



# ESG Performance Data (EPD) Report

2023



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# Land Acknowledgement

At MEG, we provide land acknowledgements to show gratitude and appreciation to the Indigenous communities who have lived on Turtle Island since time immemorial. Along with a deep understanding of its context, history and meaning, making a land acknowledgment is a small but important first step in the reconciliation process between all treaty people.

## Regional Land Acknowledgements

### Our Head Office is in Calgary

We acknowledge the traditional Treaty 7 territory of the Blackfoot Confederacy: Siksika, Kainai, Piikani, as well as the Îyâxe Nakoda and Tsuut’ina nations. We are situated on the land where the Bow River meets the Elbow River, and the traditional Blackfoot name of this place is “Mohkinstsis” which we now call the City of Calgary. We acknowledge that this territory is home to the Métis Nation of Alberta, Region 3 within the historical Northwest Métis homeland.

### Our Site Operations are at Christina Lake

We acknowledge Treaty 8 territory — the traditional and ancestral territory of the Cree and Dene. We acknowledge that this territory is home to the Métis Settlements and the Métis Nation of Alberta, Regions 1, 4, 5 and 6 within the historical Northwest Métis Homeland. We acknowledge the many First Nations, Métis and Inuit who have lived in and cared for these lands for generations.



Calgary, Alberta



Christina Lake, Alberta

# ESG Performance Data Table

Metric	Units	2018	2019	2020	2021	2022	GRI	SASB	Footnote
<b>Activity</b>									
Production of: (1) oil	bbl/day	87,731	93,082	82,441	93,733	95,338		EM-EP-000.A	
Production of: (2) natural gas	bbl/day	0	0	0	0	0		EM-EP-000.A	
Production of: (3) synthetic oil	bbl/day	0	0	0	0	0		EM-EP-000.A	
Production of: (4) synthetic gas	bbl/day	0	0	0	0	0		EM-EP-000.A	
Number of offshore sites	count	0	0	0	0	0		EM-EP-000.B	
Number of terrestrial sites	count	1	1	1	1	1		EM-EP-000.C	
<b>Economic</b>									
Steam-oil Ratio	bbl of steam/bbl of bitumen	2.19	2.22	2.32	2.43	2.36			
Common Shares Outstanding	millions	297	300	303	307	291			
Market capitalization	\$ millions	2,289	2,213	1,347	3,590	5,487	102-7		EC-1
Gross sales	\$ millions	2,771	3,976	2,301	4,397	6,343			EC-2
Adjusted funds flow	\$ millions	175	724	281	826	1,934			EC-3
Annual capital investments	\$ millions	622	198	149	331	376	201-1		EC-4
Operating expenses	\$ millions	210	238	232	309	420			EC-5
Total assets	\$ millions	8,410	7,866	7,224	7,593	7,033	102-7		
Royalties, taxes and fees	\$ millions	38	45	9	76	225	201-1		EC-6
Net debt to capitalization ratio		45	43	44	37	23	102-7		EC-7
Debt to capitalization ratio		49	45	45	42	26	102-7		EC-8

# ESG Performance Data Table

Metric	Units	2018	2019	2020	2021	2022	GRI	SASB	Footnote
<b>Climate Change &amp; GHG Emissions</b>									
Direct GHG emissions (Scope 1)	tonnes CO <sub>2</sub> e	2,140,537	2,304,490	2,113,450	2,439,106	2,368,081	305-1	EM-EP-110a.1	GHG-1, GHG-2
(1) Scope 1 by GHG Type - CO <sub>2</sub>	tonnes CO <sub>2</sub>	2,119,323	2,286,737	2,100,396	2,420,766	2,347,212	305-1		GHG-2
(2) Scope 1 by GHG Type - CH <sub>4</sub>	tonnes CH <sub>4</sub>	543	377	218	396	480	305-1		GHG-3
(3) Scope 1 by GHG Type - N <sub>2</sub> O	tonnes N <sub>2</sub> O	26	28	26	28	29	305-1		
<b>Amount of Gross Global Scope 1 Emissions from:</b>									
(1) flared hydrocarbons	tonnes CO <sub>2</sub> e		8,325	6,708	7,362	10,157	305-1	EM-EP-110a.2	GHG-4
(2) other combustion	tonnes CO <sub>2</sub> e		2,289,787	2,103,994	2,424,749	2,351,077	305-1	EM-EP-110a.2	GHG-1
(3) Process emissions	tonnes CO <sub>2</sub> e		N/A	N/A	N/A	N/A	305-1	EM-EP-110a.2	GHG-5
(4) other vented emissions	tonnes CO <sub>2</sub> e		867	512	4,510	2,502	305-1	EM-EP-110a.2	GHG-1, GHG-6
(5) fugitive emissions	tonnes CO <sub>2</sub> e		5,510	2,236	2,427	4,346	305-1	EM-EP-110a.2	GHG-1, GHG-7
Percentage methane	%		0.41	0.26	0.41	0.51		EM-RM-110a.1	GHG-8
Percentage covered under emission-limiting regulations	%		100	100	100	100		EM-MM-110a.1	GHG-9
Indirect GHG Emissions (Scope 2)	tonnes CO <sub>2</sub> e	20	0	16	0	383	305-2		GHG-10
Bitumen GHG Emissions Intensity	kg CO <sub>2</sub> e/bbl	56	57	59	60	58	305-4		
Electricity GHG Emissions Intensity	kg CO <sub>2</sub> e/MWh	353	350	351	361	362	305-4		

# ESG Performance Data Table

Metric	Units	2018	2019	2020	2021	2022	GRI	SASB	Footnote
<b>Water &amp; Wastewater Management</b>									
Total water withdrawal	thousand m <sup>3</sup>	1,134	653	660	736	622	303-3		W-6
<b>Water withdrawal by type:</b>									
(1) Non-saline water withdrawal	thousand m <sup>3</sup>	986	583	512	557	608	303-3	EM-EP-140a.1	W-1
(2) Saline water withdrawal	thousand m <sup>3</sup>	148	71	148	180	14	303-3		W-8
<b>Water withdrawal by source:</b>									
(1) Surface water withdrawal	thousand m <sup>3</sup>	134	53	33	79	81	303-3		W-2
(2) Groundwater withdrawal	thousand m <sup>3</sup>	1,000	600	626	657	540	303-3		W-3, W-7
Total Non-Saline Water Consumed	thousand m <sup>3</sup>		36	30	47	57	303-3	EM-EP-140a.1	W-12
Recycled Water - percentage recycled	%	93	96	96	96	97	303-3		W-5
Produced Water Volume	thousand m <sup>3</sup>	11,627	13,244	12,458	14,907	15,030	303-3	EM-EP-140a.2	W-4
(1) percentage discharged	%	0	0	0	0	0		EM-EP-140a.2	
(2) percentage injected	%	100	100	100	100	100		EM-EP-140a.2	
(3) percentage recycled	%	90	88	86	87	85		EM-EP-140a.2	
(4) hydrocarbon content in discharged water	tonnes	N/A	N/A	N/A	N/A	N/A		EM-EP-140a.2	W-13
Total Make-up water withdrawal:	thousand m <sup>3</sup>	905	543	568	593	622	303-3		
(1) Saline make-up water withdrawal	thousand m <sup>3</sup>	148	71	148	180	14	303-3		W-8
(2) Non-saline make-up water withdrawal	thousand m <sup>3</sup>	756	472	421	413	456	303-3		W-1, W-9
Total make-up water intensity	m <sup>3</sup> /m <sup>3</sup> oil production	0.18	0.10	0.12	0.11	0.09			W-10
Non-saline make-up water intensity	m <sup>3</sup> /m <sup>3</sup> oil production	0.15	0.09	0.09	0.08	0.08			W-11

# ESG Performance Data Table

Metric	Units	2018	2019	2020	2021	2022	GRI	SASB	Footnote
<b>Land &amp; Biodiversity</b>									
Active Commercial Footprint	hectares	1,094	1,087	1,085	1,103	1,104			LB-1
Total Land Undergoing Reclamation	hectares	93	100	104	97	103			LB-2
Cumulative Caribou Habitat Restoration	hectares	3,803	5,871	6,347	8,197	8,623			LB-3
Cumulative Caribou Habitat Restoration Program Spend	\$	1,241,882	1,664,711	1,965,999	2,268,152	2,622,267			LB-4
Percentage of: (1) proved and (2) probable reserves in or near sites with protected conservation status or endangered species habitat	%			84	84	84		EM-EP-160a.3	LB-5
<b>Spills</b>									
Reportable spill	count	5	4	8	5	3	306-3	EM-EP-160a.2	S-1, S-5
Total volume of reportable spills	m <sup>3</sup>	34	34	123	831	65	306-3	EM-EP-160a.2	S-1, S-2, S-4
Total volume of reportable spills - Hydrocarbon	m <sup>3</sup>	15	8	13	65	0	306-3	EM-EP-160a.2	S-1, S-4
Count of reportable spills - Hydrocarbon	count	2	2	2	2	1	306-3	EM-EP-160a.2	S-1
Total volume of reportable spills - Non-Hydrocarbon	m <sup>3</sup>	20	26	110	766	65	306-3	EM-EP-160a.2	S-1, S-4
Count of reportable spills - Non-Hydrocarbon	count	3	2	6	3	2	306-3		S-1
Total volume of hydrocarbons recovered	m <sup>3</sup>	-	-	-	-	-	-	EM-EP-160a.2	S-3
Reportable Spill Intensity	m <sup>3</sup> of volume released per 10 <sup>6</sup> m <sup>3</sup> OE Total Production	1.98	1.78	6.92	40	3.05	306-3		S-1, S-2, S-4

