

Welcome to your CDP Water Security Questionnaire 2023

W0. Introduction

W0.1

(W0.1) Give a general description of and introduction to your organization.

Our Focus

Founded in 1994, Vermilion is a publicly traded, widely held, international energy producer headquartered in Calgary, Canada. We seek to create value through the acquisition, exploration, development and optimization of producing properties in North America, Europe and Australia, regions noted for their stable, well-developed fiscal and regulatory policies related to energy exploration and development.

Our Purpose

At the core of our business is our purpose: To responsibly produce essential energy while delivering long-term value to our people, shareholders, customers, partners and communities. We believe that providing energy to the many people and businesses around the world that rely on it to meet their daily needs and sustain their quality of life is both a great privilege and a great responsibility.

Our Priorities

We prioritize health and safety, the environment, and profitability, in that order. Nothing is more important to us than the safety of the public and those who work with us, and the protection of our natural surroundings. Our energy transition strategy focuses on reducing environmental impacts of traditional oil and natural gas production while developing renewable energy projects closely related to our core competencies.

Our Operations

We focus on the exploitation of light oil and liquids-rich natural gas conventional and unconventional resource plays in North America and the exploration and development of conventional natural gas and oil opportunities in Europe and Australia.

Our Strategic Plan

Our plan includes six Matters of Importance, with strategic objectives that guide us to 2030: Extraordinary People & Culture; Health, Safety & Environment; Financial Discipline; Robust & Profitable Portfolio; Business & Operational Excellence; & Integrated Sustainability. We are a conventional producer in Europe and Australia, not employing hydraulic fracturing in our operated European assets. In North America, we use hydraulic fracturing of horizontal wells to develop some of our oil & gas reservoirs, complying with a stringent regulatory regime.

One of Vermilion’s defining strengths is our belief that sharing our success is essential to being a success. We have embedded this philosophy in our purpose to ensure that our key stakeholders – shareholders, employees, communities, governments, partners & suppliers – benefit from our achievements. This approach, based on the concepts of inclusive & sustainable growth, frames our business strategy & guides our role in the energy transition. Our energy transition plan rests on three strategic activities: focusing on efficient and responsible production of oil and natural gas; implementing technically and economically feasible options for emission reduction; and exploring new and evolving technologies and processes to identify synergistic fits for our business in both traditional and renewable energy production. This includes our geothermal projects in France, research into biogas, geothermal and hydrogen potential in Netherlands, and hydrogen potential in France and Ireland.

Because traditional fuels, particularly natural gas, will be required to support the energy transition, providing energy security, accessibility and affordability, we believe that citizens, governments & investors should turn to best-in-class oil & gas operators. In particular, natural gas has a role to play by replacing high-carbon fuels such as coal for electricity generation, which will become increasingly important as the number of electric vehicles increases. In 2022, our natural gas production in Canada alone would have enabled a third party to avoid 8,932 kT of CO2e compared to utilizing power generated by a coal-fired power plant.

In our operating regions of North America, Europe & Australia, we comply with some of the world’s most stringent health, safety, environmental & human rights regulations, including highly regulated water management areas. We voluntarily report to international frameworks such as TCFD, SASB & CDP. Environmental responsibility is only a part of our sustainability focus. Inclusive growth, which we see as ensuring that everyone has an opportunity for economic advancement, is fundamental to community wellbeing & long-term democratic stability. We are therefore committed to ensuring that we produce energy in a socially responsible manner, respecting worker rights & community engagement. This broad focus on sustainability (environmental, economic & social) is why we have integrated our sustainability strategy with the UN’s Global Goals for Sustainable Development (SDGs). The SDGs provide a common focus & language for the planet, stating a clear vision for our collective future. We recognize that our capabilities in health and safety, environmental stewardship, long-term economic growth generation, & creation of shareholder value provide us with opportunities and the responsibility to move the SDGs forward.

W-OG0.1a

(W-OG0.1a) Which business divisions in the oil & gas sector apply to your organization?

Upstream

W0.2

(W0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date
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Reporting year	January 1, 2022	December 31, 2022
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W0.3

(W0.3) Select the countries/areas in which you operate.

- Australia
- Canada
- Croatia
- France
- Germany
- Hungary
- Ireland
- Netherlands
- Slovakia
- United States of America

W0.4

(W0.4) Select the currency used for all financial information disclosed throughout your response.

- CAD

W0.5

(W0.5) Select the option that best describes the reporting boundary for companies, entities, or groups for which water impacts on your business are being reported.

- Companies, entities or groups over which operational control is exercised

W0.6

(W0.6) Within this boundary, are there any geographies, facilities, water aspects, or other exclusions from your disclosure?

- No

W0.7

(W0.7) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization.	Provide your unique identifier
Yes, a Ticker symbol	VET (TSE and NYSE)

W1. Current state

W1.1

(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Important	Neutral	<p>Reflecting our activities as an upstream oil & gas company, water is accessed within all of Vermilion's operational areas for various uses: e.g. dust control, drilling, well completion (fracturing - North America only), voidage replacement, enhanced oil recovery, etc. In all areas, water use is highly regulated and 100% of water volumes withdrawn (including purchased) and discharged are tracked and reported.</p> <p>The majority of our 2022 water withdrawals (84%) were produced water associated with conventional oil production, primarily within the Canada, France and Australia Business Units (CBU, FBU, ABU). Strict compliance with regulatory requirements related to water use is mandatory across all business units. Through proactive water management, we are able to secure water for future activities, while reducing potential risk and impact.</p> <p>We prefer to use brackish rather than freshwater in our operations; however, the use of freshwater is a practical necessity in some locations. The availability of freshwater, both now and in the future, is therefore important to our operational activities. While freshwater alternatives are available now and are expected to continue to be available based on government licensing of water supplies in our regions, there would be an economic and potentially environmental (transport) impact should we need to seek sources other than our current options.</p> <p>For indirect use in our value chain - for example,</p>

			<p>our upstream suppliers (e.g. office contractors and supplies) and downstream customers (e.g. midstream pipeline operators) - these operations are not as dependent on sources of freshwater, so we consider its importance to be neutral, with a lack of availability unlikely to materially impact their ability to provide services or contracts to us. (Note that we have included the activities of contractors in areas such as drilling and completions in our direct use category, as they more accurately reflect activities under our direct control).</p>
<p>Sufficient amounts of recycled, brackish and/or produced water available for use</p>	<p>Important</p>	<p>Neutral</p>	<p>Reflecting our activities as an upstream oil & gas company, water is accessed within all of Vermilion's operational areas for various uses: e.g. dust control, drilling, well completion (fracturing - North America only), voidage replacement, enhanced oil recovery, etc. In all areas, water use is highly regulated and 100% of water volumes withdrawn (including purchased) and discharged are tracked and reported.</p> <p>The majority of our 2022 water withdrawals (84%) were produced water associated with conventional oil production, primarily within the Canada, France and Australia Business Units (CBU, FBU, ABU). Strict compliance with regulatory requirements related to water use is mandatory across all business units. Through proactive water management, we are able to secure water for future activities, while reducing potential risk and impact.</p> <p>We prefer to use brackish rather than freshwater in our operations; however, the use of freshwater is a practical necessity in some locations. The availability of freshwater, both now and in the future, is therefore important to our operational activities. While freshwater alternatives are available now and are expected to continue to be available based on government licensing of water supplies in our regions, there would be an economic and potentially environmental (transport) impact should we need to seek sources other than our current options.</p>

			<p>For indirect use in our value chain - for example, our upstream suppliers (e.g. office contractors and supplies) and downstream customers (e.g. midstream pipeline operators) - these operations are not as dependent on sources of freshwater, so we consider its importance to be neutral, with a lack of availability unlikely to materially impact their ability to provide services or contracts to us. (Note that we have included the activities of contractors in areas such as drilling and completions in our direct use category, as they more accurately reflect activities under our direct control).</p>
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W1.2

(W1.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

	% of sites/facilities/operations	Frequency of measurement	Method of measurement	Please explain
Water withdrawals – total volumes	100%			<p>Water is accessed within all of Vermilion’s operational areas for various uses (dust control, drilling, well completion (fracturing - North America only), voidage replacement, enhanced oil recovery, etc.). In all areas, water use is highly regulated and 100% of water volumes withdrawn and discharged are tracked for internal and external accounting, management and reporting purposes. The majority of our 2022 water</p>

				<p>withdrawals (52,838 / 62,602 = 84%) were produced water associated with conventional oil production, primarily within the CBU, FBU and ABU.</p> <p>Adherence to regulatory requirements and industry best practices related to water use is monitored across all BUs. All water volumes regardless of source are measured at the point of withdrawal and discharge (including deep well disposal) using a combination of meters and volumetric calculations. The data is tracked and analyzed to support regulatory reporting and internal governance and sustainability initiatives.</p>
<p>Water withdrawals – volumes by source</p>	<p>100%</p>			<p>Water is accessed within all of Vermilion’s operational areas for various uses (dust control, drilling, well completion (fracturing - North America only), voidage replacement, enhanced oil</p>

			<p>recovery, etc.). In all areas, water use is highly regulated and 100% of water volumes withdrawn and discharged are tracked for internal and external accounting, management and reporting purposes. The majority of our 2022 water withdrawals (52,838 / 62,602 = 84%) were produced water associated with conventional oil production, primarily within the CBU, FBU and ABU.</p> <p>Adherence to regulatory requirements and industry best practices related to water use is monitored across all BUs. All water volumes regardless of source are measured at the point of withdrawal and discharge (including deep well disposal) using a combination of meters and volumetric calculations. The data is tracked and analyzed to support regulatory reporting and internal governance and</p>
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				sustainability initiatives.
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	100%			<p>Organizationally, the majority of Vermilion's 2022 water withdrawals (52,838 / 62,602 = 84%) were produced water associated with conventional oil production, most of which occurs within the CBU (Saskatchewan and Alberta), FBU and ABU. The tracking and reporting of produced water withdrawals and discharges (reinjection) is a regulatory requirement and is undertaken in accordance with defined accounting practices. Produced water withdrawal volumes are generally determined using metering systems and/or accounting calculations associated with capturing hydrocarbon production volumes. The withdrawal data is collected in our production accounting systems which facilitate the associated regulatory reporting as well as</p>

				financial accounting processes.
Water withdrawals quality	76-99			<p>Approximately 98% (61,468/62,602 = 98.2%) of Vermilion's 2022 water withdrawals were assessed for water quality parameters. Produced water is assessed to determine compatibility and treatment requirements with respect to future re-injection and to assess corrosivity in the context of asset integrity and management programs (e.g. pipelines). Freshwater used for drilling purposes (e.g., drilling fluid systems) is also assessed to ensure compatibility with the drilling formations and to determine additive requirements.</p> <p>Depending on the circumstances, the water quality assessment may include routine chemistry parameters (pH, conductivity, major cations/anions, etc.), total and/or dissolved metals, hydrogen sulphide,</p>

				<p>and biological parameters iron reducing and acid producing bacteria. The majority of the analyses are completed at accredited laboratories. Some parameters (e.g. temperature) may also be monitored in the field.</p>
Water discharges – total volumes	100%			<p>As an organization, the majority of Vermilion’s 2022 water withdrawals (52,838 / 62,602 = 84%) were produced water associated with conventional oil production. The majority of this volume (44,276 / 52,838 = 84%) was reinjected into the oil producing formations for voidage replacement or disposed via deep well injection. Lifecycle tracking of produced water is a regulatory and corporate obligation with defined accounting and reporting requirements.</p> <p>In Vermilion’s offshore Australian operations, discharge occurs to seawater in accordance with a</p>

				<p>government authorization that mandates water quality and quantity, as well as monitoring and reporting requirements. This volume (representing $17,500 / 62,602 = 28\%$ of our 2022 discharge) was metered as part of the discharge process. The remaining approximately 1.2% of our 2022 water discharge was to third-party facilities and was metered or quantified using volumetric accounting calculations.</p>
Water discharges – volumes by destination	100%			<p>As an organization, the majority of Vermilion’s 2022 water withdrawals ($52,838 / 62,602 = 84\%$) were produced water associated with conventional oil production. The majority of this volume ($44,276 / 52,838 = 84\%$) was reinjected into the oil producing formations for voidage replacement or disposed via deep well injection. Lifecycle tracking of produced water is a regulatory and corporate obligation</p>

				<p>with defined accounting and reporting requirements.</p> <p>In Vermilion's offshore Australian operations, discharge occurs to seawater in accordance with a government authorization that mandates water quality and quantity, as well as monitoring and reporting requirements. This volume (representing $17,500 / 62,602 = 28\%$ of our 2022 discharge) was metered as part of the discharge process. The remaining approximately 1.2% of our 2022 water discharge was to third-party facilities and was metered or quantified using volumetric accounting calculations.</p>
Water discharges – volumes by treatment method	100%			<p>As an organization, the majority of Vermilion's 2022 water withdrawals (~84%) were produced water associated with conventional oil production. The majority of this volume (~84%) was reinjected into the oil</p>

			<p>producing formations for voidage replacement or disposed via deep well injection, with primary treatment.</p> <p>In our offshore Australian operations, discharge occurs to seawater in accordance with a government authorization that mandates water quality and quantity, as well as monitoring and reporting requirements. This volume (28% of our 2022 discharge) is metered as part of the discharge process. Approximately 50% of this volume (8,784.6/17,499.6 = 50.2%) is cooling water that is discharged without treatment. The remaining (primarily produced) water receives primary treatment prior to discharge.</p> <p>The remaining approximately 1.2% of our 2022 water discharge was to third-party facilities without prior treatment and was metered or quantified using volumetric</p>
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				accounting calculations.
Water discharge quality – by standard effluent parameters	76-99			<p>Approximately 98% of Vermilion's 2021 water withdrawals were monitored for water quality prior to discharge as the chemical composition and compatibility of the water must be determined for environmental and operational purposes (e.g., reinjection, hydraulic fracturing, drilling fluid systems). Some parameters (e.g. temperature) may be measured continuously while other parameters are analyzed at accredited laboratories (e.g., routine chemistry, metals, biological parameters, H2S, etc.).</p> <p>In Vermilion's offshore Australian operations, discharge to seawater (~28% of our total 2021 water discharge) occurs in accordance with a government authorization that defines water quality, monitoring and reporting requirements. A detailed impact assessment of</p>

				various components (e.g. residual hydrocarbons, radionuclides, etc.) on the marine environment is part of the regulatory approval process.
Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)				
Water discharge quality – temperature	76-99			<p>Approximately 98% of Vermilion’s 2022 water withdrawals were monitored for water quality prior to discharge as the chemical composition and compatibility of the water must be determined for operational purposes. Some parameters (e.g. temperature) may be measured continuously while others are analyzed at accredited laboratories (e.g., routine chemistry, metals, biological parameters, H2S, etc.).</p> <p>Water temperature is generally not a key operating parameter in the context of deep well injection. In</p>

				<p>Vermilion’s offshore Australian operations, discharge to seawater (~28% of our 2022 water discharge) occurs in accordance with a government authorization that defines water quality monitoring and reporting requirements.</p> <p>Vermilion meets the assessment criteria for temperature set in the Environmental Health and Safety Guidelines for Offshore Oil and Gas Development (IFC, 2007) of a temperature increase of no more than 3°C within 100 m of the discharge point.</p>
Water consumption – total volume	100%			<p>As described previously, lifecycle tracking of water withdrawals and discharges is undertaken within all operational areas in accordance with regulatory requirements and industry best practices. Annual water consumption is calculated by subtracting water discharge volumes from water withdrawal volumes, both of which are</p>

				monitored and measured as per previous answers. As a conventional oil and gas producer, Vermilion's operations do not typically involve the consumption of water (ie. water withdrawals and discharges are generally in balance). Accordingly, in 2022 Vermilion's net water consumption was zero.
Water recycled/reused	Less than 1%			At this time, water recycling/reuse is not a material component of Vermilion's operations but may become more relevant in the future as opportunities for water use reduction and conservation continue to be evaluated as an organizational priority.
The provision of fully-functioning, safely managed WASH services to all workers	100%			Across the operational areas, Vermilion provides WASH services to ensure that the quality and quantity of water provided meets the safety standards for all workers and the communities where we operate. All drinking water associated with Vermilion's

				operations is either supplied via municipal sources or from private suppliers.
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W1.2b

(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, how do they compare to the previous reporting year, and how are they forecasted to change?

