 methane emissions (metric tonnes CH4)
Exploration, production & gas processing	6065844	

OG2.4

Please provide masses of gross Scope 2 GHG emissions in units of metric tonnes CO2e for the organization's owned/controlled operations broken down by value chain segment

Segment	Gross Scope 2 emissions (metric tonnes CO2e)	Comment
Exploration, production & gas processing	1273343	

Further Information

Page: OG3. Scope 1 emissions by emissions category - (1 Jan 2016 - 31 Dec 2016)

OG3.1

Please confirm the consolidation basis (financial control, operational control, equity share) used to report Scope 1 emissions by emissions category

Segment	Consolidation basis for reporting Scope 1 emissions by emissions category
Exploration, production & gas processing	Operational Control

OG3.2

Please provide clarification for cases in which different consolidation bases have been used to report by emissions categories (combustion, flaring, process emissions, vented emissions, fugitive emissions) in the various segments

OG3.3

Please provide masses of gross Scope 1 carbon dioxide and methane emissions released into the atmosphere in units of metric tonnes CO2 and CH4, respectively, for the whole organization broken down by emissions category

Emissions category	Gross Scope 1 carbon dioxide emissions (metric tonnes CO2)	Gross Scope 1 methane emissions (metric tonnes CH4)
Combustion	3337452	1418
Flaring	408191	885
Process emissions	0	0
Vented emissions	842	14650
Fugitive emissions	3129	43019

OG3.4

Please describe your organization's efforts to reduce flaring, including any flaring reduction targets set and/or its involvement in voluntary flaring reduction programs, if flaring is relevant to your operations

Further Information

Page: OG4. Transfers & sequestration of CO2 emissions - (1 Jan 2016 - 31 Dec 2016)

OG4.1

Is your organization involved in the transfer or sequestration of CO2?

Yes

OG4.2

Please indicate the consolidation basis (financial control, operational control, equity share) used to report transfers and sequestration of CO2 emissions

Activity	Consolidation basis
Transfers	Financial Control
Sequestration of CO2 emissions	Operational Control

OG4.3

Please provide clarification for cases in which different consolidation bases have been used (e.g. for a given activity, capture, injection or storage pathway)

OG4.4

Using the units of metric tonnes of CO2, please provide gross masses of CO2 transferred in and out of the reporting organization (as defined by the consolidation basis). Please note that questions of ownership of the CO2 are addressed in OG4.6

Transfer direction	CO2 transferred – Reporting year
CO2 transferred in	536
CO2 transferred out	

OG4.5

Please provide clarification on whether any oil reservoirs and/or sequestration system (geological or oceanic) have been included within the organizational boundary of the reporting organization. Provide details, including degrees to which reservoirs are shared with other entities

There are no operators other than Devon in the vicinity of the injection project.

OG4.6

Please explain who (e.g. the reporting organization) owns the transferred emissions and what potential liabilities are attached. In the case of sequestered emissions, please clarify whether the reporting organization or one or more third parties owns the sequestered emissions and who has potential liability for them

Devon Energy owns the emissions injected into the system for the purposes of enhanced oil recovery.

OG4.7

Please provide masses in metric tonnes of gross CO2 captured for purposes of carbon capture and sequestration (CCS) during the reporting year according to capture pathway. For each pathway, please provide a breakdown of the percentage of the gross captured CO2 that was transferred into the reporting organization and the percentage that was transferred out of the organization (to be stored)

Capture pathway in CCS	Captured CO2 (metric tonnes CO2)	Percentage transferred in	Percentage transferred out

OG4.8

Please provide masses in metric tonnes of gross CO2 injected and stored for purposes of CCS during the reporting year according to injection and storage pathway

Injection and storage pathway	Injected CO2 (metric tonnes CO2)	Percentage of injected CO2 intended for long-term (>100 year) storage	Year in which injection began	Cumulative CO2 injected and stored (metric tonnes CO2)
CO2 used for enhanced oil recovery (EOR) or enhanced gas recovery (EGR)	536	0%	2008	5057

OG4.9

Please provide details of risk management performed by the reporting organization and/or third party in relation to its CCS activities. This should cover pre-operational evaluation of the storage (e.g. site characterization), operational monitoring, closure monitoring, remediation for CO2 leakage, and results of third party verification

Although this operation is an enhanced oil recovery project and not truly a carbon capture and sequestration project, Devon has taken the following measures:

•Pre-operational evaluation of the storage: The reservoir was reviewed by our reservoir department and determined to be a successful structure for CO2 injection

•Operational monitoring: pressures and temperatures are monitored continuously at the well heads and CO2 reinjection facilities

•Closure monitoring: unknown at this time

•Remediation for CO2 leakage: regular site visits and walkthroughs

•Results of third party verification: none known, however, we complete third party emissions testing on all facility engines

Further Information

Page: OG5. Emissions intensity - (1 Jan 2016 - 31 Dec 2016)

OG5.1

Please provide estimated emissions intensities (Scope 1 + Scope 2) associated with current production and operations

Year ending	Segment	Hydrocarbon/product	Emissions intensity (metric tonnes CO2e per thousand BOE)	% change from previous year	Direction of change from previous year	Reason for change
2016	Exploration, production & gas processing	Associated natural gas Natural gas condensate Natural gas liquids (NGL) Coalbed methane Shale gas Tight gas	26.69	0.79	Increase	Small increase in in the normalized intensity likely the result of a combination of data quality issues and a different asset mix following divestitures.