# ESG Performance Data Table

Metric	Units	2018	2019	2020	2021	2022	GRI	SASB	Footnote
<b>Air Quality &amp; Waste Management</b>									
NO <sub>x</sub> emissions	tonnes	917	846	797	990	989	305-7	EM-EP-120a.1	
NO <sub>x</sub> emissions intensity of oil production	kg/bbl	0.028	0.027	0.028	0.028	0.028	305-7		
SO <sub>2</sub> emissions	tonnes	361	845	709	582	545	305-7	EM-EP-120a.1	
SO <sub>2</sub> emissions intensity of oil production	kg/bbl	0.011	0.025	0.023	0.017	0.016	305-7	EM-EP-120a.1	
VOC emissions	tonnes	146	102	89	99	160	305-7	EM-EP-120a.1	AQ-1
VOC emissions intensity of oil production	kg/bbl	0.005	0.003	0.003	0.003	0.005	305-7		
Total Particulate Matter	tonnes	80	54	83	85	82	305-7	EM-EP-120a.1	
Total Particulate Matter intensity of oil production	kg/bbl	0.003	0.002	0.003	0.002	0.002	305-7		
Particulate Matter (PM <sub>10</sub> )	tonnes	-	39	46	49	48	305-7	EM-EP-120a.1	
Flared Gas	e <sup>3</sup> m <sup>3</sup>	790	1,598	958	1,100	2,253	305-7		AQ-2
Vented Gas	e <sup>3</sup> m <sup>3</sup>	47	55	30	332	148	305-7		AQ-3

# ESG Performance Data Table

Metric	Units	2018	2019	2020	2021	2022	GRI	SASB	Footnote
<b>Health and Safety</b>									
Total Recordable Incident Rate (TRIF)	# per 200,000 hours worked	0.43	0.26	0.22	0.31	0.46	403-9	EM-EP320a.1	HS-1
Total Recordable Injury Frequency Rate (TRIFR) - Employees	# per 200,000 hours worked	0.37	0.00	0.26	0.21	0	403-9		HS-2
Total Recordable Injury Frequency Rate (TRIFR) - Contractors	# per 200,000 hours worked	0.65	0.30	0.20	0.37	0.69	403-9		HS-1, HS-3
<b>Lost-time injury frequency:</b>									
a) employee	# per 200,000 hours worked	0.19	0.00	0.00	0.00	0.00	403-9	EM-EP320a.1	HS-1
b) contractor	# per 200,000 hours worked	0.19	0.15	0.20	0.00	0.1	403-9	EM-EP320a.1	HS-4
c) short-service employees	# per 200,000 hours worked	-	-	-	0.00	0.07	403-9	EM-EP320a.1	HS-5
<b>Recordable injury frequency:</b>									
a) employee	# per 200,000 hours worked	0.37	0.00	0.26	0.21	0.00	403-9	EM-EP320a.1	HS-2
b) contractor	# per 200,000 hours worked	0.65	0.30	0.20	0.37	0.69	403-9	EM-EP320a.1	HS-3
c) short-service employees	# per 200,000 hours worked	-	-	-	0.08	0.00	403-9	EM-EP320a.1	HS-1
<b>Fatalities:</b>									
a) employee	count	0	0	0	0	0	403-9	EM-EP320a.1	
b) contractor	count	0	0	0	0	0	403-9	EM-EP320a.1	
c) short-service employees	count	0	0	0	0	0	403-9	EM-EP320a.1	
<b>Near miss frequency rate:</b>									
a) employee	rate	46.00	26.31	16.01	14.37	3.37	403-9	EM-EP320a.1	HS-5
b) contractor	rate	7.18	5.13	2.95	4.23	0.89	403-9	EM-EP320a.1	HS-5
c) short-service employees	rate	-	-	-	-	-	403-9	EM-EP320a.1	HS-6
<b>Average hours of health, safety and emergency response training for:</b>									
a) employee	hours	-	-	-	-	-	403-9	EM-EP320a.1	
b) contract, and									
c) short-service employees									



# ESG Performance Data Table

Metric	Units	2018	2019	2020	2021	2022	GRI	SASB	Footnote
Critical Incident Risk Management									
Tier 1	# per 200,000 hours worked	0.00	0.09	0.22	0.20	0.00		EM-EP-540a.1	PSM-1
Tier 2	# per 200,000 hours worked	0.10	0.09	0.11	0.00	0.00			PSM-1
Serious Incident Frequency (SIF)	# per 200,000 hours worked	4.50	1.30	1.20	0.20	-			PSM-2
Indigenous Relations									
Indigenous business spend	\$	92,778,667	37,781,190	36,691,668	55,560,079	72,033,676			IR-1, IR-2
Percentage of 1) proved and 2) probable reserves in or near areas of conflict	%	-	-	0	0	0		EM-EP-210a.1	
Percentage of 1) proved and 2) probable reserves in or near Indigenous land	%	-	-	100	100	100		EM-EP-210a.2	IR-3
Number of non-technical delays	count	-	0	0	0	0		EM-EP-210b.2	IR-4
Duration of non-technical delays	days	-	0	0	0	0		EM-EP-210b.2	IR-4

# ESG Performance Data Table

Metric	Units	2018	2019	2020	2021	2022	GRI	SASB	Footnote
<b>Our People</b>									
Number of Employees Total	count	515	447	391	410	430	102-7		
Age by range - 30 years and younger	count	38	29	24	32	27	405-1		
Age by range - 30 - 50 years old	count	345	316	269	274	291	405-1		
Age by range - over 50 years old	count	132	102	98	104	112	405-1		
Women Total	%	22	21	19	20	21	102-8; 405-1		
Men Total	%	78	79	81	80	79	102-8; 405-1		
Women in Management	%	22	25	27	27	27	405-1		WF-1
Women in Senior Management	%	24	25	18	18	10	405-1		WF-2
Location of Employees - Office	count	280	217	188	197	211	102-7		
Location of Employees - Field	count	235	230	203	213	219	102-7		
New employee hires	%	7	9	8	7	11	401-1		
New employee hires - Male	%	82	67	67	73	65	401-1		
New employee hires - Female	%	18	33	33	27	35	401-1		
New employee hires Age by range - 30 years and younger	%	9	12	13	24	8	401-1		
New employee hires Age by range - 30 - 50 years old	%	47	67	54	62	77	401-1		
New employee hires Age by range - over 50 years old	%	44	21	33	14	15	401-1		
Employee Turnover Rate	%	7	22	21	4	7	401-1		
Ratio of permanent to temporary employee contracts		29:1	28:1	39:1	26:1	29:1			
<b>Community Investment</b>									
Total contribution to charitable, non-charitable and community groups	\$	3,511,891	2,949,918	1,761,263	1,839,959	2,955,718	201-1		CI-1

# SASB Index

Metric	SASB Code	MEG Disclosure
<b>Activity</b>		
Production of:		
(1) oil	EM-EP-000.A	"Activity" in EPD
(2) natural gas	EM-EP-000.A	"Activity" in EPD
(3) synthetic oil	EM-EP-000.A	"Activity" in EPD
(4) synthetic gas	EM-EP-000.A	"Activity" in EPD
Number of offshore sites	EM-EP-000.B	"Activity" in EPD
Number of terrestrial sites	EM-EP-000.C	"Activity" in EPD
<b>Reserves Valuation &amp; Capital Expenditures</b>		
Estimated carbon dioxide emissions embedded in proved hydrocarbon reserves	EM-EP-420a.2	We will evaluate and consider for future disclosure.
Amount invested in renewable energy, revenue generated by renewable energy sales	EM-EP-420a.3	\$0
Sensitivity of hydrocarbon reserve levels to future price projection scenarios that account for a price on carbon emissions	EM-EP-420a.1	We will evaluate and consider for future disclosure.
Discussion of how price and demand for hydrocarbons and/or climate regulation influence the capital expenditure strategy for exploration, acquisition, and development of assets	EM-EP-420a.4	<a href="#">2023 ESG Report</a> pg. 9
<b>Management of the Legal &amp; Regulatory Environment</b>		
Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	EM-EP-530a.1	"Relevant regulatory and/or legal risks are discussed throughout the report as relevant and can be found in the "Why is This Important" section for each ESG factor. <a href="#">2023 ESG Report</a> pg. 60
<b>Business Ethics &amp; Transparency</b>		
Percentage of		
(1) proved and	EM-EP-510a.1	Proved: 0%
(2) probable reserves in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	EM-EP-510a.1	Probable: 0%
Description of the management system for prevention of corruption and bribery throughout the value chain	EM-EP-510a.2	<a href="#">2023 ESG Report</a> pg. 60