	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Five-year forecast	Primary reason for forecast	Please explain
Total withdrawals	62,602	About the same				In all operational jurisdictions, water use reporting is a regulatory requirement and 100% of water volumes withdrawn, produced, and purchased are measured, monitored, and tracked internally. All water volumes regardless of source are tracked accordingly, e.g., using meters at extraction points or by volumetric calculations for trucked water. The total volume of Vermilion's water withdrawal

						<p>is an aggregate of volumes tracked (i.e., measured or calculated) across all the operational jurisdictions.</p> <p>This is our fourth year of compiling data under the CDP framework. Water-related measurements, monitoring and reporting have been undertaken by Vermilion historically in other contexts (e.g. regulatory and/or sustainability reporting). With consideration to the more recent CDP and historical data, we have applied the following thresholds when evaluating year-over-year changes in the context of this question: About the Same < 10%; Higher/Lower 10 to 25%; Much Higher/Lower > 25%.</p> <p>Our total 2022 withdrawal represents an</p>
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						<p>approximately (1-62,602/65,605) = 4.6%] decrease in relation to the 2021 withdrawal volume. Consistent with prior reporting, it is expected that water volumes in this category will fluctuate from year to year based on activity and production levels.</p>
Total discharges	62,602	About the same				<p>As an organization, the majority of Vermilion's 2022 water withdrawals (84%) were produced water associated with conventional oil production. The majority of this volume (44,276/52,838 = 84% of the total discharge) was reinjected into the oil producing formations for voidage replacement or disposed via deep well injection. Lifecycle tracking of produced water is a regulatory obligation with defined</p>

						<p>accounting and reporting requirements.</p> <p>In Vermilion's offshore Australian operations, discharge to seawater occurs in accordance with a government authorization that defines water quality, monitoring and reporting requirements. This volume (~28% of our total water discharge) was metered as part of the discharge process. The remaining approximately 1.2% of 2022 water discharge was to third-party facilities or deep well disposal and is metered or quantified using volumetric calculations. The total volume of Vermilion's water discharges is an aggregate of volumes tracked (i.e., measured or calculated) across all of our operational</p>
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						<p>jurisdictions.</p> <p>This is our fourth year of compiling data under the CDP framework. Water-related measurements, monitoring and reporting have been undertaken by Vermilion historically in other contexts (e.g. regulatory and/or sustainability reporting). With consideration to the more recent CDP and historical data, we have applied the following thresholds when evaluating year-over-year changes in the context of this question: About the Same < 10%; Higher/Lower 10 to 25%; Much Higher/Lower > 25%.</p> <p>Our total 2022 discharge represents an approximately (62,602-65,605)/65,605 = 4.6% decrease in relation to the 2021 volume. Consistent with</p>
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						prior reporting, it is expected that water volumes in this category will fluctuate from year to year based on activity and production levels.
Total consumption	0	About the same				Lifecycle tracking of water withdrawals and discharges is undertaken within all operational areas in accordance with regulatory requirements and industry best practices. Annual water consumption is calculated by subtracting water discharge volumes from water withdrawal volumes, both of which are monitored and measured as per previous answers. As a conventional oil and gas producer, Vermilion's operations do not typically involve the consumption of water (i.e. water withdrawals and discharges are generally in

						balance). Accordingly, Vermilion's net water consumption in 2022 was zero.
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W-OG1.2c

(W-OG1.2c) In your oil & gas sector operations, what are the total volumes of water withdrawn, discharged, and consumed (by business division), how do they compare to the previous reporting year, and how are they forecasted to change?

	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Five- year forecast	Primary reason for forecast	Please explain
Total withdrawals - upstream	62,602	About the same				In all operational jurisdictions, water use reporting is a regulatory requirement and 100% of water volumes withdrawn, produced, and purchased are measured, monitored, and tracked internally. All water volumes regardless of source are tracked accordingly, e.g., using meters at extraction points or by volumetric calculations for trucked water. The total volume of Vermilion's

						<p>water withdrawal is an aggregate of volumes tracked (i.e., measured or calculated) across all the operational jurisdictions.</p> <p>This is our fourth year of compiling data under the CDP framework. Water-related measurements, monitoring and reporting have been undertaken by Vermilion historically in other contexts (e.g. regulatory and/or sustainability reporting). With consideration to the more recent CDP and historical data, we have applied the following thresholds when evaluating year-over-year changes in the context of this question: About the Same < 10%; Higher/Lower 10 to 25%; Much Higher/Lower > 25%.</p> <p>Our total 2022 upstream withdrawal represents an</p>
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						<p>approximately (62,602-65,605)/65,605 = 4.6% decrease in relation to the 2021 withdrawal volume. Consistent with prior reporting, it is expected that water volumes in this category will fluctuate from year to year based on activity and production levels.</p>
Total discharges – upstream	62,516.3	About the same				<p>As an organization, the majority of Vermilion's water withdrawals (84%) are produced water associated with conventional oil production. The majority of this volume [(44,276/52,838) = 84% of our total discharge] is reinjected into the oil producing formations for voidage replacement or disposed via deep well injection. Lifecycle tracking of produced water is a regulatory obligation with defined</p>

						<p>accounting and reporting requirements.</p> <p>In Vermilion's offshore Australian operations, discharge to seawater occurs in accordance with a government authorization that defines water quality, monitoring and reporting requirements. This volume (~28% of our total water discharge) is metered as part of the discharge process. The remaining approximately 1.2% of Vermilion's total water discharge is to third-party facilities and is metered or quantified using volumetric calculations. The total volume of Vermilion's water discharges is an aggregate of volumes tracked (i.e., measured or calculated) across all the operational jurisdictions.</p>
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					<p>This is our fourth year of compiling data under the CDP framework. Water-related measurements, monitoring and reporting have been undertaken by Vermilion historically in other contexts (e.g. regulatory and/or sustainability reporting). With consideration to the more recent CDP and historical data, we have applied the following thresholds when evaluating year-over-year changes in the context of this question: About the Same < 10%; Higher/Lower 10 to 25%; Much Higher/Lower > 25%.</p> <p>Our total 2022 upstream discharge represents an approximately (62,602-65,605) /65,605= 4.6% decrease in relation to the 2021 discharge volume. Consistent with</p>
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						<p>prior reporting, it is expected that water volumes in this category will fluctuate from year to year based on activity and production levels.</p>
<p>Total consumption – upstream</p>	<p>0</p>	<p>About the same</p>				<p>Lifecycle tracking of water withdrawals and discharges is undertaken within all operational areas in accordance with regulatory requirements and industry best practices. Annual water consumption is calculated by subtracting water discharge volumes from water withdrawal volumes, both of which are monitored and measured as per previous answers. As a conventional oil and gas producer, Vermilion's operations do not typically involve the consumption of water (i.e. water withdrawals and discharges are generally in balance).</p>

						Accordingly, Vermilion's net water consumption in 2022 was zero.
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W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress, provide the proportion, how it compares with the previous reporting year, and how it is forecasted to change.

	Withdrawals are from areas with water stress	Identification tool	Please explain
Row 1	No	Other, please specify Vermilion considers several factors when evaluating water stress, including: regulatory consultation, regional risk or stress-based allocation requirements, and landowner engagement in relation to current water use practices and water availability.	<p>As an organization, Vermilion recognizes that water is a shared resource and that our activities have implication beyond our direct operations. We also recognize that in general, our water privileges fall secondary to primary human and ecological needs, particularly in circumstances of water scarcity.</p> <p>Although freshwater use represents a relatively small percentage of our annual water withdrawal, water stewardship is a core element of our sustainability program and has been identified by our Executive Committee and Board as such within our sustainability strategy. Initiatives related to the identification of water-related risk and consequence, and related opportunities for the advancement of organizational or region-specific water management initiatives, is a prioritized objective within all business units. Several factors are considered when evaluating water stress within our operating areas, both in terms of water availability and the risk our operations may present to sensitive or region-critical water resources. In general, regulatory oversight of water use in all of our operated areas is well developed with water allocation or diversion licensing</p>

			<p>requirements that consider other water users and the capacity of the resource (surface and groundwater) to support the intended withdrawals.</p> <p>Regulatory authorizations for groundwater withdrawals typically involve an assessment of aquifer yield as part of the licensing process. Longer-term (i.e. multi-year) diversion licenses typically include a requirement for ongoing aquifer monitoring to ensure that the withdrawal, or collective withdrawals of multiple users, is not adversely impacting the reservoir with time. Authorizations for surface water withdrawals typically set limits with respect to maximum allowable drawdown and include additional provisions (e.g. inlet screening, access requirements, etc.) to mitigate risk to aquatic organisms and habitat. Limits with respect to the permitted withdrawal volumes and recovery rate are typically stipulated in the withdrawal authorizations and are enforceable under regulation.</p> <p>In addition to working within the existing regulatory frameworks in our operating areas and engaging with local, field-level environmental and fisheries officers with respect to water use and availability, Vermilion’s surface land and community relations groups also actively engage with other stakeholders with respect to water related matters. Landowner consultation is an integral part of all drilling programs and includes dialogue with respect to current water uses and vulnerabilities. Where practical, and particularly in agricultural areas, landowners are often engaged in the provision of freshwater to limit risk and facilitate mutual benefit. Open attendance (“townhall”) events are also routinely hosted by Vermilion’s operations and community relations teams which provide a forum for stakeholder discussion and</p>
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			<p>communication of water-related concerns. Vermilion’s field operations and joint-venture teams are also in regular communication with other industry operators, either through formal industry associations or ad hoc engagements, which allows for a direct sharing of water-related activities and concerns, as well as identification of collaborative opportunities. As part of our corporate risk evaluation process, which prioritizes water, we recognize that several publicly available water stress assessment tools, including the Water Resources Institute (WRI) Aqueduct tool and World Wildlife Fund (WWF) Water Risk Filter, would identify some of our operating areas as water stressed. However, based on our field-level observations and monitoring programs, regulatory communications, and interactions with other industrial, agricultural and domestic water users, none of our operating areas are at this time deemed to be under water stress in the context of our operations.</p> <p>Should our ongoing monitoring and stakeholder engagement activities indicate that an acute or chronic water stress condition is evolving in any of our operating areas, the risk presented to, and by, our operations would be further assessed and appropriate mitigative measures implemented. Depending on the area-specific circumstances, this could include sourcing (and hauling) water from outside of the water stressed area, switching to drilling fluid systems that do not require freshwater, implementation of additional risk management measures to monitor and safeguard vulnerable water resources (surface and groundwater) and, potentially, short or long-term suspension of operations within the water stressed areas.</p>
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W1.2h

(W1.2h) Provide total water withdrawal data by source.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	312	Much higher		<p>Approximately 0.5% of our 2022 water withdrawal came from fresh surface water, primarily within the CBU. This is relevant because the water is used for well drilling and development, and is part of our efforts toward increased water efficiency and the protection water bodies.</p> <p>This is our fourth year compiling data under the CDP framework. Water-related measurements, monitoring and reporting have been undertaken by Vermilion historically in other contexts (e.g. regulatory and/or sustainability reporting). With consideration to</p>

					<p>the more recent CDP and historical data, we have applied the following thresholds when evaluating year-over-year changes in the context of this question: About the Same < 10%; Higher/Lower 10 to 25%; Much Higher/Lower > 25%.</p> <p>Our 2022 fresh surface water withdrawal represents a $(312.1 - 124.4)/124.4 = 150\%$ increase in relation to the 2021 volume.</p>
Brackish surface water/Seawater	Relevant	8,991.5	About the same		<p>Approximately 14.4% of our 2022 water withdrawal came from seawater as part of offshore operations in our Australia Business Unit. The majority of this water (98%) is cooling water that is utilized in a direct, flow-through system. The remainder of the water is used for domestic or</p>

					<p>maintenance purposes on the offshore platform.</p> <p>This is our fourth year of compiling data under the CDP framework. Water-related measurements, monitoring and reporting have been undertaken by Vermilion historically in other contexts (e.g. regulatory and/or sustainability reporting). With consideration to the more recent CDP and historical data, we have applied the following thresholds when evaluating year-over-year changes in the context of this question: About the Same < 10%; Higher/Lower 10 to 25%; Much Higher/Lower > 25%.</p> <p>Our 2022 seawater withdrawal represents a $(8992 - 8,949)/8,949 = 0.5\%$ increase in relation to the</p>
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					2021 withdrawal volume.
Groundwater – renewable	Relevant	424.5	About the same		<p>Approximately 0.7% of our total 2022 water withdrawal came from renewable groundwater sources. This is relevant because it is used operationally for well drilling, hydraulic fracturing (North America only) and enhanced oil recovery (waterflood), and is part of our efforts toward increased water efficiency and the protection of water bodies.</p> <p>This is our fourth year of compiling data under the CDP framework. Water-related measurements, monitoring and reporting have been undertaken by Vermilion historically in other contexts (e.g. regulatory and/or sustainability reporting). With consideration to the more recent CDP and</p>

					<p>historical data, we have applied the following thresholds when evaluating year-over-year changes in the context of this question: About the Same < 10%; Higher/Lower 10 to 25%; Much Higher/Lower > 25%. Much Higher/Lower: > 25%.</p> <p>Our 2022 renewable groundwater withdrawal represents a $(424.5 - 436.4) / 436.4 = 2.7\%$ decrease in relation to the 2021 withdrawal volume.</p>
Groundwater – non-renewable	Relevant	0	Much lower		<p>Approximately 0% of our total 2022 withdrawal was non-renewable groundwater. This is relevant because it is generally used operationally for enhanced oil recovery or well completions (North America), and is part of our efforts toward increased water</p>