Year ending	Segment	Hydrocarbon/product	Emissions intensity (metric tonnes CO2e per thousand BOE)	% change from previous year	Direction of change from previous year	Reason for change
		Light oil Medium oil Heavy oil Bitumen (oil sands) Shale oil Tight oil				

OG5.2

Please clarify how each of the emissions intensities has been derived and supply information on the methodology used where this differs from information already given in answer to the methodology questions in the main information request

Further Information

Page: OG6. Development strategy - (1 Jan 2016 - 31 Dec 2016)

OG6.1

For each relevant strategic development area, please provide financial information for the reporting year

Strategic development area	Describe how this relates to your business strategy	Sales generated	EBITDA	Net assets	CAPEX	OPEX	Comment
Exploration and	Our objective is to create value for our shareholders						

Strategic development area	Describe how this relates to your business strategy	Sales generated	EBITDA	Net assets	CAPEX	OPEX	Comment
development of new hydrocarbon reserves	through the production of oil, natural gas and natural gas liquids. An essential element to this effort is exploring for and developing new energy reserves.						

OG6.2

Please describe your future capital expenditure plans for different strategic development areas

Strategic development area	CAPEX	Total return expected from CAPEX investments	Comment
Exploration and development of new hydrocarbon reserves	2000000000		In financial disclosures, we have provided capital expenditure guidance of $2 billion to $2.3 billion for 2017, which is subject to change.

OG6.3

Please describe your current expenses in research and development (R&D) and future R&D expenditure plans for different strategic development areas

Strategic development area	R&D expenses – Reporting year	R&D expenses – Future plans	Comment
Exploration and development of new hydrocarbon reserves			This information is not available.

Further Information

Page: OG7. Methane from the natural gas value chain

OG7.1

Please indicate the consolidation basis (financial control, operational control, equity share) used to prepare data to answer the questions in OG7

Segment	Consolidation basis
Exploration, production & gas processing	Operational Control

OG7.2

Please provide clarification for cases in which different consolidation bases have been used

OG7.3

Does your organization conduct leak detection and repair (LDAR), or use other methods to find and fix fugitive methane emissions?

Yes

OG7.3a

Please describe the protocol through which methane leak detection and repair, or other leak detection methods, are conducted, including predominant frequency of inspections, estimates of assets covered, and methodologies employed

Devon has established a voluntary methane leak detection and repair protocol for U.S. oil and gas production facilities. The protocol establishes the process of using infrared cameras to evaluate emissions associated with the company's operations and enhance its air emissions best management practices. Where leaks are detected they are repaired and verified. In 2016 approximately 11% of Devon's U.S. facilities received surveys.

Devon conducts leak detection and repair according to Wyoming Department of Environmental Quality and Environmental Protection Agency requirements for Wyoming assets. The surveys utilize infrared cameras to evaluate emissions. In 2016 these surveys made up approximately 3% of the total U.S. production facilities.

OG7.3b

Please explain why not and whether you plan on conducting leak detection and repair, or other methods to find and fix fugitive methane emissions

OG7.4

Please indicate the proportion of your organization's methane emissions inventory estimated using the following methodologies (+/- 5%)

Methodology	Proportion of total methane emissions estimated with methodology	What area of your operations does this answer relate to?
Direct detection and measurement		
Engineering calculations	>75%	All
Source-specific emission factors (IPCC Tier 3)	>0% to <5%	All
IPCC Tier 1 and/or Tier 2 emission factors	5% to <10%	All

OG7.5

Please use the following table to report your methane emissions rate

Year ending	Segment	Estimate total methane emitted expressed as % of natural gas production or throughput at given segment	Estimate total methane emitted expressed as % of total hydrocarbon production or throughput at given segment
2015	Exploration, production & gas processing	0.61%	0.24%

OG7.6

Does your organization participate in voluntary methane emissions reduction programs?

Yes

OG7.6a

Please describe your organization’s participation in voluntary methane emissions reduction programs

Devon has established a voluntary methane leak detection and repair protocol for U.S. oil and gas production facilities. The protocol establishes the process of using infrared cameras to evaluate emissions associated with the company’s operations and enhance its air emissions best management practices. Where leaks are detected they are repaired and verified.

OG7.7

Did you have a methane-specific emissions reduction target that was active (ongoing or reached completion) in the reporting year and/or were methane emissions incorporated into targets reported in CC3?

Yes, methane emissions were incorporated into targets reported in CC3

OG7.7a

If you have a methane-specific emissions reduction target that is not detailed as a separate target in CC3, please provide those details here, addressing all of the metrics requested in table CC3.1a or CC3.1b (for an absolute or intensity target, respectively)

OG7.7b

If methane emissions were incorporated into targets reported in CC3 (but not detailed as a separate target), please indicate which target ID(s) incorporate methane emissions, and specify the portion of those targets that is comprised of methane

Methane emissions are incorporated in the reduction targets set out in section CC3.1b. Emitted methane is converted to metric tonnes of carbon dioxide equivalent using the sources listed for global warming potentials (in section CC7.3) for the Jackfish 1, Jackfish 2 and Jackfish 3 thermal heavy oil facilities in Canada. This converted methane tonnage is then combined with the total carbon dioxide equivalent emissions to determine a single emission value for the year. Emitted gasses are converted to metric tonnes of carbon dioxide equivalent in order to provide a single common reference with which emissions can be compared. The base year, percent reductions from target year and target year are all provided in section CC3.1b.

OG7.7c

Please explain: (i) why you do not have a methane-specific emissions reduction target or do not incorporate methane into your targets reported in CC3; and (ii) forecast how your methane emissions will change over the next five years

Further Information

CDP 2017 Climate Change 2017 Information Request