# SASB Index

Metric	SASB Code	MEG Disclosure
<b>Greenhouse Gas Emissions</b>		
Direct GHG emissions (Scope 1):	EM-EP-110a.1	"Climate Change & GHG Emissions" in EPD
Percentage methane	EM-RM-110a.1	"Climate Change & GHG Emissions" in EPD
Percentage covered under emission-limiting regulations	EM-MM-110a.1	"Climate Change & GHG Emissions" in EPD
Amount invested in renewable energy, revenue generated by renewable energy sales	EM-EP-420a.3	\$0
<b>Amount of Gross Global Scope 1 Emissions from:</b>		
(1) flared hydrocarbons	EM-EP-110a.2	"Climate Change & GHG Emissions" in EPD
(2) other combustion	EM-EP-110a.2	"Climate Change & GHG Emissions" in EPD
(3) Process emissions	EM-EP-110a.2	"Climate Change & GHG Emissions" in EPD
(4) other vented emissions	EM-EP-110a.2	"Climate Change & GHG Emissions" in EPD
(5) fugitive emissions	EM-EP-110a.2	"Climate Change & GHG Emissions" in EPD
Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	EM-EP-110a.3	<a href="#">2023 ESG Report</a> pgs. 12-20



# SASB Index

Metric	SASB Code	MEG Disclosure
<b>Water Management</b>		
Total Non-Saline Water Withdrawal	EM-EP-140a.1	"Water & Wastewater Management" in EPD
Total Non-Saline Water Consumed	EM-EP-140a.1	"Water & Wastewater Management" in EPD
Percentage of Total fresh water withdrawn in regions with High or Extremely High Baseline Water Stress Management	EM-EP-140a.1	0% The WRI Aqueduct tool classifies overall water risk in the area as a Low to Medium Risk (1-2). MEG does not currently operate in water stressed areas. <a href="#">2023 ESG Report</a> pgs. 21-23
Percentage of total fresh water consumed in regions with High or Extremely High Baseline Water Stress Management	EM-EP-140a.1	0% The WRI Aqueduct tool classifies overall water risk in the area as a Low to Medium Risk (1-2). MEG does not currently operate in water stressed areas. <a href="#">2023 ESG Report</a> pg. 23
<b>Produced Water Volume:</b>	EM-EP-140a.2	"Water & Wastewater Management" in EPD
(1) percentage discharged	EM-EP-140a.2	"Water & Wastewater Management" in EPD
(2) percentage injected	EM-EP-140a.2	"Water & Wastewater Management" in EPD
(3) percentage recycled	EM-EP-140a.2	"Water & Wastewater Management" in EPD
(4) hydrocarbon content in discharged water	EM-EP-140a.2	"Water & Wastewater Management" in EPD
Percentage of hydraulically fractured wells for which there is public disclosure of all fracturing fluid chemicals used	EM-EP-140a.3	N/A MEG does not undertake hydraulic fracturing activities.
Percentage of hydraulically fractured sites where ground or surface water quality deteriorated compared to baseline	EM-EP-140a.4	N/A MEG does not undertake hydraulic fracturing activities

# SASB Index

Metric	SASB Code	MEG Disclosure
<b>Biodiversity Impacts</b>		
Description of environmental management policies and practices for active sites	EM-EP-160a.1	2023 ESG Report pgs. 25-27, "Land & Biodiversity" in EPD
<b>Reportable spill:</b>	EM-EP-160a.2	"Land & Biodiversity" in EPD
<i>Total volume of reportable spills</i>	EM-EP-160a.2	"Land & Biodiversity" in EPD
<i>Total volume of reportable spills – Hydrocarbon</i>	EM-EP-160a.2	"Land & Biodiversity" in EPD
<i>Count of reportable spills – Hydrocarbon</i>	EM-EP-160a.2	"Land & Biodiversity" in EPD
<i>Total volume of reportable spills – Non-Hydrocarbon</i>	EM-EP-160a.2	"Land & Biodiversity" in EPD
<i>Count of reportable spills – Non-Hydrocarbon</i>	EM-EP-160a.2	"Land & Biodiversity" in EPD
Total volume of hydrocarbons recovered	EM-EP-160a.2	"Land & Biodiversity" in EPD
Number and aggregate volume of hydrocarbon spills, volume in Arctic, volume impacting shorelines with ESI rankings 8-10, and volume recovered	EM-EP-160a.2	N/A MEG does not operate in the Arctic or near shorelines. This metric is not applicable to MEG.
<b>Percentage of:</b> (1) <i>proved and</i> (2) <i>probable reserves in or near sites with protected conservation status or endangered species habitat</i>	EM-EP-160a.3	"Land & Biodiversity" in EPD
<b>Air Quality</b>		
NO <sub>x</sub> emissions	EM-EP-120a.1	"Air Quality & Waste Management" in EPD
SO <sub>2</sub> emissions	EM-EP-120a.1	"Air Quality & Waste Management" in EPD
SO <sub>2</sub> emissions intensity of oil production	EM-EP-120a.1	"Air Quality & Waste Management" in EPD
VOC emissions	EM-EP-120a.1	"Air Quality & Waste Management" in EPD
Particulate Matter (PM <sub>10</sub> )	EM-EP-120a.1	"Air Quality & Waste Management" in EPD

# SASB Index

Metric	SASB Code	MEG Disclosure
Workforce Health & Safety		
Total Recordable Incident Rate (TRIF)	EM-EP320a.1	"Health & Safety" in EPD
Lost-time injury frequency:		
Employee	EM-EP320a.1	"Health & Safety" in EPD
Contractor	EM-EP320a.1	"Health & Safety" in EPD
Short-service employee	EM-EP320a.1	"Health & Safety" in EPD
Recordable injury frequency:		
Employee	EM-EP320a.1	"Health & Safety" in EPD
Contractor	EM-EP320a.1	"Health & Safety" in EPD
Short-service employee	EM-EP320a.1	"Health & Safety" in EPD
Fatalities:		
Employee	EM-EP320a.1	"Health & Safety" in EPD
Contractor	EM-EP320a.1	"Health & Safety" in EPD
Short-service employee	EM-EP320a.1	"Health & Safety" in EPD
Near miss frequency rate:		
a) employee b) contract, and c) short-service employees	EM-EP320a.1	"Health & Safety" in EPD
Average hours of health, safety and emergency response training for:		
a) employee b) contract, and c) short-service employees	EM-EP320a.1	"Health & Safety" in EPD
Discussion of management systems used to integrate a culture of safety throughout the exploration and production lifecycle	EM-EP-320a.2	2023 ESG Report pgs. 37-41, "Health & Safety" in EPD
Critical Incident Risk Management		
Tier 1	EM-EP-540a.1	"Critical Risk Management" in EPD
Description of management systems used to identify and mitigate catastrophic and tail-end risks.	EM-EP-540a.2	2023 ESG Report pgs. 37-41

# SASB Index

Metric	SASB Code	MEG Disclosure
<b>Security, Human Rights &amp; Rights of Indigenous People</b>		
Percentage of 1) <i>proved and</i> 2) <i>probable reserves in or near areas of conflict</i>	EM-EP-210a.1	"Indigenous Relations" in EPD
Percentage of 1) <i>proved and</i> 2) <i>probable reserves in or near Indigenous land</i>	EM-EP-210a.2	"Indigenous Relations" in EPD
Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict	EM-EP-210a.3	<a href="#">2023 ESG Report</a> pgs. 47-49
<b>Community Relations</b>		
Discussion of process to manage risks and opportunities associated with community rights and interests	EM-EP-210b.1	<a href="#">2023 ESG Report</a> pgs. 47-49
Number of non-technical delays	EM-EP-210b.2	"Community Relations" in EPD
Duration of non-technical delays	EM-EP-210b.2	"Community Relations" in EPD