				<p>efficiency and the protection of water bodies.</p> <p>This is our fourth year of compiling data under the CDP framework. Water-related measurements, monitoring and reporting have been undertaken by Vermilion historically in other contexts (e.g. regulatory and/or sustainability reporting). With consideration to the more recent CDP and historical data, we have applied the following thresholds when evaluating year-over-year changes in the context of this question: About the Same < 10%; Higher/Lower 10 to 25%; Much Higher/Lower > 25%.</p> <p>Our 2022 non-renewable groundwater withdrawal represents a $(0 - 50.5)/50.5 = 100\%$ decrease in relation to the</p>
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					2021 withdrawal volume. The non-renewable groundwater volumes in both years were relatively small.
Produced/Entrained water	Relevant	52,838	About the same		<p>Approximately 84% of our 2022 water withdrawal was produced water. The tracking and reporting of produced water withdrawals and discharges is a regulatory requirement & is undertaken in accordance with defined accounting practices. The withdrawal data is collected in our production accounting systems which facilitate regulatory reporting as well as financial accounting processes.</p> <p>This is our fourth year of compiling data under the CDP framework. Water-related measurements, monitoring and reporting have been undertaken</p>

					<p>by Vermilion historically in other contexts (e.g. regulatory and/or sustainability reporting). With consideration to the more recent CDP and historical data, we have applied the following thresholds when evaluating year-over-year changes in the context of this question: About the Same < 10%; Higher/Lower 10 to 25%; Much Higher/Lower > 25%.</p> <p>Our 2022 produced water withdrawal represents a $(52,838 - 56,016) / 56,016 = 5.7\%$ decrease in relation to the 2021 volume.</p>
Third party sources	Relevant	35.2	Higher		<p>Approximately 0.06% of Vermilion's total 2022 water withdrawal came from public or private third party sources. These withdrawal volumes were typically used for</p>

				<p>domestic or wash water purposes, and are part of our efforts toward increased water efficiency and the protection of water bodies. The third party water volumes were generally metered or measured at source.</p> <p>This is our fourth year of compiling data under the CDP framework. Water-related measurements, monitoring and reporting have been undertaken by Vermilion historically in other contexts (e.g. regulatory and/or sustainability reporting). With consideration to the more recent CDP and historical data, we have applied the following thresholds when evaluating year-over-year changes in the context of this question: About the Same < 10%; Higher/Lower 10 to 25%; Much Higher/Lower ></p>
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					<p>25%.</p> <p>Our 2022 third party water withdrawal represents a $(35.2 - 29.3)/29.3$ = 20.1% increase in relation to the 2021 withdrawal volume.</p>
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W1.2i

(W1.2i) Provide total water discharge data by destination.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Please explain
Fresh surface water	Relevant	0.2	About the same		<p>Discharge of water to fresh surface water bodies is generally prohibited in the regulatory jurisdictions in which we operate and is contrary to our standard organizational practices.</p> <p>In 2022, we had a single discharge to fresh surface water. The discharge was related to a non-standard operating condition and did not result in adverse impact to the receiving environment.</p>

					<p>Consistent with prior reporting years, there were no routine discharges to surface water in 2022 and no such discharges are anticipated in the future. This relevant because it is part of our efforts toward water efficiency and protecting water bodies.</p>
Brackish surface water/seawater	Relevant	17,500	About the same		<p>In Vermilion's offshore Australian operations, discharge occurs to seawater in accordance with a government authorization that mandates water quality and quantity, as well as monitoring and reporting requirements. This volume (~28% of our total discharge) is metered as part of the discharge process.</p> <p>This is our fourth year of compiling data under the CDP framework. Water-related measurements, monitoring and reporting have been undertaken by Vermilion historically in other contexts (e.g. regulatory and/or sustainability reporting). With</p>

				<p>consideration to the more recent CDP and historical data, we have applied the following thresholds when evaluating year-over-year changes in the context of this question: About the Same < 10%; Higher/Lower 10 to 25%; Much Higher/Lower > 25%.</p> <p>Our 2022 seawater discharge represents a $(17,500 - 18,912)/18,912 = 7.5\%$ decrease in relation to the 2021 discharge volume.</p>
Groundwater	Relevant	44,341	About the same	<p>Approximately 71% ($44,276/62,602 = 70.7\%$) of our total 2022 water discharge was reinjected into deep, non-renewable, saline aquifers for voidage replacement to maintain formation pressure, or disposed via similar deep well injection. The reinjection and disposal volumes are recorded and tracked for internal and external water accounting and reporting purposes.</p> <p>This is our fourth year of compiling data under the CDP</p>

				<p>framework. Water-related measurements, monitoring and reporting have been undertaken by Vermilion historically in other contexts (e.g. regulatory and/or sustainability reporting). With consideration to the more recent CDP and historical data, we have applied the following thresholds when evaluating year-over-year changes in the context of this question: About the Same < 10%; Higher/Lower 10 to 25%; Much Higher/Lower > 25%.</p> <p>Our 2022 groundwater discharge represents a (44,341 - 46,048)/46,048 = 3.7% decrease in relation to the 2020 discharge volume.</p>
Third-party destinations	Relevant	759	Higher	<p>Approximately 1.2% of Vermilion's 2022 water discharge volume was to third party waste water treatment and/or disposal facilities. This is relevant because it is part of our efforts toward increased water</p>

				<p>efficiency and the protection of water bodies.</p> <p>This is our fourth year of compiling data under the CDP framework. Water-related measurements, monitoring and reporting have been undertaken by Vermilion historically in other contexts (e.g. regulatory and/or sustainability reporting). With consideration to the more recent CDP and historical data, we have applied the following thresholds when evaluating year-over-year changes in the context of this question: About the Same < 10%; Higher/Lower 10 to 25%; Much Higher/Lower > 25%.</p> <p>Our 2022 third-party discharge represents a $(759.0 - 643.3)/643.3 = 18\%$ increase in relation to the 2021 discharge volume.</p>
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W1.2j

(W1.2j) Within your direct operations, indicate the highest level(s) to which you treat your discharge.

	Relevance of treatment level to discharge	Volume (megaliters/year)	Comparison of treated volume with previous reporting year	Primary reason for comparison with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Not relevant					
Secondary treatment	Not relevant					
Primary treatment only	Relevant	52,991	About the same		81-90	Our 2022 primary treatment volume represents an approximately (52,991 - 56,191)/56,191 = 5.7% decrease in relation to the 2021 treatment volume.
Discharge to the natural environment without treatment	Relevant	8,850	About the same		11-20	Our 2022 discharge to the natural environment without treatment volume represents an approximately (8,850 - 8,769)/8,769 = 0.9% increase in relation to

						the 2021 volume.
Discharge to a third party without treatment	Relevant	762	Higher		1-10	Our 2022 discharge to a third-party volume represents an approximately $(762 - 645)/645 = 18\%$ increase in relation to the 2021 volume.
Other	Not relevant					

W1.3

(W1.3) Provide a figure for your organization’s total water withdrawal efficiency.

	Revenue	Total water withdrawal volume (megaliters)	Total water withdrawal efficiency	Anticipated forward trend
Row 1	3,476,394,000	62,602	55,531.6763042714	<p>Our 2022 water withdrawal efficiency represents an approximately $(55,532 - 31,701)/31,701 = 75\%$ increase in relation to the corresponding 2021 value.</p> <p>Although directly influenced by market factors that are outside of our control (i.e. global commodity prices), we feel that our continued focus on responsible water management and our strategic development plans, which emphasize low water-intensity natural gas, will generate ongoing improvements in our withdrawal efficiency.</p>

W-OG1.3

(W-OG1.3) Do you calculate water intensity for your activities associated with the oil & gas sector?

Yes

W-OG1.3a

(W-OG1.3a) Provide water intensity information associated with your activities in the oil & gas sector.

Business division

Upstream

Water intensity value (m3/denominator)

0.02

Numerator: water aspect

Freshwater withdrawals

Denominator

Barrel of oil equivalent

Comparison with previous reporting year

About the same

Please explain

As described previously, water stewardship is a core element of our sustainability program and has been identified by our Executive Committee as such within our sustainability strategy. As part of our corporate risk management process, water-related risks, including renewable (fresh) and non-renewable water dependencies, are analyzed on a district level to help mitigate risk exposure and identify opportunities for organizational or region-specific water management initiatives, which is a prioritized objective within all business units.

As an organization, freshwater (i.e. renewable groundwater, surface water and third-party potable sources) represented approximately 1.2% of our total 2022 withdrawal ($772/62,602 = 1.2\%$).

This is our fourth year of compiling data under the CDP framework. Water-related measurements, monitoring and reporting have been undertaken by Vermilion historically in other contexts (e.g. regulatory and/or sustainability reporting). With consideration to the more recent CDP data and historical data, Vermilion has applied the following thresholds when evaluating year-over-year changes in the context of this question:

- About the Same: < 10%

- Higher/Lower: 10 to 25%
- Much Higher/Lower: > 25%.

Our 2022 freshwater withdrawal intensity represents a $(0.022 - 0.016)/0.016 = 37.5\%$ increase in relation to the 2021 value. The increase was primarily associated with our Canadian drilling activities.

Business division

Upstream

Water intensity value (m3/denominator)

1.76

Numerator: water aspect

Total water withdrawals

Denominator

Barrel of oil equivalent

Comparison with previous reporting year

About the same

Please explain

As described previously, water stewardship is a core element of our sustainability program and has been identified by our Executive Committee as such within our sustainability strategy. As part of our corporate risk management process, water-related risks, including renewable (fresh) and non-renewable water dependencies, are analyzed on a district level to help mitigate risk exposure and identify opportunities for organizational or region-specific water management initiatives, which is a prioritized objective within all business units. Approximately 84% of our total water withdrawal in 2022 was produced water ($52,838/62,602 = 84\%$).

This is our fourth year of compiling data under the CDP framework. Water-related measurements, monitoring and reporting have been undertaken by Vermilion historically in other contexts (e.g. regulatory and/or sustainability reporting). With consideration to the more recent CDP data and historical data, Vermilion has applied the following thresholds when evaluating year-over-year changes in the context of this question:

- About the Same: < 10%
- Higher/Lower: 10 to 25%
- Much Higher/Lower: > 25%.

Our 2022 total withdrawal intensity represents a $(1.757 - 1.780)/1.780 = 1.3\%$ decrease in relation to the 2021 value.

Business division

Upstream

Water intensity value (m3/denominator)

0

Numerator: water aspect

Freshwater consumption

Denominator

Barrel of oil equivalent

Comparison with previous reporting year

About the same

Please explain

Vermilion's freshwater consumption (withdrawals - discharges) was zero in 2022.

Business division

Upstream

Water intensity value (m3/denominator)

0

Numerator: water aspect

Total water consumption

Denominator

Barrel of oil equivalent

Comparison with previous reporting year

About the same

Please explain

Vermilion's total water consumption (withdrawals - discharges) was zero in 2022.

W1.4

(W1.4) Do any of your products contain substances classified as hazardous by a regulatory authority?

Products contain hazardous substances	
Row 1	Yes

W1.4a

(W1.4a) What percentage of your company's revenue is associated with products containing substances classified as hazardous by a regulatory authority?

Regulatory classification of hazardous substances	% of revenue associated with products containing substances in this list	Please explain
List of substances (Canadian Environmental Protection Act)	More than 80%	Vermilion is a producer of crude oil, natural gas and natural gas liquids. All of our products contain constituents that would be classified as hazardous in one context or another.

W1.5

(W1.5) Do you engage with your value chain on water-related issues?

	Engagement
Suppliers	Yes
Other value chain partners (e.g., customers)	Yes

W1.5a

(W1.5a) Do you assess your suppliers according to their impact on water security?

Row 1

Assessment of supplier impact

No, we do not assess the impact of our suppliers and have no plans to do so within the next two years

Please explain

W1.5b

(W1.5b) Do your suppliers have to meet water-related requirements as part of your organization's purchasing process?

	Suppliers have to meet specific water-related requirements	Comment
Row 1	No, but we plan to introduce water-related requirements within the next two years	

W1.5d

(W1.5d) Provide details of any other water-related supplier engagement activity.

Type of engagement

Incentivization

Details of engagement

Other, please specify

Requirement to adhere to our code of conduct regarding water stewardship and management

% of suppliers by number

76-99

Rationale for your engagement

As an organization, we require 100% of third-party contractors and sub-contractors to be HSE pre-qualified prior to commencing service work. This includes water-related issues, ranging from compliance with regulations to groundwater protection from spills. This helps ensure they have an HSE program in place that meets or exceeds our requirements. We also observe and interact with our vendors on an ongoing basis to ensure they are adhering to Vermilion's HSE practices, procedures and rules. This is essential to our governance strategy which not only prioritizes regulatory compliance, but also the safety and environmental protection of the communities in which we operate.

We engage with partners (vendors, consultants, peers, etc.) throughout our operating regions to ensure we are pursuing and/or developing industry best practices, and to identify opportunities to collaborate on innovative development solutions in relation to sustainability issues, including water. Vermilion's strategy currently allows for flexible engagement with an additional focus on engaging those organizations in our supply chain where the supplier has an understanding of sustainability and water management, and whose interest in water issues may impact business outcomes.

To support this, we hold mandatory monthly HSE meetings (virtually if needed) in every field district that all staff attend and senior management routinely participate in. On a quarterly basis, the HSE district meetings are replaced by HSE-focused town hall meetings that include our vendors.

With regard to our supply chain, our Corporate Contractor Selection and Management Standard and Guidance Document include specific activities to support HSE performance, including a pre-qualification questionnaire. In addition, we are currently conducting a global supply chain risk assessment, analyzing risks based on geography, industry and operations, including climate change policies. Annually, we are focusing on all suppliers with which we spent more than \$1 million, assessing whether they have public commitments to environmental protection, including climate change and water, in place, and the level of detail and external assurance.

Impact of the engagement and measures of success

The most important impact of engagement and measure of success is 100% compliance with water-related regulations in our operating areas, which has a direct impact on our company reputation. A further impact of the supply chain risk assessment is the identification of suppliers without public commitments to climate change including water. We are reassessing those suppliers in 2022-23 to assess change and the potential for direct engagement to encourage public commitments. We continually engage key

vendors on reduction of water use, among other areas. Measurements of success will eventually be the quantification of a sustainability capital effectiveness ratio to aid in our internal assessment of the supplemental benefit of our capital investments. This will support our strategic objective of Integrated Sustainability, while providing a way for Vermilion to demonstrate to our investors and the public that our market outperformance is correlated to our strong sustainability focus and performance.

Comment

W1.5e

(W1.5e) Provide details of any water-related engagement activity with customers or other value chain partners.

Type of stakeholder

Customers

Type of engagement

Innovation & collaboration

Details of engagement

Collaborate with stakeholders on innovations to reduce water impacts in products and services

Rationale for your engagement

Our customers include North American midstream and downstream refiners, Asia Pacific refining and lubricant businesses, European downstream refiners, and key aggregators and utilities. In some cases, we are mandated to use specific customers (e.g. GasTerra); for the rest, there is a transparent bid process. Our goals for engaging with our value chain is to ensure awareness of our commitment to ESG, including climate change and water, and encourage activities to reduce climate change and water impacts. Our Marketing department has established an ESG section in customer communications, including requests for proposal, tenders and bid documents. This establishes our commitment to ESG, including water, and requests entities include information about their commitment to ESG in bids. We use this to compare between bidders and raise awareness with these customers – successful bidders or not – about the growing criticality of ESG, including water.