# Footnotes

<b>EC-1</b>	Increase primarily due to the \$7.15 per share increase in the Corporation's share price as at December 31, 2022 compared to December 31, 2021.	<b>GHG-9</b>	In 2022 our operational GHG emissions were regulated under the Technology Innovation and Emission Reduction (TIER) Regulation which is an emissions intensity-based regime requiring large emitters to reduce their emissions intensity below a prescribed level and requires third party verification.	<b>W-7</b>	Approximately 20 per cent decrease relative to 2021 due to excess produced water returns lowering the demand for make-up withdrawals.
<b>EC-2</b>	The increase in gross sales is primarily due to the 41 per cent increase in blend sales price due to higher WTI price and a 15 per cent increase in sales volumes due to increased production.	<b>GHG-10</b>	We generate electricity through the use of cogeneration and sell excess supply to the Alberta electricity grid. Under normal conditions, MEG does not purchase power from the Provincial grid.	<b>W-8</b>	Approximately 90 per cent decrease relative to 2021 due to excess produced water returns lowering the demand for make-up water withdrawals.
<b>EC-3</b>	Increase primarily due to higher cash operating netback as a result of stronger WTI prices and increased blend sales.	<b>W-1</b>	Non-saline water withdrawal includes non-saline groundwater (defined by The Alberta Water Act (Ministerial) Regulation as water with total dissolved solids (TDS) content less than 4,000 milligrams per liter (mg/L) and surface water. Non-saline water includes groundwater used for oil production, groundwater used for potable water, and surface water used for industrial purposes such as dust suppression, oil sands exploration activities and drilling activities.	<b>W-9</b>	Approximately 10 per cent increase relative to 2021 due to temporary process disruption requiring the substitution of non-saline for saline make-up water.
<b>EC-4</b>	The increase in capital investment was due to turnaround work performed in the second quarter of 2022 on Phase 2B. No turnaround activities took place in 2021.	<b>W-2</b>	All water on the surface of the ground, including water in lakes, rivers, streams, wetlands and run-off collection ponds, natural or man-made. This water source is used for industrial purposes such as dust suppression, constructing ice roads and oil sands exploration and drilling activities. This water source is not used for oil production.	<b>W-10</b>	Approximately 20 per cent improvement relative to 2021 due to lower make-up water demand associated with excess produced water returns and low SOR.
<b>EC-5</b>	Increase primarily due to inflationary cost increases in combination with higher AECO natural gas prices and an increase in purchased natural gas volumes.	<b>W-3</b>	Groundwater is water beneath earth's surface and is present in pore spaces or fractures.	<b>W-11</b>	MEG continues to reduce water intensities through reservoir technology development such as eMSAGP, optimization of recycling technology and optimization projects such as plant modifications. In 2021, the non-saline water intensity remained at the lowest level in operational history as a result of these strategies.
<b>EC-6</b>	Higher royalties reflect a 44 per cent increase in Canadian dollar WTI prices which increased the royalty rate and gross royalties.	<b>W-4</b>	Produced water is composed mainly of injected steam and water from the reservoir that is produced back along with the bitumen. The majority of water used in our process to generate steam is recycled produced water. The remaining water (termed make-up water which includes saline and non-saline groundwater) comes from water sources located deep underground. These water sources are unsuitable for human consumption or for agricultural purposes. In 2022, produced water volumes increased from the year prior primarily due to increased bitumen production.	<b>W-12</b>	2022 volumes include exploration activity.
<b>EC-7</b>	Decrease due to the decrease in net debt as a result of 2022 debt payments.	<b>W-5</b>	Calculated in accordance with AER Industry Water Use Report. Recycled water is produced water previously returned from the reservoir and re-injected as a proportion of total make-up water; thus, measuring the ability to re-use produced water within the process. This is a measure of total produced water as a proportion of all non-saline, saline and produced water in.	<b>W-13</b>	MEG does not discharge produced water to the environment. All industrial runoff (i.e. resulting from precipitation) and surface water collected from developed sites must be tested prior to releasing to the surface environment in accordance with MEG's Environmental Operating Approval, the Water Act and the AER's Storage Requirements for the Upstream Petroleum Industry. These requirements ensure that relevant discharge criteria are met and no visible hydrocarbon sheen is present.
<b>EC-8</b>	Decrease due to the decrease in debt as a result of 2022 debt payments.	<b>W-6</b>	Approximately 15 per cent decrease relative to 2021 due to excess produced water returns lowering the demand for make-up withdrawals.	<b>LB-1</b>	MEG's Active Commercial Footprint per the 2022 Conservation and Reclamation Annual Report, reported to the Alberta Energy Regulator on an annual basis. The Commercial Footprint is derived from total of all hectares that are considered under construction and operational under MEG's EPEA approval.
<b>GHG-1</b>	Global Warming Potential from Fourth Assessment Report (AR4) applied.			<b>LB-2</b>	Inclusive of all areas that are under reclamation, meaning that no more work is required and the sites are revegetating in anticipation of applying for a reclamation certificate when the vegetation is sufficiently established. Hectares are moved to being considered permanently reclaimed after inspection and assessment of revegetation confirmation that the cover of native herbaceous and woody species exceed ground cover requirements, woody species meets stem count requirements in forested and peatland reclaimed disturbances, the cover of mosses meets reclamation criteria for peatlands, and noxious weeds are controlled. The reduction in hectares of land under reclamation in 2021 signifies that portions of land have been moved to "Permanently Reclaimed" status.
<b>GHG-2</b>	Scope 1 totals may not sum due to rounding.				
<b>GHG-3</b>	Approximately 20 per cent increase relative to 2021 primarily due to methodology refinement and fugitive releases.				
<b>GHG-4</b>	Approximately 40 per cent increase relative to 2021 due to intermittent process upsets resulting in additional flared volumes.				
<b>GHG-5</b>	There are no process emissions associated with our operations.				
<b>GHG-6</b>	Approximately 45 per cent decrease relative to 2021 when vented volumes were impacted by a single release event.				
<b>GHG-7</b>	Approximately 80 per cent increase relative to 2021 due to increased volume detection of leaks during routine emission surveys. All leaks are entered into a repair program once identified as part of MEG's fugitives management plan.				
<b>GHG-8</b>	Approximately 25 per cent increase relative to 2021 primarily due to methodology refinement and fugitive releases.				

# Footnotes

<b>LB-3</b>	Includes the cumulative hectares of caribou habitat created by linear disturbance restoration implementation. Per the Federal Recovery Strategy for the Woodland Caribou, land within 500 meters of an anthropogenic disturbance are considered a disturbed area when pertaining to caribou use. Conversely, whenever a linear disturbance is restored, the area within 500 meters on both side of the restored area are then considered as restored caribou habitat. This is how the hectares of restored caribou habitat are calculated along each kilometer of restored linear disturbances on the landscape.	<b>S-4</b>	The reportable spill intensity in 2022 was significantly lower than 2021 as there was a large volume event in 2021. There were less reportable spills, lower reportable spill volume, and higher production in 2022 contributing to lower overall spill intensity.	<b>IR-2</b>	"Indigenous business spend is calculated by taking the sum of MEG's gross spend with: (a) Community member-owned business – defined as business owned in whole or in part by an individual who self-identifies as Indigenous; plus (b) Community-owned business – defined as business owned in whole or in part by and Indigenous community; plus (c) Joint venture partnership – defined as an Indigenous business entering into a partnership with an individual self-identify as Indigenous or with an Indigenous community."
<b>LB-4</b>	Cumulative annual spend on caribou restoration, commencing with the 2017 spend; inclusive of planning, procurement, execution, reporting, and monitoring. This spend reflects both funding from MEG and federal government grants. Per MEG's ESG commitments, MEG will continue to spend a minimum of \$300k per year towards our caribou restoration program.	<b>S-5</b>	There was a 40 per cent decrease in reportable spills from 2021 to 2022.		
<b>LB-5</b>	Calculated by reporting how much of our commercial footprint is within the East Side Athabasca River caribou range, including an application of a 500 m buffer around all disturbances per the Canadian Federal Recovery Strategy for the Woodland Caribou. Proven and probable reserves do not necessarily dictate the surface disturbance locations of in situ oil sands industrial activities, so MEG has calculated this metric using the actual surface commercial footprint of our industrial site.	<b>AQ-1</b>	Approximately 60 per cent increase relative to 2021 due to increased volume detection of leaks during routine emission surveys. All leaks are entered into a repair program once identified as part of MEG's fugitives management plan.		
<b>S-1</b>	Includes spills that met the reporting threshold of a regulatory agency. A reportable spill does not indicate that the released material entered the environment or caused adverse effects.	<b>AQ-2</b>	Increase relative to 2021 due to intermittent process upsets resulting in additional flared volumes.	<b>IR-3</b>	In 2022, our Indigenous business spend increased due to overall increased expenditures and enhanced economic participation engagement. Regularly scheduled meetings with community business entities, internal Indigenous awareness training and presence at community events are cornerstones of our Indigenous business inclusion effort.
<b>S-2</b>	Totals may not sum due to rounding.	<b>AQ-3</b>	Approximately 55 per cent decrease relative to 2021, when vented volumes were impacted by a single release event.	<b>IR-4</b>	In 2020, MEG began tracking this metric with reference to the SASB Oil & Gas - Exploration and Production Standard. MEG uses the same definition of 'Indigenous Lands' as Article 33 of United Nations Declaration on the Rights of Indigenous People, which is land occupied by people who self-identify as Indigenous.
<b>S-3</b>	When a spill is identified, we respond promptly, using appropriate containment and clean up measures to mitigate any potential impact. We do not currently track volumes of hydrocarbon recovered.	<b>HS-1</b>	TRIF and TRIFR calculated by identifying the number of incidents multiplied by 200,000 manhours divided by total number of exposure hours.	<b>WF-1</b>	In 2019, MEG began tracking this metric with reference to the SASB Oil & Gas - Exploration and Production Standard. Non-technical delays defined by SASB as shutdowns and project delays including, but not limited to, those resulting from pending regulatory permits or other political delays, community or stakeholder resistance or protest, and armed conflict.
		<b>HS-2</b>	There were no employee recordable incidents in 2022.	<b>WF-2</b>	Management workforce includes employee workforce in the following management levels: Manager, Sr. Manager, Director, VP, SVP or C-suite.
		<b>HS-3</b>	Increase from 2021 to 2022 reflects an increase of 2 recordable contractor incidents.	<b>CI-1</b>	Senior Management workforce includes: Director, VP, SVP or C-Suite. Includes Community engagement, corporate donations, corporate matches to employee donations through MEGMatch, and grants through MEGVolunteers.
		<b>HS-4</b>	The 2022 LTIF reflects 1 contractor lost time incident.		
		<b>HS-5</b>	There was one lost time incident involving a short service worker in 2022 where a worker sustained an injury to their fingertip requiring sutures.		
		<b>HS-6</b>	MEG encourages reporting near misses of any severity from our workforce.		
		<b>PSM-1</b>	MEG does not currently track near misses for short-service workers.		
		<b>PSM-2</b>	Tier 1 and Tier 2 process safety events rates are classified per American Petroleum Institute (API) Recommended Practice 754 along with the Canadian Association of Petroleum Producers (CAPP) Process Safety Event Reporting guide.		
		<b>IR-1</b>	MEG no longer tracks SIF metrics.		

# TCFD Index

The Task Force on Climate-related Financial Disclosures (TCFD) has developed a voluntary, consistent, climate-related financial risk disclosure framework for companies to provide information to investors, lenders, insurers and other stakeholders. MEG is a supporter of TCFD.





Topic	Disclosure Focus Area	Recommended Disclosures	Source
Governance	Disclose the organization's governance around climate related risks and opportunities.	a) Describe the board's oversight of climate-related risk and opportunities.	<a href="#">ESG Report</a> Governance, Climate Change and Greenhouse Gas Emissions <a href="#">Management Information Circular 2023</a> Corporate Governance Practices, pages 53-70 <a href="#">Board of Directors Mandate</a> <a href="#">CDP Climate Response</a> (C1.1a) (C1.1b) (C1.2a) (C2.2)
		Describe management's role in assessing and managing climate-related risks and opportunities.	<a href="#">ESG Report</a> Governance, Climate Change and Greenhouse Gas Emissions <a href="#">Management Information Circular 2023</a> Corporate Governance Practices, page 53-70 <a href="#">CDP Climate Response</a> (C1.2) (C1.2a) (1.3a) (C2.2)
Strategy	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	<a href="#">ESG Report</a> Governance, Climate Change and Greenhouse Gas Emissions <a href="#">Annual Information Form 2022</a> » pages 15-20, 34-39, 56-62 <a href="#">CDP Climate Response</a> (C2.1a) (2.1b) (C2.2a) (C2.3) (C2.3a) (C2.4) (C2.4a)
		b) Describe the impact of climate related risks and opportunities on the organization's businesses, strategy, and financial planning.	<a href="#">ESG Report</a> Governance, Climate Change and Greenhouse Gas Emissions <a href="#">Annual Information Form 2022</a> » pages 15-20, 34-39, 56-62 <a href="#">CDP Climate Response</a> (C2.2a) (C2.3a) (C2.4a) (C3.1) (3.3) (3.4) (3.4a)
		c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	<a href="#">ESG Report</a> Climate Change and Greenhouse Gas Emissions <a href="#">CDP Climate Response</a> (3.2) (3.2a)

# TCFD Index

Topic	Disclosure Focus Area	Recommended Disclosures	Source
Risk Management	Disclose how the organization identifies, assesses, and manages climate-related risks.	a) Describe the board's oversight of climate-related risk and opportunities.	<b>ESG Report</b> ESG Materiality Assessment, Governance, Climate Change and Greenhouse Gas Emissions  <b>CDP Climate Response</b> (C2.1) (C2.2) (C2.2a)
		b) Describe management's role in assessing and managing climate-related risks and opportunities.	<b>ESG Report</b> ESG Materiality Assessment, Governance, Climate Change and Greenhouse Gas Emissions  <b>CDP Climate Response</b> (C2.1) (C2.2) (4.3) (C11) (C12)
		c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	<b>ESG Report</b> Governance, Climate Change and Greenhouse Gas Emissions  <b>CDP Climate Response</b> (C1.1b) (C1.2a) (C2.1) (C2.1a) (C2.1b) (C2.2) (C2.2a)
Metrics and Targets	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	a) Disclose the metrics used by the organization to assess climate related risks and opportunities in line with its strategy and risk management process.	<b>ESG Report</b> Climate Change and Greenhouse Gas Emissions  <b>CDP Climate Response</b> (C1.3) (C1.3a) (C4.2) (C4.2b) (C5) (C6) (C7) (C8) (C9) (C11)  Performance Data > Greenhouse Gas Emissions SASB Index > Greenhouse Gas Emissions  <b>Management Information Circular 2023</b> 2022 Compensation Performance, pages 35-40
		b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	<b>ESG Report</b> Climate Change and Greenhouse Gas Emissions,  <b>CDP Climate Response</b> (C5) (C6.1) (C6.3) (C6.5) (C7)  Performance Data > Greenhouse Gas Emissions SASB Index > Greenhouse Gas Emissions
		c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	<b>ESG Report</b> Climate Change and Greenhouse Gas Emissions,  <b>CDP Climate Response</b> (C4.1) (C4.1a) (C4.1b) (C4.2) (C4.2b) (C4.2c)  <b>Management Information Circular 2023</b> 2022 Compensation Performance, pages 35-40






# United Nations Sustainable Development Goals

UNSDG symbol	Targets	2022 Progress
<b>3</b> GOOD HEALTH AND WELL-BEING 	<p>Our ultimate goal is continuous improvement towards zero incidents and injuries at work and at home.</p>	<ul style="list-style-type: none"> <li>» Zero employee recordable or lost time injuries in 2022.</li> <li>» Invested in new Safety Leadership Development Training for supervisors leveraging advances in Behavioural Sciences.</li> <li>» Updated the policy to include our modernized loss-avoidance system: MEG's Operations Excellence Management System (OEMS).</li> <li>» Revised Greenhand Worker Program to recognize workers who are experienced in the hazards present in their trade, but who still may be new to specific hazards in our operating facility.</li> </ul>
<b>6</b> CLEAN WATER AND SANITATION 	<p>Maintain zero freshwater (potable) water use in thermal operations.</p> <p>Maintain in situ industry-leading (top decile) total make-up water use intensity, with non-saline make-up water use intensity less than 0.1m<sup>3</sup>/m<sup>3</sup> oil production.</p>	<ul style="list-style-type: none"> <li>» Zero fresh water used in thermal operations.</li> <li>» Maintained in situ industry leading total make-up water use intensity that was approximately 70 per cent below the industry average.</li> <li>» Achieved a historical low non-saline water use intensity of 0.08 m<sup>3</sup> /m<sup>3</sup> oil production, well below the target of 0.1.</li> <li>» Fresh water use intensity is less than half the in situ average<sup>(3)</sup>.</li> <li>» Commissioned new steam generation capacity and evaporator unit which reduced overall water disposal volumes while increasing production.</li> </ul>
<b>8</b> DECENT WORK AND ECONOMIC GROWTH 	<p>Rollout of Indigenous Awareness training to all employees by the end of Q1 2022.</p> <p>MEG will evaluate and implement opportunities to increase participation of Indigenous businesses and businesses that employ Indigenous peoples throughout our business.</p> <p>Prioritize and evaluate infrastructure equity opportunities with Indigenous groups.</p>	<ul style="list-style-type: none"> <li>» Delivered Indigenous Awareness Training for all employees and directors complete by end of Q1 2022. It is now a required component of employee onboarding.</li> <li>» Developed further Indigenous awareness training for select employees focused on economic reconciliation to drive the quantity and spend with Indigenous businesses.</li> <li>» Cumulative Indigenous business spend since 2007 is over \$1 billion.</li> <li>» Through the participation in the Pathways Alliance, MEG is exploring the possibilities of enhanced Indigenous economic participation.</li> </ul>
<b>10</b> REDUCED INEQUALITIES 	<p>We aspire to attain a 40 per cent Board composition of Diverse Persons by 2025.</p> <p>Source a diverse potential candidate pool when recruiting which is representative of the communities in which we operate.</p>	<ul style="list-style-type: none"> <li>» We met our Board Diversity targets significantly ahead of schedule. Women currently represent 33 per cent of the corporation's Board and 44 per cent of the Board are diverse persons. 11 per cent of Board members are Indigenous.</li> <li>» We established a DE&amp;I strategic plan that identifies specific actions in the next three years to drive Diversity, Equity &amp; Inclusion.</li> <li>» Established a self-identification process within our candidate process to gather a data-driven understanding of which talent we are attracting into our candidate pool.</li> </ul>