Impact of the engagement and measures of success

Our measures of success include the number of potential customers that we communicate with on ESG commitments, including climate change and water security, as our input measure. We also track the number of potential customers that respond with their ESG info – our output measure. As the initiative further develops, we anticipate using outcome measures, such as number of successful bids where ESG commitments made a material difference and the potential for developing partnerships

based on a mutual recognition of the importance of ESG, particularly climate change and water security, and tracking results from those partnerships.

Current impact is that 100% of new tenders/requests for proposals or bids, etc. for our crude oil and gas marketing in 2022 include our own ESG commitment and also request information on the potential customer’s commitment. We track the bids that return with ESG, including climate and water, information and compare this to the companies’ externally communicated ESG and climate information.

W2. Business impacts

W2.1

(W2.1) Has your organization experienced any detrimental water-related impacts?

No

W2.2

(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

	Water-related regulatory violations	Comment
Row 1	No	

W3. Procedures

W3.1

(W3.1) Does your organization identify and classify potential water pollutants associated with its activities that could have a detrimental impact on water ecosystems or human health?

	Identification and classification of potential water pollutants	How potential water pollutants are identified and classified
Row 1	Yes, we identify and classify our potential water pollutants	Vermilion employs, or otherwise engages as required, subject matter specialists with knowledge in human health and ecological risk evaluation, groundwater assessment (including contaminant fate and transport processes), habitat assessment (aquatic and terrestrial), and occupational health & safety exposure monitoring and management. These specialists collectively drive the identification, classification and prioritization decisions at Vermilion with respect to potential environmental pollutants in water, soil and air.

		<p>In the context of our operating practices, potential pollutants of concern are identified with consideration to published resources, including risk-based environmental quality guidelines and product-specific safety data sheets (SDS), technical guidance provided by agencies such as Health Canada, Environmental Protection Agency (EPA) and the World Health Organization, and prior experience (direct and third-party) with similar contaminants in similar circumstances.</p> <p>In general, the risk evaluation considers toxicity (human and ecological), potential for release, persistence in the environment, mobility, and product availability and frequency of use. On an application- or location-specific basis, site-specific considerations are also integrated, particularly in relation to relevant receptors and exposure pathways (e.g. aquatic toxicity concerns may not be a primary driver in circumstances where there are no nearby surface water bodies).</p>
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W3.1a

(W3.1a) Describe how your organization minimizes the adverse impacts of potential water pollutants on water ecosystems or human health associated with your activities.

Water pollutant category

Oil

Description of water pollutant and potential impacts

Petroleum hydrocarbons (PHCs) are the principal output of upstream oil exploration and production activities and, as such, represent a primary contaminant of concern to our industry, both in free-liquid and dissolved phases. In addition to production fluids (i.e. crude oil and natural gas liquids), refined hydrocarbons are also widely used in the industry, examples of which include: vehicle and equipment fuels (e.g. drilling rigs, generators, etc.), oil based mud (OBM) systems, fracturing fluids, and various maintenance and cleaning products (e.g. lubricating oils, degreasing agents, etc.). Both production fluids and refined products commonly contain constituents of toxicological (or aesthetic) concern at concentrations and solubilities that represent a potential risk to groundwater and surface water bodies. Examples of such constituents include benzene, toluene, ethylbenzene and xylenes (BTEX), polycyclic aromatic hydrocarbons (PAHs), and shorter-chain, higher solubility aliphatic hydrocarbons.

Value chain stage

Direct operations

Actions and procedures to minimize adverse impacts

Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience
Implementation of integrated solid waste management systems
Industrial and chemical accidents prevention, preparedness, and response
Requirement for suppliers to comply with regulatory requirements
Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements
Other, please specify
Compliance with risk -based regulatory standards related to environmental assessment and remediation

Please explain

Our approach to minimizing the adverse impacts of potential water pollutants involves multiple elements, including:

- Application of a robust Process Safety Management System that includes asset integrity programs that involve technical experts in corrosion protection & control & sophisticated assessment & monitoring technologies including intelligent pigging systems.
- Product containment, storage & transfer facilities specifically engineered to reduce the risk of release & mitigate adverse effect (e.g. automated process monitoring & shut-down systems, pressure relief & backflow prevention devices, secondary containment facilities & multi-walled storage tanks, etc.).
- Groundwater & surface water monitoring programs undertaken at higher-risk operating locations as a regulatory condition, or in discretionary monitoring & risk management programs.
- Pre-construction assessments undertaken by environmental specialists to ensure sensitive or potentially at-risk aquatic environments are identified & avoided.
- Post construction, operator inspections typically completed daily at producing assets to identify potential problem scenarios.
- Project specific environmental monitoring during sensitive field programs (e.g. directional boring beneath water bodies).
- Area & job specific spill preparedness & response plans in all business units with mock ERP exercises involving spill response elements undertaken periodically in accordance with corporate and/or regulatory requirements.

Water pollutant category

Other, please specify
Salinity Parameters

Description of water pollutant and potential impacts

Salt (NaCl) is a common contaminant of concern associated with produced water, particularly in our Canadian Business Unit where chloride concentrations in produced water often exceed 150,000 ppm. Although generally not a concern from a human health perspective, freshwater aquatic toxicity guidelines for chloride have been

developed, as well as aesthetic guidelines for drinking water. Chloride is highly soluble and mobile and is not influenced by many of the natural attenuation processes that apply to hydrocarbon compounds (e.g. sorption, biodegradation, volatilization). Consequently, salt often represents the dominant contaminant of concern in circumstances where lateral groundwater transport to a surface waterbody or downward migration into a potable aquifer is of concern.

Value chain stage

Direct operations

Actions and procedures to minimize adverse impacts

Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience

Implementation of integrated solid waste management systems

Industrial and chemical accidents prevention, preparedness, and response

Requirement for suppliers to comply with regulatory requirements

Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements

Other, please specify

Compliance with risk -based regulatory standards related to environmental assessment and remediation

Please explain

Our approach to minimizing the adverse impacts of potential water pollutants involves multiple elements, including:

- Application of a robust Process Safety Management System that includes asset integrity programs that involve technical experts in corrosion protection & control & sophisticated assessment & monitoring technologies including intelligent pigging systems.
- Product containment, storage & transfer facilities specifically engineered to reduce the risk of release & mitigate adverse effect (e.g. automated process monitoring & shut-down systems, pressure relief & backflow prevention devices, secondary containment facilities & multi-walled storage tanks, etc.).
- Groundwater & surface water monitoring programs undertaken at higher-risk operating locations as a regulatory condition, or in discretionary monitoring & risk management programs.
- Pre-construction assessments undertaken by environmental specialists to ensure sensitive or potentially at-risk aquatic environments are identified & avoided.
- Post construction, operator inspections typically completed daily at producing assets to identify potential problem scenarios.
- Project specific environmental monitoring during sensitive field programs (e.g. directional boring beneath water bodies).
- Area & job specific spill preparedness & response plans in all business units with mock ERP exercises involving spill response elements undertaken periodically in accordance with corporate and/or regulatory requirements.

Water pollutant category

Other, please specify

Metals

Description of water pollutant and potential impacts

Metals are a common contaminant of concern associated with upstream exploration and production activities. Certain metals (e.g. boron) are often present in production fluids at concentrations that may represent a potential human health or ecological risk. Historically, certain metals (e.g. barium, zinc, chromium) have also been a constituent of drilling mud additives and represent a potential concern with respect to drilling waste handling and disposal. Metals in operational equipment (e.g. mercury switches) represent another potential source of metals concern in the context of facility decommissioning and abandonment activities. Experience has also shown that elevated concentrations of salt (NaCl) in groundwater can result in an associated increase in dissolved metals concentrations related to a shift in partitioning between sorbed and dissolved states.

Value chain stage

Direct operations

Actions and procedures to minimize adverse impacts

Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience

Implementation of integrated solid waste management systems

Industrial and chemical accidents prevention, preparedness, and response

Requirement for suppliers to comply with regulatory requirements

Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements

Other, please specify

Compliance with risk -based regulatory standards related to environmental assessment and remediation

Please explain

Our approach to minimizing the adverse impacts of potential water pollutants involves multiple elements, including:

- Application of a robust Process Safety Management System that includes asset integrity programs that involve technical experts in corrosion protection & control & sophisticated assessment & monitoring technologies including intelligent pigging systems.
- Product containment, storage & transfer facilities specifically engineered to reduce the risk of release & mitigate adverse effect (e.g. automated process monitoring & shut-down systems, pressure relief & backflow prevention devices, secondary containment facilities & multi-walled storage tanks, etc.).
- Groundwater & surface water monitoring programs undertaken at higher-risk operating

locations as a regulatory condition, or in discretionary monitoring & risk management programs.

- Pre-construction assessments undertaken by environmental specialists to ensure sensitive or potentially at-risk aquatic environments are identified & avoided.
- Post construction, operator inspections typically completed daily at producing assets to identify potential problem scenarios.
- Project specific environmental monitoring during sensitive field programs (e.g. directional boring beneath water bodies).
- Area & job specific spill preparedness & response plans in all business units with mock ERP exercises involving spill response elements undertaken periodically in accordance with corporate and/or regulatory requirements.

Water pollutant category

Other synthetic organic compounds

Description of water pollutant and potential impacts

Numerous other commercially available chemical products are used in the upstream oil industry that have the potential to adversely impact groundwater or surface water quality if released. A few examples of such chemicals include ethylene and triethylene glycol used in natural gas refrigeration and dehydration process, methanol used for hydrate suppression, corrosion inhibitors used in asset integrity programs, and wax inhibitors or dispersants used in production maintenance applications. In addition to the pure products (e.g. glycols, methanol), the blended products also commonly contain organic and/or inorganic constituents of human health or ecological concern, and require due care in management and application.

Value chain stage

Direct operations

Actions and procedures to minimize adverse impacts

Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience

Implementation of integrated solid waste management systems

Industrial and chemical accidents prevention, preparedness, and response

Requirement for suppliers to comply with regulatory requirements

Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements

Other, please specify

Compliance with risk -based regulatory standards related to environmental assessment and remediation

Please explain

Our approach to minimizing the adverse impacts of potential water pollutants involves multiple elements, including:

- Application of a robust Process Safety Management System that includes asset

integrity programs that involve technical experts in corrosion protection & control & sophisticated assessment & monitoring technologies including intelligent pigging systems.

- Product containment, storage & transfer facilities specifically engineered to reduce the risk of release & mitigate adverse effect (e.g. automated process monitoring & shut-down systems, pressure relief & backflow prevention devices, secondary containment facilities & multi-walled storage tanks, etc.).
- Groundwater & surface water monitoring programs undertaken at higher-risk operating locations as a regulatory condition, or in discretionary monitoring & risk management programs.
- Pre-construction assessments undertaken by environmental specialists to ensure sensitive or potentially at-risk aquatic environments are identified & avoided.
- Post construction, operator inspections typically completed daily at producing assets to identify potential problem scenarios.
- Project specific environmental monitoring during sensitive field programs (e.g. directional boring beneath water bodies).
- Area & job specific spill preparedness & response plans in all business units with mock ERP exercises involving spill response elements undertaken periodically in accordance with corporate and/or regulatory requirements.

Water pollutant category

Other, please specify

Naturally Occurring Radioactive Materials (NORM)

Description of water pollutant and potential impacts

Similar to many other upstream operators, naturally occurring radioactive material (NORM) has been identified as a potential contaminant of concern in relation to our oil and gas production operations. Although generally limited in magnitude and scope in the context of our operations, NORM is known to accumulate in scale, sludge and similar waste products and can result in contamination to process equipment (e.g. wellheads, vessels, pumps, etc.) and fluids, resulting in a potential human health risk.

Value chain stage

Direct operations

Actions and procedures to minimize adverse impacts

Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience

Implementation of integrated solid waste management systems

Industrial and chemical accidents prevention, preparedness, and response

Requirement for suppliers to comply with regulatory requirements

Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements

Other, please specify

Compliance with risk -based regulatory standards related to environmental assessment and remediation

Please explain

Our approach to minimizing the adverse impacts of potential water pollutants involves multiple elements, including:

- Application of a robust Process Safety Management System that includes asset integrity programs that involve technical experts in corrosion protection & control & sophisticated assessment & monitoring technologies including intelligent pigging systems.
- Product containment, storage & transfer facilities specifically engineered to reduce the risk of release & mitigate adverse effect (e.g. automated process monitoring & shut-down systems, pressure relief & backflow prevention devices, secondary containment facilities & multi-walled storage tanks, etc.).
- Groundwater & surface water monitoring programs undertaken at higher-risk operating locations as a regulatory condition, or in discretionary monitoring & risk management programs.
- Pre-construction assessments undertaken by environmental specialists to ensure sensitive or potentially at-risk aquatic environments are identified & avoided.
- Post construction, operator inspections typically completed daily at producing assets to identify potential problem scenarios.
- Project specific environmental monitoring during sensitive field programs (e.g. directional boring beneath water bodies).
- Area & job specific spill preparedness & response plans in all business units with mock ERP exercises involving spill response elements undertaken periodically in accordance with corporate and/or regulatory requirements.

Water pollutant category

Other, please specify
Drilling Fluids

Description of water pollutant and potential impacts

Although considerable advancements have been made in recent years in relation to environmentally friendly drilling products, drilling mud and completions fluids still often contain organic and/or inorganic constituents that may represent a potential risk to groundwater or surface water if released to the environment. Oil based mud systems, which typically use diesel or fuel oil as the continuous phase, and high salinity, water-based systems (e.g. KCl) are two higher risk examples that warrant heightened management practices. Drilling fluids used in hydraulic fracturing in Canada and the US may also contain chemicals of concern, including hydrocarbons, inorganics and biocides.

Value chain stage

Direct operations

Actions and procedures to minimize adverse impacts

Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience

Implementation of integrated solid waste management systems

Industrial and chemical accidents prevention, preparedness, and response

Requirement for suppliers to comply with regulatory requirements

Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements

Other, please specify

Compliance with risk -based regulatory standards related to environmental assessment and remediation

Please explain

Our approach to minimizing the adverse impacts of potential water pollutants involves multiple elements, including:

- Application of a robust Process Safety Management System that includes asset integrity programs that involve technical experts in corrosion protection & control & sophisticated assessment & monitoring technologies including intelligent pigging systems.
- Product containment, storage & transfer facilities specifically engineered to reduce the risk of release & mitigate adverse effect (e.g. automated process monitoring & shut-down systems, pressure relief & backflow prevention devices, secondary containment facilities & multi-walled storage tanks, etc.).
- Groundwater & surface water monitoring programs undertaken at higher-risk operating locations as a regulatory condition, or in discretionary monitoring & risk management programs.
- Pre-construction assessments undertaken by environmental specialists to ensure sensitive or potentially at-risk aquatic environments are identified & avoided.
- Post construction, operator inspections typically completed daily at producing assets to identify potential problem scenarios.
- Project specific environmental monitoring during sensitive field programs (e.g. directional boring beneath water bodies).
- Area & job specific spill preparedness & response plans in all business units with mock ERP exercises involving spill response elements undertaken periodically in accordance with corporate and/or regulatory requirements.