(3) Annual 2022 data as per the Alberta Energy Regulator ST53

# United Nations Sustainable Development Goals

UNSDG symbol	Targets	2022 Progress
<b>9</b> INDUSTRY, INNOVATION AND INFRASTRUCTURE  <b>13</b> CLIMATE ACTION 	<p>Targeting net zero GHG Emissions (scope 1 &amp; 2) by 2050.</p> <p>Medium-term target of a ~0.63 megatonnes per annum reduction in absolute GHG emissions (scope 1 &amp; 2) by YE 2030.</p> <p>Further deployment of subsurface technology, Evaluation of CCS opportunities, &gt;99 per cent methane conservation and year over year decrease in fugitive emissions.</p>	<ul style="list-style-type: none"> <li>» Founding member of the Pathways Alliance in 2021 and actively participated in the development of the consortium's CO<sub>2</sub> capture, transportation and storage scope and project development activities.</li> <li>» Experienced a slight increase in bitumen GHG intensity from the year prior due to increased production from new well pads.</li> <li>» Partially offset more pronounced intensity increases by commissioning new steam generating units designed for efficient fuel use, ongoing boiler maintenance, well re-drills to improve performance and the implementation of Autonomous Flow Control Devices that optimized overall production.</li> <li>» Methane conservation rates remained above 99.5 per cent.</li> <li>» Continued technical and economic evaluations of CCS including evaluation of local storage opportunities.</li> <li>» Supporting research into alternate bitumen uses with low Scope 3 emissions and development of new technology to convert energy from waste heat streams to zero emission power.</li> <li>» Maintained fugitive emissions through continued efforts of the internal taskforce which monitors and repairs equipment.</li> </ul>
<b>15</b> LIFE ON LAND 	<p>Strives to bring all abandoned wells to reclamation status within 5 years.</p> <p>Invest at least \$300,000 in annual caribou habitat restoration efforts between 2021 and 2025.</p>	<ul style="list-style-type: none"> <li>» Continued progress on the legacy assets reclamation program with the abandonment of seven additional wells. All seven are on track to receive reclamation status within the 5-year goal.</li> <li>» Utilized 61 wildlife crossings at MEG's Christina Lake Regional Project site to facilitate wildlife movement across our site.</li> <li>» Invested \$300,000 to complete 22 kilometers of linear disturbance restoration.</li> <li>» Since 2016, we have allocated \$2.6MM to caribou restoration.</li> <li>» Since the inception of the AER's Area Based Closure (ABC) program, MEG has exceeded the annual mandatory spend by 50 per cent through closure work.</li> <li>» 53 legacy gas well abandonments, 37 km of legacy gas pipelines abandoned, 59 legacy gas wells moved to reclamation status etc. since 2019.</li> </ul>

# Assurance Statements



## Independent practitioner's reasonable and limited assurance report on selected performance metrics in MEG Energy Corp.'s 2023 ESG Performance Data Report

### To the Directors of MEG Energy Corp. (the "Company" or "MEG")

We have undertaken a reasonable assurance engagement over the performance metrics outlined in the accompanying Schedule 1 (the "reasonable assurance subject matter") as presented in the Company's 2023 ESG Performance Data Report (the "2023 ESG Data Report") for the year ended December 31, 2022.

We have also undertaken a limited assurance engagement over the performance metrics outlined in the accompanying Schedule 2 (the "limited assurance subject matter") as presented in the Company's 2023 ESG Data Report, for the year ended December 31, 2022.

The reasonable assurance subject matter and the limited assurance subject matter were prepared by the Company's management in accordance with the criteria as outlined in the accompanying Schedule 1 and Schedule 2, as well as the corporate boundaries and policies as outlined in the Company's 2023 ESG Data Report (together, the "applicable criteria").

### Management's responsibility

Management is responsible for the preparation of the reasonable assurance subject matter and limited assurance subject matter in accordance with the applicable criteria. Management is also responsible for such internal control as management determines necessary to enable the preparation of the reasonable assurance subject matter and the limited assurance subject matter that are free from material misstatement, whether due to fraud or error.

### Our responsibility for reasonable assurance

Our responsibility is to express a reasonable assurance opinion on the reasonable assurance subject matter based on the evidence we have obtained. We conducted our reasonable assurance engagement in accordance with the Canadian Standard on Assurance Engagements 3410, *Assurance Engagements on Greenhouse Gas Statements*. This standard requires that we plan and perform this engagement to obtain reasonable assurance about whether the reasonable assurance subject matter is free from material misstatement.

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\*PwC\* refers to PricewaterhouseCoopers LLP, an Ontario limited liability partnership.

# Assurance Statements



Reasonable assurance is a high level of assurance, but is not a guarantee that an engagement conducted in accordance with this standard will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of users of our report. The nature, timing and extent of procedures selected depends on our professional judgment, including an assessment of the risks of material misstatement, whether due to fraud or error, and involves obtaining evidence about the preparation of the reasonable assurance subject matter in accordance with the applicable criteria.

Our reasonable assurance engagement included, among others, the following procedures performed:

- Made inquiries of management to obtain an understanding of the overall governance and internal control environment, risk management processes relevant to the data metrics in the reasonable assurance subject matter;
- Evaluated the appropriateness of quantification methodology and reporting policies used, and the reasonableness of estimates made by the Company;
- Analytical reviews and trend analysis of the reasonable assurance subject matter;
- Recalculation of the reasonable assurance subject matter;
- Obtained and inspected a sample of underlying documentation to support the reasonable assurance subject matter; and
- Evaluated the disclosure and presentation of the reasonable assurance subject matter.

We believe the evidence we obtained is sufficient and appropriate to provide a basis for our reasonable assurance opinion.

## **Our responsibility for limited assurance**

Our responsibility is to express a limited assurance conclusion on the limited assurance subject matter based on the evidence we have obtained. We conducted our limited assurance engagement in accordance with CSAE 3410, *Assurance Engagements on Greenhouse Gas Statements*, and Canadian Standards on Assurance Engagements 3000, *Attestation Engagements Other Than Audits or Reviews of Historical Financial Information*. These standards requires that we plan and perform this engagement to obtain limited assurance about whether the limited assurance subject matter is free from material misstatement.



# Assurance Statements



A limited assurance engagement involves performing procedures (primarily consisting of making inquiries of management and others within the entity, as appropriate, and applying analytical procedures) and evaluating the evidence obtained. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of users of our report. The procedures are selected based on our professional judgment, which includes identifying areas where the risks of material misstatement, whether due to fraud or error, in preparing the limited assurance subject matter in accordance with the applicable criteria are likely to arise.

Our limited assurance engagement procedures included, among others, the following procedures performed:

- Made inquiries of management to obtain an understanding of the overall governance and internal control environment, risk management processes relevant to the data metrics in the limited assurance subject matter;
- Analytical reviews and trend analysis of reporting data for the limited assurance subject matter;
- Obtained and inspected a limited sample of underlying documentation to support the limited assurance subject matter; and
- Considered the disclosure and presentation of the limited assurance subject matter.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement and, consequently, the level of assurance obtained is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

## **Our independence and quality management**

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

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

# Assurance Statements



## Inherent uncertainty

Non-financial data is subject to more inherent limitations than financial data, given both the nature and the methods used for the determining, calculating, sampling or estimating such data. Qualitative interpretations of relevance, materiality and the accuracy of data are subject to individual assumptions and judgments. Greenhouse gas quantification is subject to inherent uncertainty because of incomplete scientific knowledge used to determine emissions factors and the values needed to combine emissions of different gases.

## Opinion - Reasonable assurance

In our opinion, the reasonable assurance subject matter for the year ended December 31, 2022 is prepared, in all material respects, in accordance with the applicable criteria.

## Conclusion - Limited assurance

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the limited assurance subject matter for the year ended December 31, 2022 is not prepared, in all material respects, in accordance with the applicable criteria.

## Purpose of statement and restriction on use of our report

The reasonable assurance subject matter and the limited assurance subject matter have been prepared in accordance with the applicable criteria to assist the Company's management to report to the Board of Directors. As a result, the reasonable assurance subject matter and limited assurance subject matter may not be suitable for another purpose. Our report is intended solely for the Company. We acknowledge the disclosure of our report, in full only, by the Company at its discretion, without assuming or accepting any responsibility or liability to any third party in respect of this assurance report.