W3.3

(W3.3) Does your organization undertake a water-related risk assessment?

Yes, water-related risks are assessed

W3.3a

(W3.3a) Select the options that best describe your procedures for identifying and assessing water-related risks.

Value chain stage

Direct operations

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of an established enterprise risk management framework

Frequency of assessment

Annually

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Tools on the market
Enterprise risk management
Databases

Tools and methods used

WRI Aqueduct
WWF Water Risk Filter
COSO Enterprise Risk Management Framework
Enterprise Risk Management
Regional government databases
Other, please specify
Equitable Origin certification for our West Pembina sites in Alberta, Business Working Responsibly Mark in Ireland and AFNOR "CSR Committed" label in France

Contextual issues considered

Water availability at a basin/catchment level
Water quality at a basin/catchment level
Stakeholder conflicts concerning water resources at a basin/catchment level
Implications of water on your key commodities/raw materials
Water regulatory frameworks
Status of ecosystems and habitats
Access to fully-functioning, safely managed WASH services for all employees
Other, please specify
Corporate Risk Register & Risk Matrix identify, assess and monitors new & emerging water-related risks on an ongoing basis, updating the Register as needed but annually at minimum.

Stakeholders considered

Customers
Employees
Investors
Local communities

NGOs
Regulators
Suppliers
Water utilities at a local level
Other water users at the basin/catchment level

Comment

Vermilion uses our Enterprise Risk Management (ERM) System, with its Corporate Risk Register & Risk Matrix, to identify, assess & monitor new & emerging water related risks on an ongoing basis, updating the Register as needed but annually at minimum. We also use tools such as WRI Aqueduct and WWF Water Risk Filters to identify water stress areas as it relates to our operations and value chain partners and ensure that the information is fed into operational development strategies to protect water bodies and increase water efficiency. We also use relevant regional government databases whenever available to us.

Value chain stage

Supply chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed in an environmental risk assessment

Frequency of assessment

Annually

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Tools on the market

Tools and methods used

Other, please specify

Through our third-party compliance system in Canada and US + Internal global supply chain risk assessment, analyzing risks including climate & water, based on geography, industry & operations, for suppliers with >\$1MM spend annually.

Contextual issues considered

Water availability at a basin/catchment level
Water quality at a basin/catchment level
Implications of water on your key commodities/raw materials
Water regulatory frameworks
Status of ecosystems and habitats
Access to fully-functioning, safely managed WASH services for all employees

Stakeholders considered

- Customers
- Employees
- Investors
- Local communities
- NGOs
- Regulators
- Suppliers
- Water utilities at a local level
- Other water users at the basin/catchment level

Comment

We are conducting a global supply chain risk assessment, analyzing risks using publicly declared commitments to ESG issues, including climate and water, based on geography, industry and operations, for suppliers with > \$1MM spend annually. An impact of the supply chain risk assessment is the identification of suppliers without public commitments to climate change including water, which we then assess against the WRI Aqueduct tool for water stressed areas and water risk. We are reassessing those suppliers in 2022-23, to assess change and the potential for direct engagement with them to encourage public commitments.

Supported by a third-party information management platform (ISNetworld) in our Canada and US Business Units, approximately 72% of our suppliers have been successfully engaged on providing water-related risk information. Sample questions include: does your company track water use in your operations; does your company have a program in place to conserve, reduce and reuse water in your operations; what volume of water was used, recycled and re-used by your company; and, do any operations take place in areas of drought?

This constitutes another step in greater direct supplier engagement on water-related issues, and focuses on areas where our water use may potentially increase through acquisition and development, and where our use of third-party supplier compliance systems enables us to leverage existing supplier questionnaires.

Our supplier engagement questionnaires will be updated annually and reviewed by our Operations, HSE and sustainability teams to identify opportunities for further engagement and improvement over time. We have expanded this external supplier engagement while working to establish internal and external benchmarks for water use and intensity, and to demonstrate our own performance via CDP Water Security submissions. We believe this is providing a solid foundation for data gathering from suppliers, and helps to guide the data and information requests that we make of them.

W3.3b

(W3.3b) Describe your organization’s process for identifying, assessing, and responding to water-related risks within your direct operations and other stages of your value chain.

	Rationale for approach to risk assessment	Explanation of contextual issues considered	Explanation of stakeholders considered	Decision-making process for risk response
Row 1	<p>We assess water risk in 100% of our operations because water availability & quality are critical inputs for operations, including production, drilling & completions, & depend on regulatory licenses, which in turn depend on stakeholder relations & ecosystems. We are prioritizing North America for supply chain given the water intensity & potential for long-term issues, & selected a \$1MM threshold for the global analysis for practicality.</p>	<p>Our decision-making on risk management approach focuses on reducing the risk to a level as low as reasonably practicable, accepting the risk, or transferring it (e.g. insurance). Eg if direct mitigation is not possible (e.g. drought), we would adapt our business processes to reduce potential impact (e.g. finding alternative sources; transferring operations to other sites); (e.g. increasing risk of flood), protect against the risk (e.g. flood controls) while also insuring our operations.</p> <p>Financial impact is deemed substantive if it could cause a business loss of more than \$10 million CAD (un-risked and before mitigation/recovery).</p> <p>Substantive impact is defined further using thresholds:</p> <ul style="list-style-type: none"> - Has persistent, long-term effects on habitat, ecological communities, 	<p>Our company key stakeholders are investors, staff, communities, governments & regulators, & partners (incl. customers) & suppliers, & are thus considered in risk id & assessment. Our operating areas use a multi-stakeholder model for managing water supplies, incl. licenses, so water utilities, NGOs & other users are also key.</p>	<p>Risks are identified by key staff, e.g. Operations, Finance, Health, Safety and Environment, Economics, Government and Public Relations, and Sustainability teams at corporate, business unit & asset levels. These employees have significant experience, & use a wide array of inputs, including operational and facility assessments, technical and research reports, external stakeholder organizations, govt policy & regulation changes, industry initiatives, communities & landowners, and NGOs.</p> <p>The results are incorporated into our Corporate Risk Register, which provides a consistent framework to ensure effective tracking & communication of our material risks. Using our Risk Matrix as a prioritization tool, Teams assess severity, likelihood, speed of onset, and vulnerability</p>

		<p>land, air, or water.</p> <ul style="list-style-type: none"> - Requires a specific asset to be shut in for unknown duration during regulatory or legal proceedings. - Reputational damage is national or international, or stakeholder concerns lead to regional or more widespread interruption of operations. <p>At a minimum annually & more frequently when required (e.g. daily during cyclone season), we reassess water risk in relation to:</p> <ul style="list-style-type: none"> • Changes in temperature & precipitation extremes • Sea level rise • Tropical cyclones (hurricanes & typhoons) • Water reporting obligations • Uncertainty surrounding new regulation • Legal • Technology • Reputation & • Changing consumer behaviour 		<p>using scales from 1 to 5, in terms of human, environment, financial, regulatory, social license and cybersecurity impacts. Every risk case has also been assessed to determine where climate-related risk contributes. The results are provided annually at minimum to senior management, Executive Committee & the Board & its Committees as appropriate, who further assess the risks including interdependencies.</p>
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W4. Risks and opportunities

W4.1

(W4.1) Have you identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes, only within our direct operations

W4.1a

(W4.1a) How does your organization define substantive financial or strategic impact on your business?

Our Enterprise Risk Management (ERM) system includes a corporate risk register in which we maintain records of all material risks to our business and our operations. Within the risk register, in addition to descriptions of the background and context of the risk, we use a risk matrix approved by our Executive and Board of Directors to identify the potential magnitude of the financial or strategic impact of each identified risk on our business. The risk matrix is used to establish impact thresholds across a broad range of risk categories, including people, environment, business loss, reputation, regulatory, and security.

We define substantive financial or strategic impact as part of this risk matrix, to ensure that the risks with the highest potential impact are appropriately managed. This definition applies to both direct operations and supply chain. As per our matrix, financial impact is deemed substantive if it could cause a business loss of more than \$10 MM CAD (unrisks & before mitigation/recovery instruments) A strategic impact is defined as substantive beginning at the following levels, and including any escalations, if it:

- Has persistent but reversible, long term effects on habitat, ecological communities, land, air, or water. Escalations include irreversible effects on these elements, persistent reduction in sensitive ecosystem function, or effects beyond a regional or operations scale.
- Requires a specific asset to be shut in for unknown duration during regulatory or legal proceedings. Escalations include the permanent withdrawal of authority to operate.
- Has reputational damage nationally or internationally and where stakeholder concerns lead to regional or more widespread interruption of operations.

Potential impacts to our business are also assessed within the risk matrix and the corporate risk register in terms of likelihood in order to quantify (or qualify) risk exposure to the organization and determine order of priority in which these risks will be managed. Substantive impacts with a probability greater than one in one thousand (1/1000) or assessed as Possible require the implementation of additional safeguards to achieve ALARP (As Low As Reasonably Possible), or the formal approval from the VP level or Managing Director to temporarily maintain operations while solutions are being implemented. Other measures such as speed of onset and organizational vulnerability are risk qualifiers that are also used to help us with our risk ranking process to provide greater context for risk management. An example of potential substantive impact is the risk scenario that Vermilion would not be able to maintain its water withdrawal license from the Lasseube aquifer due to a change in regulations, generating an estimated revenue loss of approximately \$15MM with a likelihood of "about as likely as not" (see W4.2).

W4.1b

(W4.1b) What is the total number of facilities exposed to water risks with the potential to have a substantive financial or strategic impact on your business, and what proportion of your company-wide facilities does this represent?

Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
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Row 1	2	1-25	Substantive, water-related risks have been identified in relation to our Canada and France business units, which represents 25% of our total business units (2/8 = 25%).
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W4.1c

(W4.1c) By river basin, what is the number and proportion of facilities exposed to water risks that could have a substantive financial or strategic impact on your business, and what is the potential business impact associated with those facilities?

Country/Area & River basin

Canada

Other, please specify

At this time, Vermilion's water accounting data is aggregated at the business unit level rather than river basin level. As such, all of the referenced water accounting metrics reflect business unit totals rather than river basin totals.

Number of facilities exposed to water risk

1

% company-wide facilities this represents

1-25

% company's global oil & gas production volume that could be affected by these facilities

26-50

% company's total global revenue that could be affected

31-40

Comment

As an organization, Vermilion is comprised of eight Business Units, generally defined by operating country (Canada, United States, Australia, France, Netherlands, Germany, Ireland) or geographic region (Central Eastern Europe). In the context of this question, facilities correspond to Business Units. Consequently, one Business Unit (e.g. Canada) would represent 1/8 = 12.5% of company-wide facilities.

Country/Area & River basin

France

Other, please specify

At this time, Vermilion's water accounting data is aggregated at the business unit level rather than river basin level. As such, all of the referenced water accounting metrics reflect business unit totals rather than river basin totals.

Number of facilities exposed to water risk

1

% company-wide facilities this represents

1-25

% company's global oil & gas production volume that could be affected by these facilities

1-25

% company's total global revenue that could be affected

11-20

Comment

As an organization, Vermilion is comprised of eight Business Units, generally defined by operating country (Canada, United States, Australia, France, Netherlands, Germany, Ireland) or geographic region (Central Eastern Europe). In the context of this question, facilities are defined as Business Units. Consequently, one Business Unit (e.g. Canada) would represent $1/8 = 12.5\%$ of company-wide facilities.

W4.2

(W4.2) Provide details of identified risks in your direct operations with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Area & River basin

France

Other, please specify

At this time, Vermilion's water accounting data is aggregated at the business unit level rather than river basin level. As such, all of the referenced water accounting metrics reflect business unit totals rather than river basin totals.

Type of risk & Primary risk driver

Regulatory

Statutory water withdrawal limits/changes to water allocation

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Vermilion owns and operates the Champotran/Latorche and Chaunoy oil fields located in the department of Seine-et-Marne, France since 1999. Production comes from 34 wells drilled into the Chaunoy sandstone formation at a depth ranging from 1900 to 2500 m. Water is injected in 12 injection wells to support pressure of these reservoirs (also known as voidage replacement), and also to sweep or displace oil from the reservoir and push it towards producing wells. Water used to maintain reservoir

pressure and increase oil recovery comes in priority from the water that is produced with the oil and separated in our surface facilities. The water is stored in tanks and pipelined to injection wells. When there is insufficient volume of recycled water to maintain pressure in the reservoir, two additional sources of make-up water are used. Vermilion first uses saline water from well CHN 22, which produces from a non-renewable Triassic aquifer. Should a second source of water be required, water can be produced from the Champigny aquifer as authorized by prefectural decree n°09/DAIDD/M/017, July 17 2009 (ref. Appendix 2).

Timeframe

More than 6 years

Magnitude of potential impact

Medium

Likelihood

Unlikely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

10,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

In the event that Vermilion is no longer be able to maintain its water withdrawal license from the Calcaires de Champigny aquifer due to a change in regulations, an alternative water source would have to be identified and tested to replace the current volume of make-up water used to maintain reservoir pressure in the Chaunoy, Champotran/Latorche oil fields. It is estimated that 5 wells at a cost of \$2.0MMM/well would need to be drilled, equipped and tied-in to produce the new source water wells to existing facilities in replacement of volumes previously extracted from the Champigny aquifer (5 x \$2MM = \$10MM).

Primary response to risk

Comply with local regulatory requirements

Description of response

Vermilion is fully committed to operating responsibly in all of our jurisdictions, and as such meeting regulatory requirements and industry standards. This commitment makes both Current Regulation and Emerging Regulation material to our operations. On an ongoing basis in every BU our technical teams assess our current operations and planned development activities to ensure that we operate within our commitment to

responsible operations. We also engage external regulatory experts to ensure that our staff is up to date on current regulation, as well as upcoming changes to regulations impacting our operation. In addition, the Public and Government Relations staff in our business units provide important monitoring of the interpretation of current regulations, which can be subject to change by the courts and government departments. In this risk case, the steps that Vermilion would follow as part of regulatory approval process would include: Regulatory request sent to the Prefecture with Environment impact assessment (including a specific regional hydrogeological survey and study); consultation with the public, with water and health agencies, and with local health and safety committee.

Cost of response

200,000

Explanation of cost of response

The cost of response to this change of regulation is estimated at \$200K (1 FTE) and corresponds to time spent by internal resources to manage this work. Functions involved in this type of project include regulatory advisor, public-government relationship coordinator, communication, operations and technical services.

Country/Area & River basin

France

Other, please specify

At this time, Vermilion's water accounting data is aggregated at the business unit level rather than river basin level. As such, all of the referenced water accounting metrics reflect business unit totals rather than river basin totals.

Type of risk & Primary risk driver

Regulatory

Statutory water withdrawal limits/changes to water allocation

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Vermilion owns and operates the Vic Bilh oil field located in the department of Pyrénées-Atlantiques, France since 2012. Production comes from wells drilled into the Barrémien et Mano dolomite formations at a depth ranging from 2200 to 2500 m. Water is injected in 3 injection wells to support pressure of this reservoir (also known as voidage replacement), and also to sweep or displace oil from the reservoir and push it towards 30 producing wells. Water used to maintain reservoir pressure and increase oil recovery comes in priority from the water that is produced with the oil and separated in our surface facilities. The water is stored in tanks and pipelined to injection wells. When there is insufficient volume of recycled water to maintain pressure in the reservoir, additional make-up water is used. Vermilion is authorized to produce saline water from 3 source water wells from the Lasseube aquifer as per prefectural decree n° MI NES/2019/001, January 25 2019.

Timeframe

More than 6 years

Magnitude of potential impact

High

Likelihood

About as likely as not

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

15,400,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

In the event that Vermilion is no longer able to maintain its water withdrawal license from the Lasseube aquifer due to a change in regulations and the fact that there is no other known source of saline water that is available and economic to produce, Vermilion will most likely stop reinjecting make-up water in its Vic Bilh oil field. The lack of voidage replacement will cause the reservoir pressure to deplete over time and reduce the ultimate oil recovery of this reservoir. Reduction in water injection will also reduce sweeping efficiency of the waterflooding scheme and negatively impact ultimate oil recovery of the reservoir. Based on historical reservoir performance and modelling, the loss of make-up water reinjection would reduce the ultimate oil recovery of the Vic Bilh field by an average of 55 boe/d over the remaining 15 years of operations remaining for this field. The financial impact in lost revenue is estimated at approximately \$15MM (55 boe/d x 365d/yr x 15yrs x \$50/boe netback).

Primary response to risk

Comply with local regulatory requirements

Description of response

Vermilion is fully committed to operating responsibly in all of our jurisdictions, and as such meeting regulatory requirements and industry standards. This commitment makes both Current Regulation and Emerging Regulation material to our operations. On an ongoing basis in every BU our technical teams assess our current operations and planned development activities to ensure that we operate within our commitment to responsible operations. We also engage external regulatory experts to ensure that our staff is up to date on current regulation, as well as upcoming changes to regulations impacting our operation. In addition, the Public and Government Relations staff in our business units provide important monitoring of the interpretation of current regulations, which can be subject to change by the courts and government departments.

Cost of response

200,000

Explanation of cost of response

The cost of response to this change of regulation is estimated at \$200K (1 FTE) and corresponds to time spent by internal resources to manage this work. Functions involved in this type of project include regulatory advisor, public-government relationship coordinator, communication operations and technical services.

Country/Area & River basin

France

Other, please specify

At this time, Vermilion's water accounting data is aggregated at the business unit level rather than river basin level. As such, all of the referenced water accounting metrics reflect business unit totals rather than river basin totals.

Type of risk & Primary risk driver

Regulatory

Statutory water withdrawal limits/changes to water allocation

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Vermilion owns and operates five Neocomian oil fields from the Neocomian sandstone formation (multi-layer reservoirs) in the department of Loiret, France since 2012. In this region, the Neocomian aquifer (same layer than oil bearing reservoir) is at a depth of 550 -600 m is classified as a strategic resource for fresh water supply. No industrial use is allowed and every well must be authorized under very stringent +-conditions. Water is injected in 19 injection wells to support pressure of these reservoirs (also known as voidage replacement), and also to sweep or displace oil from the reservoir and push it towards 81 producing wells. Water used to maintain reservoir pressure and increase oil recovery comes from the water that is produced with the oil and separated in our surface facilities. The water is stored in tanks and pipelined to injection wells.

Timeframe

More than 6 years

Magnitude of potential impact

Medium

Likelihood

Unlikely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

12,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

In the event that Vermilion temporarily (3 years) loses its permit to operate its Neocomian oil fields due to a change in regulations regarding the protection of the Neocomian aquifer (even though our reservoir are disconnected from regional fresh water aquifers) , Vermilion will be required to shut in its operations prematurely and leave recoverable oil reserves still remaining in the reservoir. Based on historical reservoir performance and modelling, the financial impact in lost revenue is estimated at approximately \$12MM (238,000 bbl of reserves not recovered at \$50/bbl netback).

Primary response to risk

Comply with local regulatory requirements

Description of response

Vermilion is fully committed to operating responsibly in all of our jurisdictions, and as such meeting regulatory requirements and industry standards. This commitment makes both Current Regulation and Emerging Regulation material to our operations. On an ongoing basis in every BU our technical teams assess our current operations and planned development activities to ensure that we operate within our commitment to responsible operations. We also engage external regulatory experts to ensure that our staff is up to date on current regulation, as well as upcoming changes to regulations impacting our operation. In addition, the Public and Government Relations staff in our business units provide important monitoring of the interpretation of current regulations, which can be subject to change by the courts and government departments.

Cost of response

200,000

Explanation of cost of response

The cost of response to this change of regulation is estimated at \$200K (1 FTE) and corresponds to time spent by internal resources to manage this work. Functions involved in this type of project include regulatory advisor, public-government relationship coordinator, communication, operations and technical services.

Country/Area & River basin

Canada

Other, please specify

At this time, Vermilion's water accounting data is aggregated at the business unit level rather than river basin level. As such, all of the referenced water accounting metrics reflect business unit totals rather than river basin totals.

Type of risk & Primary risk driver

Regulatory
Statutory water withdrawal limits/changes to water allocation

Primary potential impact

Increased operating costs

Company-specific description

Due to economic, operational (i.e. outcome) and fluid handling requirements, Vermilion currently uses freshwater based fluid systems in its hydraulic fracturing operations in Canadian (Saskatchewan, Alberta and British Columbia). This risk case recognizes the possibility that future regulatory and/or social pressure, or water availability concerns, may limit or prohibit the use of freshwater in this application, either temporarily or over a longer-term.

Although more strategic than financial at current drilling levels, as a responsible energy producer we have identified this risk as substantive because of its links to reputation, social license to operate and current and future regulations, all of which will impact our ability to not only operate in our areas, but also to grow.

Timeframe

More than 6 years

Magnitude of potential impact

Medium

Likelihood

Unlikely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

7,400,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

In recognition of this risk, Vermilion has evaluated the technical feasibility and cost implications of switching from the freshwater fluid system to a saltwater based, High Viscosity Friction Reducer (HFVR) system. In relation to our Alberta operations, while technically feasible, the evaluation identified increased operational costs in relation to

fluid storage and handling (e.g. increased fluid requirements, bigger tanks, increased hauling, etc.), on-lease transfer equipment (including maintenance), and increased waste management and disposal. The total cost differential associated with these activities is estimated to be approximately \$105k/well. Direct, third-party fracturing costs (i.e. materials, consulting services, etc.) are estimated to be an additional \$20k per well.

Due to different geologic conditions, the feasibility assessment determined that the completion technologies applied in Saskatchewan can likely modified to handle saltwater without a similar change in frac fluid system. The incremental cost associated with shifting from freshwater to saltwater in Saskatchewan is estimated to be approximately \$30k/well.

With consideration of the current asset base, the potential financial impact of the risk is based on a 40 well per year drilling program in Alberta and 80 well per year drilling program in Saskatchewan ($40 \times \$125k + 80 \times \$30k = \$7.4MM$).

As part of our water management process, we evaluate freshwater intensities within all of our business units to identify higher current and potential users of water. Our newly acquired Northeast British Columbia (Mica) development includes near term plans for constructing a future water hub that will reduce freshwater requirements along with the requirement to transport freshwater via truck. The technical requirements and costs associated with constructing and operating the hub are under evaluation.

Primary response to risk

Comply with local regulatory requirements

Description of response

Should future circumstances limit access to freshwater for fracturing purposes, the drilling program in the affected area(s) would be reassessed and, with consideration to the scope and anticipated duration of the expected restriction, an appropriate decision would be made with respect to modifying the drilling program to maintain regulatory compliance. This may include prioritizing drilling activities in other areas where freshwater availability is not a concern and/or shifting to a saltwater frac fluid system.

Cost of response

100,000

Explanation of cost of response

The cost differential associated with shifting from freshwater to saltwater based fracturing fluids forms the basis of the potential impact figure. At current drilling levels, the increased engineering, coordination and management costs associated with the change is estimated to be approximately 0.5 FTE = \$100k ($\$200k \times 0.5 = \$100k$) per annum.

The technical requirements and costs associated with constructing and operating the planned freshwater recycling hub are under evaluation.

W4.2c

(W4.2c) Why does your organization not consider itself exposed to water risks in its value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact?

	Primary reason	Please explain
Row 1	Risks exist, but no substantive impact anticipated	The suppliers with the greatest water risk exposure have been included as part of our direct operations, as we have direct control over these activities. These suppliers work directly with us, managed by us, in our drilling and production activities, and we thus have direct control over them. Other suppliers, such as those providing personnel or administration supplies, have far lower exposure to water risks.

W4.3

(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes, we have identified opportunities, and some/all are being realized

W4.3a

(W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.

Type of opportunity

Efficiency

Primary water-related opportunity

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

Environmental stewardship of water resources includes two key focus areas for Vermilion: protection of water bodies, including oceans, lakes and rivers; and increasing our water efficiency. We support this using key performance indicators on water use in the Performance Metrics section of our Sustainability Report and, beginning in 2020, in our CDP Water Security questionnaire submission. This includes water withdrawal by source, and percentage and volume of water recycled and reused. We are committed to careful stewardship of the planet's resources, including water. We do not currently operate in areas that are considered water stressed; however, our capital and operating procedures recognize the critical importance of this resource. As a result, we emphasize:

- The efficient use of all water,
- The prioritization of non-potable water over potable water,

- The consideration of our communities and their concerns, and
- The protection of vulnerable ecosystems.

Operationally and environmentally, we continue to work hard to establish the most efficient and sustainable ways of sourcing and reusing this critical resource. As the single largest component used in hydraulic fracturing operations, water is essential to developing many types of oil and gas reservoirs, particularly in North America. In Vermilion's operations, our use of hydraulic fracturing in some semi-conventional clastic reservoirs is significantly less frac intensive than shale development, requiring much lower volumes of water. Approximately one-quarter of the water we pump during a Canadian frac, for example, returns immediately during flowback operations. We then employ fracture fluid technology that lets us re-use this flowback water on subsequent wells. We are also assessing where we can adjust completion schedules to optimize water use, and recycle flowback water to reduce overall make-up water requirements.

Finally, we are also looking at the potential of using produced water (non-potable water produced with oil and gas) from our operations to replace other water sources. To support water efficiency, all business units assessed water risks and opportunities in 2019-2021, and will be identifying potential opportunities for increased water efficiency in 2022-2023.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

Efficiency in water use will reduce water that needs to be either (a) purchased or (b) produced, transported and disposed of, all of which will lead to cost efficiencies.

Type of opportunity

Products and services

Primary water-related opportunity

Sales of new products/services

Company-specific description & strategy to realize opportunity

We are assessing circular economy approaches to our operations, particularly with respect to the use of produced water, including geothermal energy, metals extraction such as lithium, & distillation to create usable or potable water rather than disposal. The most advanced opportunity is the development of community-based geothermal applications in our France business, using the heat from our produced water to heat an industrial-sized tomato greenhouse operation. Today, this ongoing operation has catalyzed an entire agricultural sector, and we have expanded the concept to heating a residential neighbourhood and, in 2021, a spirulina (microalgae) agricultural operation and a college. In Parentis, our commitment to provide heat free-of-charge and free of carbon emissions for 25 years has made the greenhouse operation profitable to build and operate, which in turn has enabled our partners to expand, and has attracted other business to the area. Our similar geothermal community-building project specifically target economic inclusivity in the form of social housing: 30% of residences are reserved for those with lower incomes.

In the Netherlands and France, we are continuing to research the potential to convert depleted gas wells to geothermal assets, which could supply energy to community and economic assets such as eco-neighbourhoods and agriculture centres, and to use our land base for partnerships with renewable energy suppliers. An example of the development of low emission goods/services is our France-based industry partnership with Avenia to expand the use of geothermal energy production in oil production, & a geothermal association in Germany. We also partnered with the Green Deal partnership in the Netherlands to investigate the potential for ultra-deep geothermal development appropriate to industrial power and heat requirements. This consortium of industry, research and government partners is continuing on, although our regional partnership identified that the local potential was not strong enough. This does, however, demonstrate our commitment to reusing and indeed repurposing our sources of water to support the community.

While we are providing our geothermal energy in France as part of our strong community relations program there, we are using the projects as pilots to assess the potential to develop similar projects in other regions that would produce revenue.

Estimated timeframe for realization

More than 6 years

Magnitude of potential financial impact

Low-medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

The financial impact of our current projects is difficult to quantify, as it is a contributor to positive community relations, and the resulting social license to operate. However, we believe our work in this area has potential for revenue through the sales of new products and services, along with potential cost savings from the reduction of produced water transportation and disposal. The exploration of these revenue and cost impacts is at too early a stage to identify the full scale of the financial impact.

W5. Facility-level water accounting

W5.1

(W5.1) For each facility referenced in W4.1c, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Facility reference number

Facility 1

Facility name (optional)

Canada Business Unit

Country/Area & River basin

Canada

Other, please specify

At this time, Vermilion's water accounting data is aggregated at the business unit level rather than river basin level. As such, all of the referenced water accounting metrics reflect business unit totals rather than river basin totals.

Latitude

51.0447

Longitude

114.0719

Located in area with water stress

No

Oil & gas sector business division

Upstream

Total water withdrawals at this facility (megaliters/year)

30,580

Comparison of total withdrawals with previous reporting year

About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

312

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

13

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

30,246

Withdrawals from third party sources

9.1

Total water discharges at this facility (megaliters/year)

30,580

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

30,272

Discharges to third party destinations

308.3

Total water consumption at this facility (megaliters/year)

0

Comparison of total consumption with previous reporting year

About the same

Please explain

This is our fourth year of compiling data under the CDP framework. Water-related measurements, monitoring and reporting have been undertaken by Vermilion historically

in other contexts (e.g. regulatory and/or sustainability reporting). With consideration to the more recent CDP data and historical data, Vermilion has applied the following thresholds when evaluating year-over-year changes in the context of this question:

- About the Same: < 10%
- Higher/Lower: 10 to 25%
- Much Higher/Lower: > 25%.

As a conventional oil and gas producer, Vermilion's operations do not typically involve the consumption of water (i.e. water withdrawals and discharges are generally in balance). Accordingly, in 2022 net water consumption was zero.

Facility reference number

Facility 2

Facility name (optional)

France Business Unit

Country/Area & River basin

France

Other, please specify

At this time, Vermilion's water accounting data is aggregated at the business unit level rather than river basin level. As such, all of the referenced water accounting metrics reflect business unit totals rather than river basin totals.