*PricewaterhouseCoopers LLP*

Chartered Professional Accountants

Vancouver, British Columbia  
September 8, 2023

# Assurance Statements



## Schedule 1 - The reasonable assurance subject matter

Performance metric	Level of Assurance	Criteria	Unit of Measure	2022 Value
<b>Direct Scope 1 GHG Emissions</b>	Reasonable	All KPIs included in the reasonable assurance subject matter are prepared in line with the requirements of:	t CO <sub>2</sub> e	2,368,081
<b>Direct Scope 1 CO<sub>2</sub> Emissions</b>	Reasonable	<ul style="list-style-type: none"> <li>Technology Innovation and Emissions Reduction ("TIER") Regulation; and</li> <li>GRI 305</li> </ul>	t CO <sub>2</sub>	2,347,212
<b>Direct Scope 1 CH<sub>4</sub> GHG Emissions</b>	Reasonable	In line with the requirements of the TIER and GRI 305, MEG chooses the operational control approach to determine the organizational boundaries of the GHG inventory. Under this approach, the following asset is included:	t CH <sub>4</sub>	480
<b>Direct Scope 1 N<sub>2</sub>O GHG Emissions</b>	Reasonable	<ul style="list-style-type: none"> <li>Christina Lake Regional Project (100% owned and operated).</li> </ul>	t N <sub>2</sub> O	29
<b>Indirect Scope 2 GHG Emissions</b>	Reasonable	Emission factors used to calculate scope 1 emissions and scope 2 emissions were used from the Environment Canada National Inventory Report.	t CO <sub>2</sub> e	383

# Assurance Statements



## Schedule 2 - The limited assurance subject matter

Performance metric	Level of Assurance	Criteria	Unit of Measure	2022 Value
Bitumen GHG intensity	Limited	GRI 305-4	kg CO <sub>2</sub> e / bbl	58
Electricity GHG intensity	Limited	GRI 305-4	kg CO <sub>2</sub> e / MWh	362
Indigenous Business Spend	Limited	Indigenous business spend is calculated by taking the sum of MEG's gross spend with: (a) Community member-owned business - defined as businesses owned in whole or in part by an individual who self-identifies as Indigenous; plus (b) Community-owned businesses - defines as businesses owned in whole or in part by an Indigenous community; plus (c) Joint venture partnership - defined as an Indigenous or non-Indigenous business entering into a partnership with an individual self-identifying as Indigenous or with an Indigenous community.	Canadian Dollars	72,033,676
Active Commercial Footprint	Limited	MEG's Active Commercial Footprint per the 2022 Conservation and Reclamation Annual Report, reported to the Alberta Energy Regulator on an annual basis. The Commercial Footprint is derived from the total of all hectares that are considered under construction and operational under MEG's Environment Protection and Environment Act approval.	hectares	1,103.50
Total Land Undergoing Reclamation	Limited	Inclusive of all areas that are under reclamation, meaning that no more work is required, and the sites are revegetating in anticipation of applying for a reclamation certificate when the vegetation is sufficiently established. Hectares are moved to being considered permanently reclaimed after inspection and assessment of revegetation confirmation that the cover of native herbaceous and woody species exceed ground cover requirements, woody species meets stem count requirements in forested and peatland reclaimed disturbances, the cover of mosses meets reclamation criteria for peatlands, and noxious weeds are controlled.	hectares	102.6

# Glossary of Terms & Abbreviations

The terms referenced in this glossary reflect their meaning as used by MEG Energy and the in situ thermal oil industry.

Term/Abbreviations	Definition
ABC	Area Based Closure (ABC) is a voluntary, collaborative initiative designed to encourage timely and efficient movement of inactive oil and natural gas infrastructure through the closure process, from abandonment to reclamation certification.
AER	Alberta Energy Regulator
API	American Petroleum Institute
bbls	Barrels of petroleum product. Also often expressed as bpd for barrels per day.
Bitumen	A naturally occurring viscous mixture consisting mainly of pentanes and heavier hydrocarbons. Its viscosity is greater than 10,000 milliPascal seconds (centipoise) measured at original temperature in the reservoir and atmospheric pressure, on a gas-free basis. Crude bitumen may contain sulphur and other non-hydrocarbon compounds.
Bitumen Intensity	greenhouse gas emissions per barrel of bitumen produced (reported in kg CO <sub>2</sub> e/bbl)
Board or Board of Directors	The board of directors of the Corporation.
Christina Lake Project, Christina Lake Regional Project, CLRP	MEG's in situ thermal energy project located in the Province of Alberta as described in greater detail under the heading "Christina Lake Project."
CDP	Carbon Disclosure Project
Cogeneration	A process that uses heat generated from clean burning natural gas to produce both steam and electricity. MEG uses the steam and a portion of the electricity generated in its operations and sells the excess power as a lower-carbon energy source to the Alberta grid.
Diluent	Lighter viscosity petroleum products that are used to dilute bitumen for transportation in pipelines.
Diverse Person	Includes, but is not limited to, women, racialized people, Indigenous people, individuals who identify as LGBTQ2S+, and people with disabilities.
eMSAGP	The Corporation's proprietary reservoir technology of enhanced Modified Steam and Gas Push, which involves the injection of non-condensable gas into the SAGD reservoir.
ESG	Environmental, Social, and Governance
ERM	Enterprise Risk Management
Fresh Water	Any surface water (e.g., lakes, rivers, streams and wetlands) or shallow groundwater from aquifers less than 150m deep. This is consistent with the definition of high-quality non saline water (fresh water) used by the Alberta Energy Regulator in Directive 81.
GHG	greenhouse gas
Groundwater	Water beneath earth's surface and is present in pore spaces or fractures.
In situ	"In place" and, when referring to oil sands, means a process for recovering bitumen from oil sands by means other than surface mining, such as SAGD.
LTIF	Lost Time Injury Frequency
Management	The executive officers of the Corporation (as a noun)(as per AIF.)
McMurray Formation	A succession of sands and shale deposited in a fluvial estuarine environment that developed into a major valley that was cut into Devonian-aged limestone within the Cretaceous-aged Mannville Group.
MW	A unit of electrical power to measure the generating capability of a generating station, 1 million Watts equal 1 MW.
NO <sub>2</sub>	Nitrogen Dioxide
Non-Saline Water	Water having total dissolved solids content of 4,000 mg/L or less.

# Glossary of Terms & Abbreviations

Term/Abbreviations	Definition
NO <sub>x</sub>	Nitrogen Oxide. NO <sub>x</sub> is produced from the reaction of nitrogen and oxygen gases in the air during combustion.
Oil Sands	Deposits containing a mixture of bitumen, sand and water.
Phase 2B	The third phase of the Corporation's Christina Lake Project which commenced production in 2013 with an initial bitumen production design capacity of approximately 35,000 bbls/d.
PM	Particulate matter (PM) is made of solid particles and liquid droplets in the air.
Probable reserves	Are those additional reserves that are less certain to be recovered than proved reserves. It is equally likely that the actual remaining quantities recovered will be greater or less than the sum of the estimated proved plus probable reserves.
Produced Gas	Gas that is produced from the reservoir through the bitumen production process.
Produced Water Recycle	Proportion of the water that is produced in association with hydrocarbon production and is recycled for the purpose of re-injection and further bitumen recovery.
PSE	Process Safety Events
PSM	Process Safety Management
Reclamation	The return of disturbed surface land forms and vegetation to a state similar to that before industrial activity took place.
Reserves	Are estimated remaining quantities of oil and natural gas and related substances anticipated to be recoverable from known accumulations, as of a given date, based on: <ul style="list-style-type: none"> <li>(i) analysis of drilling, geological, geophysical and engineering data;</li> <li>(ii) the use of established technology; and</li> <li>(iii) specified economic conditions, which are generally accepted as being reasonable. Reserves are classified according to the degree of certainty associated with the estimates.</li> </ul>
Recycled water	Water that is reused within the facility for more than one purpose. See produced water recycle.
Reservoir	A subsurface body of rock having sufficient porosity and permeability to store and transmit fluids.
RIF	Recordable Injury Frequency
Saline Water	The Alberta Water Act (Ministerial) Regulation defines saline groundwater as water with total dissolved solids (TDS) content exceeding 4,000 mg/L. Also referred to as brackish water.
SAGD	steam assisted gravity drainage, an in situ process used to recover bitumen from oil sands.
SIF	Serious Incident Frequency
SO <sub>2</sub>	Sulfur dioxide. SO <sub>2</sub> is a colourless gas or liquid with a strong, choking odor. It is produced from the burning of fossil fuels (coal and oil.)
SOR	Steam to Oil Ratio
Steam to Oil Ratio	The ratio of steam required to produce bitumen in equivalent units.
Surface Water	All water on the surface of the ground, including water in lakes, rivers, streams, wetlands and run-off collection ponds, natural or man-made. Note: surface water can be saline (TDS > 4,000 mg/L).
Sweet Natural Gas	Natural gas (primarily methane) that contains very little or no hydrogen sulphide.
TRIF	Total Recordable Incident Rate
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
VOC	Volatile organic compounds are compounds that have a high vapor pressure and low water solubility.
\$	dollars (Canadian)



# Glossary of Terms & Abbreviations

Term/Abbreviations	Definition
bbl	Barrel
bbls	Barrels
bbls/d	barrels per day
boe	barrels of oil equivalent (on the basis of one being equal to one barrel of oil or six Mcf of natural gas)
CH <sub>4</sub>	methane
CO <sub>2</sub> e	carbon dioxide equivalents
OE	oil equivalent
M\$	thousand dollars (Canadian)
Mbbls	thousand barrels
Mbbls/d	thousand barrels per day
Mcf	thousand cubic feet
MM\$	million dollars (Canadian)
MMbbls	million barrels
MMbbls/d	million barrels per day
MWh	mega-watt hour
NO <sub>x</sub>	nitrogen oxides
PM	particulate matter
SO <sub>2</sub>	sulphur dioxide
Tcf	trillion cubic feet
VOC	volatile organic compound

# Forward-Looking Information

This report contains forward-looking information within the meaning of applicable securities laws. This forward-looking information is identified by words such as “anticipate”, “believe”, “could”, “drive”, “expect”, “estimate”, “focus”, “forward”, “future”, “may”, “on track”, “outlook”, “plan”, “position”, “potential”, “priority”, “should”, “strategy”, “target”, “will”, “would” or similar expressions and includes statements about future outcomes, including but not limited to: the Corporation’s purpose of supplying the world with ethical and responsible energy, while generating long-term value for all stakeholders; the Corporation’s business strategy, focus and future plans; the impact of the Corporation’s proprietary technologies on the Corporation’s energy and water use, capital and operating costs and GHG emissions; the Corporation’s reserves estimates and reserves life index; the Corporation’s belief that its actions relating to United Nations Sustainable Development Goals contribute to the 2023 global development priorities; the Corporation’s long-term target of achieving net zero GHG (Scope 1 and Scope 2) by 2050; the Corporation’s mid-term target of reducing our absolute GHG emissions (Scope 1 and Scope 2) by 0.63 megatonnes per annum by year-end 2030; the Corporation’s ability to conserve greater than 99.6 per cent of methane; the Corporation’s fresh water use intensity; the Corporation’s diversity, equity & inclusion targets and efforts; the skillset of the Corporation’s board members; the Corporation’s ability to maintain safe operations to ensure continuity of its operations, and increasing demand for energy worldwide; the Corporation’s expectations regarding the implementation of technologies to reduce emissions intensities and actions to address climate change impacts; the Corporation’s ability, in connection with the Pathways to Net Zero initiative, to reach net zero GHG emissions by 2050; the intention of the Pathways Alliance to build a major carbon capture usage and storage trunkline and related infrastructure to achieve net zero emissions

in oil sands production; the Corporation’s work to advance climate-related targets and technologies, the Corporation’s statements regarding climate-related opportunities; the Corporation’s climate scenario analysis; the Corporation’s support of the Paris Agreement; the Corporation’s expectations regarding its low decline assets, sustainability business model and opportunities for growth; the Corporation’s commitment to transparency, accountability and continuous improvement; the Corporation’s approach to ESG, including its foundational commitments to business model resilience and ESG governance; the Corporation’s belief regarding Canadian environmental regulation and ethical standards governing energy projects; the Corporation’s expectations regarding its business model resiliency and ability to generate attractive returns and integrate ESG matters into its business strategies to ensure value creation; the Corporation’s expectations regarding innovation and driving changes to improve capital efficiencies and reduce its cost structures, actively assess carbon capture and storage opportunities, implement digital technologies such as automation and artificial intelligence; the Corporation’s stakeholder engagement activities, including relationships with local communities and Indigenous peoples and its actions to meaningfully advance reconciliation; the Corporation’s expectations regarding prioritizing safety, minimizing environmental impacts, bringing action on climate change and its commitment to an inclusive and diverse workforce; the Corporation’s ESG priorities, ESG oversight and accountability, performance goals and targets to drive continuous improvement; the Corporation’s focus on ESG disclosure, including further alignment with the industry’s SASB standard and the recommendations of TCFD; the Corporation’s commitment to health, safety and environment and impact of its HSE Policy and Operational Excellence Management System; the Corporation’s actions regarding the United Nations Sustainable

Development Goals; the Corporation’s commitment to strong corporate governance and delivering value to all stakeholders, including shareholders, employees, customers, suppliers and communities in which the Corporation operates, by prioritizing transparency, accountability, ethical conduct, and respect in the workplace; the participation by the Corporation’s board members in continuing education programs to advance skillsets and adapt to changing conditions; the Corporation’s ESG strategy, including Board oversight and management accountabilities; the Corporation’s approach to risk management, including the including of ESG related risk and opportunities in the development of the Corporation’s strategy; the Corporation’s approach to executive compensation and ability to attract and retain talented individuals; the alignment of executive compensation and the Corporation’s ESG priorities; the Corporation’s intention to strengthen the alignment of its disclosures with TCFD recommendations; the Corporation’s belief that it is well-positioned to seize climate-related opportunities and play a role in addressing climate change; the Corporation’s ability to enhance its position as a sustainable low-cost producer while achieving net zero emissions and creating long-term value for its stakeholders; the Corporation’s ability to advance innovative technology to drive carbon efficiencies and assess opportunities to achieve net zero emissions from its oil sands operations; the Corporation’s expectations regarding actions of governments, industries and financial institutions to support the development of carbon reduction technologies; the Corporation’s expectations regarding the costs associating with mitigating the impact of climate change in its business strategy; the Corporation’s expectations regarding its path to net zero by 2050; the Corporation’s expectations regarding potential innovative mitigative strategies required to meet its ambitious GHG emissions goals and targets; the Corporation’s water conservation

targets; the Corporation's expectations regarding the contribution of its mechanical vapour compressor to further reduction in its make-up water requirements and disposal; the Corporation's approach to land and biodiversity; the Corporation's commitment to building strong relationships with Indigenous communities and identifying opportunities for greater economic participation in its operations to meaningfully advance reconciliation; and the Corporation's focus on creating a safer workplace through robust risk identification and reduction programs and its ultimate goal of zero incidents and injuries at work and home. Such forward-looking information is based on management's expectations and assumptions regarding future growth, results of operations, production, future capital and other expenditures, competitive advantage, plans for and results of drilling activity, environmental matters, and business prospects and opportunities.

Forward-looking information contained in this report is based on management's expectations and assumptions regarding, among other things: future crude oil, bitumen blend, natural gas, electricity, condensate and other diluent prices, differentials, the level of apportionment on the Enbridge mainline system, foreign exchange rates and interest rates; the recoverability of the Corporation's reserves and contingent resources; the Corporation's ability to produce and market production of bitumen blend successfully to customers; future growth, results of operations and production levels; future capital and other expenditures; revenues, expenses and cash flow; operating costs; reliability; anticipated sources of funding for operations and capital investments; plans for and results of drilling activity; the regulatory framework governing royalties, land use, taxes and environmental matters, including federal and provincial climate change policies, in which the Corporation conducts and will conduct its business; and business prospects and opportunities. By its nature, such forward-looking information

involves significant known and unknown risks and uncertainties, which could cause actual results to differ materially from those anticipated. These risks and uncertainties include, but are not limited to, risks and uncertainties related to: the oil and gas industry, for example, the securing of adequate access to markets and transportation infrastructure and the commitments therein; the availability of capacity on the electricity transmission grid; the uncertainty of reserve and resource estimates; the uncertainty of estimates and projections relating to production, costs and revenues; health, safety and environmental risks, including public health crises, such as the COVID-19 pandemic, and any related actions taken by governments and businesses; legislative and regulatory changes to, amongst other things, tax, land use, royalty and environmental laws; the cost of compliance with current and future environmental laws, including climate change laws; risks relating to increased activism and public opposition to fossil fuels; assumptions regarding and the volatility of commodity prices, interest rates and foreign exchange rates; commodity price, interest rate and foreign exchange rate swap contracts and/or derivative financial instruments that the Corporation may enter into from time to time to manage its risks related to such prices and rates; timing of completion, commissioning, and start-up, of the Corporation's turnarounds; the operational risks and delays in the development, exploration, production, and the capacities and performance associated with the Corporation's projects; the Corporation's ability to reduce or increase production to desired levels, including without negative impacts to its assets; the Corporation's ability to finance sustaining capital expenditures; the Corporation's ability to maintain sufficient liquidity to sustain operations through a prolonged market downturn; changes in credit ratings applicable to the Corporation or any of its securities and changes in general economic, market and business conditions. Although the Corporation

believes that the assumptions used in such forward-looking information are reasonable, there can be no assurance that such assumptions will be correct. Accordingly, readers are cautioned that the actual results achieved may vary from the forward-looking information provided herein and that the variations may be material. Readers are also cautioned that the foregoing list of assumptions, risks and factors is not exhaustive. Further information regarding the assumptions and risks inherent in the making of forward-looking statements can be found in the Corporation's Management Discussion and Analysis and its Annual Information Form, along with the Corporation's other public disclosure documents. Copies of the AIF and the Corporation's other public disclosure documents are available through the SEDAR+ website at [www.sedarplus.ca](http://www.sedarplus.ca).

The forward-looking information included in this report is expressly qualified in its entirety by the foregoing cautionary statements. Unless otherwise stated, the forward-looking information included in this report is made as of the date of this report and the Corporation assumes no obligation to update or revise any forward-looking information to reflect new events or circumstances, except as required by law. The Corporation's common shares are listed on the Toronto Stock Exchange under the symbol "MEG".

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## Stock Exchange Listing

MEG Energy Corp. Shares are traded on the Toronto Stock Exchange under the symbol MEG



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