Latitude

44.3526

Longitude

1.073

Located in area with water stress

No

Oil & gas sector business division

Upstream

Total water withdrawals at this facility (megaliters/year)

12,982

Comparison of total withdrawals with previous reporting year

About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

411.5

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

12,562

Withdrawals from third party sources

8

Total water discharges at this facility (megaliters/year)

12,982

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

12,562

Discharges to third party destinations

419.5

Total water consumption at this facility (megaliters/year)

0

Comparison of total consumption with previous reporting year

About the same

Please explain

This is our fourth year of compiling data under the CDP framework. Water-related measurements, monitoring and reporting have been undertaken by Vermilion historically in other contexts (e.g. regulatory and/or sustainability reporting). With consideration to the more recent CDP data and historical data, Vermilion has applied the following thresholds when evaluating year-over-year changes in the context of this question:

- About the Same: < 10%
- Higher/Lower: 10 to 25%
- Much Higher/Lower: > 25%.

As a conventional oil and gas producer, Vermilion's operations do not typically involve

the consumption of water (i.e. water withdrawals and discharges are generally in balance). Accordingly, in 2022 net water consumption was zero.

W5.1a

(W5.1a) For the facilities referenced in W5.1, what proportion of water accounting data has been third party verified?

Water withdrawals – total volumes

% verified

Not verified

Please explain

Water withdrawals – volume by source

% verified

Not verified

Please explain

Water withdrawals – quality by standard water quality parameters

% verified

Not verified

Please explain

Water discharges – total volumes

% verified

Not verified

Please explain

Water discharges – volume by destination

% verified

Not verified

Please explain

Water discharges – volume by final treatment level

% verified

Not verified

Please explain

Water discharges – quality by standard water quality parameters

% verified

Not verified

Please explain

Water consumption – total volume

% verified

Not verified

Please explain

W6. Governance

W6.1

(W6.1) Does your organization have a water policy?

Yes, we have a documented water policy that is publicly available

W6.1a

(W6.1a) Select the options that best describe the scope and content of your water policy.

	Scope	Content	Please explain
Row 1	Company-wide	Description of business impact on water	Policy/position statement on water <input type="checkbox"/> We recognize water as a basic human right, and as a vital resource that is shared among many stakeholders in our communities <input type="checkbox"/> We are committed to protecting both the supply and the quality of water sources in our areas of operation, by: – Proactively preventing harm and supporting healthy surface and groundwater bodies – Reducing potable and freshwater usage to the lowest level practicable – Taking a lifecycle and circular economy approach to water, exploring opportunities to reuse and recycle products such as produced water

			<input type="checkbox"/> As part of this commitment, in 2021 -23 we are building on our existing water data reporting to benchmark our performance against our peers, and assess potential for next steps, including reductions
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W6.2

(W6.2) Is there board level oversight of water-related issues within your organization?

Yes

W6.2a

(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.

Position of individual or committee	Responsibilities for water-related issues
Board-level committee	<p>Sustainability is 1 of 6 strategic objectives in our long-range business plan. As such, the Board has responsibility for oversight of Vermilion’s sustainability performance, with Board committees providing additional expertise.</p> <p>Comprised of 5 independent directors, the Board’s Sustainability Committee (SC) provides targeted oversight of & advice for our approach, including: Sustainability Policy & long-range strategic plan; performance & progress on sustainability goals; id & mgmt of sustainability risks and opportunities; impact of sustainability & climate issues, including water, on business strategy, budgets & risk management; & communication of sustainability policies & performance. At least quarterly, the SC reviews management’s sustainability performance reports, which include ESG & climate risks, opportunities, activities & performance; environmental & social trends; & strategic community investment activities.</p> <p>The SC Chair reports to the Board on the SC’s work, including the Company’s performance & progress. Most members of the full Board attended SC meetings in 2022, & the Board also reviewed ESG thought leadership papers such as oversight frameworks, decarbonization pathways & managing the energy transition, from experts eg McKinsey, State Street & Kimmeridge Energy. The Board also oversees sustainability strategy & performance via the HSE Committee (environment & safety, risk management), Audit Committee (risk management), & GHR Committee (governance & people).</p> <p>The Board & SC use this info to ensure integration of sustainability & climate risks & opportunities, including water, into major decisions, such as long-range planning, budget and capital allocation, and mergers, acquisitions and divestments. In 2021 the Board reviewed the 10-year sustainability strategy for managing risks and opportunities identified under each strategy pillar of carbon, conservation (including</p>

	water) and community and in 2022 reviewed freshwater intensity peer benchmarking.
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W6.2b

(W6.2b) Provide further details on the board’s oversight of water-related issues.

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - all meetings	<p>Monitoring implementation and performance</p> <p>Overseeing acquisitions, mergers, and divestitures</p> <p>Overseeing major capital expenditures</p> <p>Reviewing and guiding annual budgets</p> <p>Reviewing and guiding business plans</p> <p>Reviewing and guiding corporate responsibility strategy</p> <p>Reviewing and guiding major plans of action</p> <p>Reviewing and guiding risk management policies</p> <p>Reviewing and guiding strategy</p> <p>Setting performance objectives</p>	<p>The Board’s primary responsibility is to foster the long-term success of Vermilion for all stakeholders, consistent with the Board’s responsibility to the shareholders to maximize shareholder value. The Board is also responsible to ensure management identifies the principal risks of Vermilion’s business and implements the appropriate systems to manage risks identified.</p> <p>In climate-related work in 2022, the Board and its Sustainability Committee followed its previous materiality assessment, climate scenario analysis and emission reduction target-setting by:</p> <ul style="list-style-type: none"> • Linking executive and employee compensation to climate concerns by adding targets for emission reduction, in addition to Asset Retirement Obligation (ARO) liability reduction, to the LTIP scorecard • Evaluating performance against our 2025 target to reduce Scope 1 emissions intensity by 15 to 20% by 2025 • Ensuring the Company developed a clear pathway in 2023 and 2024 to achieve Scope 1 and 2 net zero emissions by 2050 target, including a 2030 Scope 1 and 2 emission intensity reduction target • Receiving business unit updates on sustainability-related projects, including potential renewable fuel partnerships and projects utilizing end of life assets • Assessing freshwater use in our global operations, and ensuring water management plans for higher freshwater intensity assets are developed and/or maintained • Approving corporate lobbying activities to ensure alignment with our stated climate and other positions, including the Paris Agreement

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W6.2d

(W6.2d) Does your organization have at least one board member with competence on water-related issues?

	Board member(s) have competence on water-related issues	Criteria used to assess competence of board member(s) on water-related issues
Row 1	Yes	<p>Vermilion maintains a skills matrix to evaluate the skill set of the Board based on individual Director self-assessments, including with respect to sustainability skills and experience. The results are then evaluated for individual Directors and for the Board as a whole. The skills matrix helps us identify gaps in skills and is used when we search for new Directors. The GHR Committee reviewed the completed skills matrix and evaluations and is satisfied that the Board has the appropriate experience and skills to ensure the Board is performing well. The Board completed a discussion on the results with the objective of continuously improving Board effectiveness.</p> <p>Skills matrix: Our Board members have significant relevant experience in all facets of our business. All Board members are skilled in all of the areas within our matrix, which were updated to reflect additional sustainability-specific areas, including climate- and water-related issues. The matrix illustrates the skill set of our Board based on:</p> <ul style="list-style-type: none"> - senior executive experience in the area from a function, role and knowledge perspective and/or significant operational experience; and - some familiarity and specific experience. <p>All board members have senior executive experience in the Sustainability (ESG) criteria of:</p> <p>Management or executive experience with, or knowledge of, risks and opportunities related to a broad range of environment impacts, including climate-related issues such as emissions reduction, regulatory frameworks and renewable energy, and social impacts such as human rights, labour rights, community development and investment, and overall stakeholder engagement and communications.</p> <p>We also assess continuing education, which in 2022 included our directors taking courses or workshops on the Net Zero Transition, CCUS, climate change, ecosystems, environmental management, ESG, ESG strategy, energy transition and sustainability financing, purpose & profit and operationalizing ESG., many of which encompassed water-related issues.</p>

W6.3

(W6.3) Provide the highest management-level position(s) or committee(s) with responsibility for water-related issues (do not include the names of individuals).

Name of the position(s) and/or committee(s)

Chief Executive Officer (CEO)

Water-related responsibilities of this position

Assessing future trends in water demand
Assessing water-related risks and opportunities
Managing water-related risks and opportunities
Setting water-related corporate targets
Monitoring progress against water-related corporate targets

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

Organizational responsibility for sustainability & climate-related issues, including water, flows from the Board & its Sustainability Committee throughout the Company via our Executive Committee principal members: the President & CEO, Chief Financial Officer, VP Business Development, VP International & HSE, and VP North America. Our Executive Committee as a group is responsible to review & approve key financial, operational & strategic decisions. The Committee reports to the Board more frequently than quarterly & is responsible through its reporting lines for assessing, monitoring & managing climate issues including water use, regulatory changes, & weather impacts, etc. As part of the Executive Committee, the President & CEO has oversight of risks & opportunities pertaining to water such as current & emerging regulations, emerging technology, legal, market, company reputation & exposure to extreme weather events (e.g. drought).

Name of the position(s) and/or committee(s)

Chief Financial Officer (CFO)

Water-related responsibilities of this position

Assessing future trends in water demand
Assessing water-related risks and opportunities
Managing water-related risks and opportunities
Setting water-related corporate targets
Monitoring progress against water-related corporate targets

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

Organizational responsibility for sustainability & climate-related issues, including water, flows from the Board & its Sustainability Committee throughout the Company via our Executive Committee principal members: the President & CEO, Chief Financial Officer, VP Business Development, VP International & HSE, and VP North America. Our Executive Committee as a group is responsible to review & approve key financial, operational & strategic decisions. The Committee reports to the Board more frequently than quarterly & is responsible through its reporting lines for assessing, monitoring & managing climate issues including water use, regulatory changes, & weather impacts, etc. As part of the Executive Committee, the CFO has oversight of risks & opportunities pertaining to water such as current & emerging regulations, emerging technology, legal, market, company reputation & exposure to extreme weather events (e.g. drought) through their overall management of enterprise risk management.

Name of the position(s) and/or committee(s)

Chief Operating Officer (COO)

Water-related responsibilities of this position

Assessing future trends in water demand
Assessing water-related risks and opportunities
Managing water-related risks and opportunities
Setting water-related corporate targets
Monitoring progress against water-related corporate targets

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

Our VP North America and our VP International & HSE together replace the position of Chief Operations Officer and lead the operationalization of sustainability. They are both members of the Executive Committee, and thus have oversight of risks & opportunities pertaining to water with respect to current & emerging regulations, emerging technology, legal, market, company reputation & exposure to extreme weather events (e.g. drought). Both VPs attend the Sustainability and HSE Board Committee meetings. These committees meet at least three times per year, in addition to a full Board strategy meeting & quarterly Board meetings.

Name of the position(s) and/or committee(s)

Other, please specify
Vice President, Sustainability

Water-related responsibilities of this position

Assessing future trends in water demand
Assessing water-related risks and opportunities

Managing water-related risks and opportunities
Conducting water-related scenario analysis
Setting water-related corporate targets
Monitoring progress against water-related corporate targets
Managing public policy engagement that may impact water security

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

The VP Sustainability is a corporate function that reports to the President & is responsible for assessing & managing Sustainability (including water) risks & opportunities as part of developing & implementing sustainability strategy. This function leads a team that provides a Centre of Excellence approach, advising the business on all aspects of sustainability & reporting at least quarterly to the Board. The VP Sustainability focuses on integrating sustainability throughout our business, including identifying & managing associated risks & opportunities, particularly climate-related including water. The VP Sustainability briefs the Board's Sustainability Committee, which meets at least three times a year, in addition to a full Board strategy meeting &, as required, quarterly Board meetings.

Name of the position(s) and/or committee(s)

Business unit manager

Water-related responsibilities of this position

Assessing future trends in water demand
Assessing water-related risks and opportunities
Managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

Organizational responsibility for sustainability & climate-related risks & opportunities, including those related to water, flows from the Board to our President & CEO, & throughout the Company via our Executive Committee. Our business unit managers have responsibility for assessing & managing sustainability (including water) risks & opportunities in their regions, and they present to the Board on sustainability strategy, projects & progress in rotation, generally at least one per Sustainability Committee meeting. Each of our business units has also identified a Sustainability Lead, to support sustainability-related work. This work is aided by risk identification & management by BU public & government relations staff focusing on our external stakeholders.

Name of the position(s) and/or committee(s)

Other, please specify

Manager, Corporate HSE

Water-related responsibilities of this position

- Assessing future trends in water demand
- Assessing water-related risks and opportunities
- Managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

The Manager Corporate HSE is a corporate function that reports to the VP International & HSE, & is responsible for assessing & managing health safety & environmental (including water) risks & opportunities within Vermilion's operations. This function works closely with the corporate sustainability function, focused on integrating sustainability throughout our business, including identifying & managing associated risks & opportunities, particularly climate-related and including water-related, including risk of releases into water bodies, and freshwater use intensity. The Manager, Corporate HSE briefs the Board's HSE committee, which meets at least three times a year, in addition to a full Board strategy meeting &, as required, quarterly Board meetings.

W6.4

(W6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

	Provide incentives for management of water-related issues	Comment
Row 1	Yes	Our compensation approach is one program for all to incentivize staff at every level to work toward our strategic objectives, including climate-related issues. Compensation program elements include base salary & short & long-term incentives, which we believe strengthens our organizational alignment with shareholder expectations. Our objectives are: - ensuring our operations worldwide are sustainable under a range of commodity price environments & when changes occur in our workforce; - aligning compensation programs with our strategy to ensure prudent risk taking; - allowing us to attract & retain high-calibre employees that are important to our success - rewarding all employees & executives when their performance & the Company's performance is top quartile. We measure Company performance annually using our balanced scorecards, which include water-related measures such as releases (bonus) & ESG rating agency scores, including water management (long-term incentive plan)

W6.4a

(W6.4a) What incentives are provided to C-suite employees or board members for the management of water-related issues (do not include the names of individuals)?

	Role(s) entitled to incentive	Performance indicator	Contribution of incentives to the achievement of your organization's water commitments	Please explain
Monetary reward	Corporate executive team		<p>Employee & executive compensation is tied directly to performance targets, including those related to sustainability and climate, through our corporate performance scorecards. Achievements within the short-term incentive plan (STIP or bonus) & long-term incentive plan (LTIP) scorecards also help determine STIP & LTIP budgets overall.</p> <p>The 2022 corporate performance scorecards included both standard industry metrics & internal measures of performance which were compared to management plans approved by the Board. Our STIP scorecard (past year performance) includes a 10% weighting on HSE Performance, including water-related goals such as HSE inspections, compliance / regulatory inspections, and spills.</p>	<p>We believe there is a direct link between sustainability performance, including climate performance & overall business performance, & we expect sustainability performance to be a very significant factor in the long-term viability of our economic model. Our 2023 LTIP corporate performance scorecard includes a sustainability-specific measure to illustrate to our organization the importance of this measure & to incentivize all staff to focus on sustainability performance in their daily work, including measuring our emissions, ARO target performance and our performance relative to our peer group in 4 third-party sustainability rankings: S&P Global, MSCI, ISS and Sustainalytics, all of which include water questions. This holds a 10% weighting & applies to all employees & executives.</p>

Non-monetary reward	Corporate executive team		Recognition is provided to groups & individual employees & executives by managers, the executive committee &/or Board based on performance & project-specific successes. Our Extraordinary Effort recognition program also provides small monetary rewards when staff have contributed significantly to project success, including environmental/energy efficiency projects & the rollout of a future-forward assessment of business strategy in France.	
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W6.5

(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?

- Yes, direct engagement with policy makers
- Yes, trade associations
- Yes, funding research organizations

W6.5a

(W6.5a) What processes do you have in place to ensure that all of your direct and indirect activities seeking to influence policy are consistent with your water policy/water commitments?

Staff in our Sustainability, HSE, Communications, Community Investment & Investor Relations (IR) groups ensure that corporate guidance & direction relating to health, safety, environment & sustainability, including water, is passed effectively & consistently to the Business Units (BUs) & external parties. This responsibility extends to our BUs to ensure their activities & engagement support our sustainability strategy, including water. Our VP Sustainability regularly engages with BU leaders, VP Europe & our Public & Government Relations teams to ensure multi-directional communication on sustainability, including expectations & shared best practices, & consistency of external messaging. All external messaging is approved via our Disclosure Committee (President, CFO & VP IR). We are aware that trade & industry associations may represent their membership by advocating for government policy & regulations. We monitor this to ensure it fairly represents our position & the goals of the Paris agreement; if there are discrepancies between their position and ours, we engage with them to understand and influence the issue. We consider withdrawal of membership only if no improvement proves likely. To support this, we annually review all memberships to assess alignment, & provide our Executive Committee & Board Sustainability Cttee with a summary, including misalignment & recommendations, including on water.

W6.6

(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?

Yes (you may attach the report - this is optional)

 VEI-2022-Annual-Report.pdf

W7. Business strategy

W7.1

(W7.1) Are water-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	5-10	<p>Based on the results of our scenario analysis in 2019 and 2020, we reassessed and revitalized our business strategy. This included establishing Integrated Sustainability as 1 of 6 strategic objectives, with clear priorities set within the three areas of Carbon, Conservation (including Water, Abandonment & Reclamation, & Biodiversity) & Community.</p> <p>Within the Water objective, we established long-term tangible objectives to 2030, along with short-to mid-term commitments that included creating a low-carbon transition plan. We recognize water as a basic human right, and as a vital resource that is shared among many stakeholders in our communities, and we are committed to protecting both the supply and the quality of water sources in our areas of operation, by:</p> <ul style="list-style-type: none"> – Proactively preventing harm and supporting healthy surface and groundwater bodies, – Reducing potable and freshwater usage to the lowest level practical – Taking a lifecycle and circular economy approach to water, exploring opportunities to reuse and recycle products such as produced water. <p>As part of this commitment, in 2022-23 we are building on our existing water data reporting to benchmark our performance against our peers, and assess potential for</p>

			next steps, including reductions. Assessment of water issues, including water availability & pollution risk, is built into this planning through our enterprise risk management system.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	5-10	<p>Based on our Enterprise Risk Management system, our long-range sustainability-specific planning & business need, water-related issue mitigations are prioritized & completed that allow us to support healthy communities as well as augment our strong shareholder value & return. This includes:</p> <ul style="list-style-type: none"> • Water availability; • Water reporting & protection regulation changes by governments & regulators; • Water protection measures; • Reputational issues related to water protection & use; • Opportunities to view water, including produced water, from a circular economy perspective. <p>The results annually feed back into our risk/opportunity management process to ensure Vermilion has a sound data foundation to support responsible decisions in our operating areas. Detailed analysis of these risks, including potential impact, financial implications, management methods & cost of management, support our business strategy related to managing water.</p> <p>Example: taking a circular economy approach, we have expanded our geothermal-from-produced-water projects in France from 2 to 4 in 2021, providing heat to a spirulina (algae) production facility and a college. 1 of 4 of these projects is now creating revenue. This aligns with both water issues (using produced water rather than externally sourced water to maintain reservoir pressure) and energy issues (providing renewable energy option to our communities).</p>
Financial planning	Yes, water-related issues are integrated	11-15	<p>Our strategic long range business plan focuses on the economic impacts of production & commodity pricing levels. Assessment of water issues, including water availability & pollution risk, is built into this planning through our enterprise risk management system.</p> <p>Overall, we prioritize risk & opportunities based on the materiality, probability & potential impact to our operations; impact to the environment plus financial & strategic implications of identified climate change, including water-related, risks & potential project opportunities are also built into the ERM process. This</p>

			<p>includes identifying the financial impacts of water-related issues, such as water availability at each site, increased regulation in water protection zones such as more detailed environmental impact assessments, & potential clean-up costs if spills into water bodies occurred. Financial implications support prioritization & the resulting projects approved for development. We have identified cases related to water that either have or could impact operating expenditures: financial impact associated with regulation & taxation & impact from physical risks, including changes in temperature extremes, changes in precipitation, frequency & intensity of cyclones/storms, & rising sea levels. Example: we are participating in & funding a Rigs to Reef study with University of Western Australia, which could lead to recognition of undersea infrastructure as valuable ocean ecosystems while reducing ARO liabilities.</p>
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W7.2

(W7.2) What is the trend in your organization’s water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

Row 1

Water-related CAPEX (+/- % change)

44

Anticipated forward trend for CAPEX (+/- % change)

Water-related OPEX (+/- % change)

13

Anticipated forward trend for OPEX (+/- % change)

Please explain

The year-over-year spends are based on a cursory evaluation of Capex and Opex accounts and represent approximate values. Water related Capex expenditures are expected to increase in 2023, in line with our drilling priorities. Similar to 2022, water related OPEX expenses are also expected to increase in 2023.

W7.3

(W7.3) Does your organization use scenario analysis to inform its business strategy?

	Use of scenario analysis	Comment
Row 1	Yes	<p>In 2023, we augmented previous work with a new analysis of climate-related transition and physical risks. We have used them to inform our discussions on short, mid and long-term business strategy, along with risk identification and management.</p> <p>In our scenario analysis, our Executive Committee and Board reviewed an internally developed comparison of a diverse range of climate-related transition scenarios. We focused on changes in demand for oil and natural gas based on a Reference (business as usual) case and a Climate Policy (government support for reduced GHG emissions) case for Global, Advanced Economy and Emerging Economy scenarios.</p> <p>The analysis showed the potential for energy demand declines over a 5- to 15-year horizon, but also showed greater impacts on specific assets based on government policies, location and logistics (landlocked vs waterborne), and proximity to petrochemical or carbon capture and sequestration capacities.</p>

W7.3a

(W7.3a) Provide details of the scenario analysis, what water-related outcomes were identified, and how they have influenced your organization’s business strategy.

	Type of scenario analysis used	Parameters, assumptions, analytical choices	Description of possible water-related outcomes	Influence on business strategy
Row 1	Water-related	In our scenario analysis, our	We have identified several water-related risks associated	Mitigate - Strategy - As weather-related incidents

Climate-related	<p>Executive Committee and Board reviewed an internally developed comparison of a diverse range of climate-related transition scenarios. We focused on changes in demand for oil and natural gas based on a Reference (business as usual) case and a Climate Policy (government support for reduced GHG emissions) case for Global, Advanced Economy and Emerging Economy scenarios. Specific scenarios included the International Energy Agency (Stated Policy, Announced Pledges and Net Zero), Equinor (Walls, Bridges), and BP (New Momentum, Accelerated), along with reference</p>	<p>with climate change, including tropical cyclones, rising sea levels, changes in temperature extremes & changes in precipitation extremes, which could result in outcomes such as lack of water availability for our operations, flooding, drought or storm damage. Flooding could result in limited access to locations and poses a risk to our corporate headquarters (mitigated since flooding occurred 2013). Alternatively, drought could impact the availability of surface and/or groundwater, which Vermilion, in part, relies on for drilling and completion activities, and could negatively impact forecasted growth by increasing timelines and capital costs to bring new infrastructure onto production. This could also increase the likelihood of wildfires. In the Netherlands, we have assessed the potential risk associated with rising sea levels. This could impact our operations due to flooding, transportation difficulties, supply chain interruptions & the salinization of groundwater. The financial implications of a one-time event (e.g. wildfire, cyclone, flooding) are assessed on a case-specific basis, and are estimated to be greater than \$10MM. Examples include potential for physical damage to our assets (\$129MM – Wandoo B platform & \$21MM – Garijp plant), loss of production capacity (\$105MM – Wandoo field, \$54MM - Garijp field) & environmental clean-up (\$8MM– Garijp field). Note that</p>	<p>are out of Vermilion's control, we take all measures possible to ensure effective emergency response to extreme weather events, to ensure the protection of the health and safety of our workers, contractors and the public, the protection of the environment and limitation of financial impact of the event.</p> <ul style="list-style-type: none"> - In the case of a longer term extreme precipitation event or drought, Vermilion would implement water management programs to reduce our reliance on fresh water sources to limit the potential impact on operations. - In the event of a wildfire, we would eliminate water diversion and/or shut-in production to protect the health and safety of our workers, and the community. - We invest >\$0.5MM in emergency response training annually. <p>Mitigate – Strategy: Our robust asset integrity program maintains our facilities to appropriate design specifications (e.g. at Wandoo, to CAT 5 hurricane force). Via our Emergency Response Plan and business continuity plans, we also have detailed protocols for monitoring, preparing for, and responding to severe weather events.</p> <p>Transfer: We purchase insurance as a mitigative measure to reduce the financial impact associated</p>
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		<p>cases from Exxon, OPEC and the Energy Information Administration. The analysis showed the potential for energy demand declines over a 5- to 15-year horizon, but also showed greater impacts on specific assets based on government policies, location and logistics (landlocked vs waterborne), and proximity to petrochemical or carbon capture and sequestration capacities. For example, our analysis for the Reference case in advanced economies points to strong policy uptake in Europe and Industrialized Asia, as well as energy efficiency improvements in the residential and commercial</p>	<p>all costs are before mitigation (i.e. Insurance).</p>	<p>with damage to our assets due to severe weather events. Accept: We track evolving weather trends, such as cyclone season in Australia, wildfire seasons in Canada and the United States, and winter snowpack levels in Alberta.</p>
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		<p>sectors. Oil demand declines as energy transition policy momentum pushes road transport towards electrification, which is further displaced by biofuels after 2030. Efficiency gains reduce consumption, while demographic trends work against oil demand. Climate Policy scenarios see advanced economies driving a rapid uptake of renewables to a near full phase-out of combustible natural gas use, leading to a finale in the role of gas as a transition fuel. Gas use in 2050 is mostly consumed by the petrochemical sector and for hydrogen production. Both scenarios rely on</p>		
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		assumptions such as a continued improvement in advanced technology development for renewables (for example, battery improvement); and the addressing of supply chain human rights and environmental issues for critical minerals.		
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W7.4

(W7.4) Does your company use an internal price on water?

Row 1

Does your company use an internal price on water?

No, but we are currently exploring water valuation practices

Please explain

As part of the integrated sustainability objective within our business strategy, in 2021 we are building on our existing water data reporting to benchmark our performance against our peers, and assess potential for next steps, including reductions. This includes an assessment of natural capital accounting to identify its potential to support water valuation.

W7.5

(W7.5) Do you classify any of your current products and/or services as low water impact?

Products and/or services classified as low water impact	Primary reason for not classifying any of your current products and/or services as low water impact	Please explain

Row 1	No, but we plan to address this within the next two years	Other, please specify	As part of our overarching governance objectives, Vermilion is currently undertaking a systematic evaluation of the freshwater withdrawal intensity of our operations. This evaluation is intended to identify opportunities for improved water management practice, and will serve to further benchmark our performance in relation to peer companies in similar operating areas. Although not initially contemplated as a driver for the study, it is expected that the study findings may also identify areas (or regions) where we currently possess, or could develop, a strategic advantage in terms of low freshwater intensity production. The study has a target completion date of Q4 2023.
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W8. Targets

W8.1

(W8.1) Do you have any water-related targets?

No, but we plan to within the next two years

W8.1c

(W8.1c) Why do you not have water-related target(s) and what are your plans to develop these in the future?

	Primary reason	Please explain
Row 1	We are planning to introduce a target within the next two years	We are currently developing a water related target.

W9. Verification

W9.1

(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?

No, but we are actively considering verifying within the next two years

W10. Plastics

W10.1

(W10.1) Have you mapped where in your value chain plastics are used and/or produced?

	Plastics mapping	Please explain
Row 1	Not mapped – and we do not plan to within the next two years	

W10.2

(W10.2) Across your value chain, have you assessed the potential environmental and human health impacts of your use and/or production of plastics?

	Impact assessment	Please explain
Row 1	Not assessed – and we do not plan to within the next two years	

W10.3

(W10.3) Across your value chain, are you exposed to plastics-related risks with the potential to have a substantive financial or strategic impact on your business? If so, provide details.

	Risk exposure	Please explain
Row 1	No, risks assessed, and none considered as substantive	

W10.4

(W10.4) Do you have plastics-related targets, and if so what type?

	Targets in place	Please explain
Row 1	No – and we do not plan to within the next two years	

W10.5

(W10.5) Indicate whether your organization engages in the following activities.

	Activity applies	Comment
Production of plastic polymers	No	
Production of durable plastic components	No	
Production / commercialization of durable plastic goods (including mixed materials)	No	
Production / commercialization of plastic packaging	No	
Production of goods packaged in plastics	No	

Provision / commercialization of services or goods that use plastic packaging (e.g., retail and food services)	No	
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W11. Sign off

W-FI

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

W11.1

(W11.1) Provide details for the person that has signed off (approved) your CDP water response.

	Job title	Corresponding job category
Row 1	Vice President, Sustainability	Other, please specify Vice President, Sustainability

SW. Supply chain module

SW0.1

(SW0.1) What is your organization's annual revenue for the reporting period?

	Annual revenue
Row 1	

SW1.1

(SW1.1) Could any of your facilities reported in W5.1 have an impact on a requesting CDP supply chain member?

SW1.2

(SW1.2) Are you able to provide geolocation data for your facilities?

	Are you able to provide geolocation data for your facilities?	Comment
Row 1		

SW2.1

(SW2.1) Please propose any mutually beneficial water-related projects you could collaborate on with specific CDP supply chain members.

SW2.2

(SW2.2) Have any water projects been implemented due to CDP supply chain member engagement?

SW3.1

(SW3.1) Provide any available water intensity values for your organization's products or services.

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please indicate your consent for CDP to share contact details with the Pacific Institute to support content for its Water Action Hub website.

No

Please confirm below

I have read and accept the applicable Terms