



## Welcome to your CDP Climate Change Questionnaire 2020

### C0. Introduction

#### C0.1

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

Core Laboratories is a limited liability company incorporated in The Netherlands and publicly traded in the United States on the New York Stock Exchange and in The Netherlands on the Euronext Amsterdam stock exchange. We were established in 1936 and are one of the world’s leading providers of proprietary and patented reservoir description and production enhancement services and products to the oil and gas industry. These services and products are directed toward enabling our clients to improve reservoir performance and increase oil and gas recovery from their producing fields. We continue to develop new technologies that Complement our existing services and products, and we disseminate these technologies throughout our global network. We have over 70 offices in more than 50 Countries and have approximately 3,800 employees. Reservoir Description: To maximize the production and total recovery of hydrocarbons, oil companies must have a complete understanding of the reservoir rocks and fluids present in their producing fields. Core Laboratories is the only global provider of services that characterize the porous reservoir rock and all three reservoir fluids. Production Enhancement: Includes services and products relating to reservoir well completions, perforations, stimulations and production. We provide integrated services to evaluate the effectiveness of well completions and to develop solutions aimed at increasing the effectiveness of enhanced oil recovery projects. Core Laboratories has taken extensive measures to ensure the services, products and data provided by all of our worldwide locations are of the highest quality and integrity. Our commitment to applying and developing new technologies to optimize reservoir performance is unsurpassed in the oilfield service industry. This commitment to technology and to our clients’ bottom line makes Core Laboratories, The Reservoir Optimization Company TM.

#### C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
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Reporting year	January 1, 2019	December 31, 2019	Yes	2 years
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## C0.3

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

- Australia
- Belgium
- Canada
- Colombia
- Indonesia
- Malaysia
- Netherlands
- Panama
- Russian Federation
- Sweden
- United Arab Emirates
- United Kingdom of Great Britain and Northern Ireland
- United States of America

## C0.4

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

- USD

## C0.5

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

- Financial control

## C1. Governance

### C1.1

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

Yes

#### C1.1a

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

Position of individual(s)	Please explain
Director on board	<p>The Nominating, Governance and Corporate Responsibility Committee's principal functions, which are discussed in detail in its charter, include recommending candidates to the Supervisory Board for election or appointment as Supervisory Director and advising about, and recommending to the Supervisory Board, an appropriate set of corporate governance practices. Each member of the Nominating, Governance and Corporate Responsibility Committee is independent as defined by the corporate governance standards of the NYSE. The Committee operates under a written charter, which can be found at <a href="https://www.corelab.com/cr/governance">https://www.corelab.com/cr/governance</a>.</p>
Chief Executive Officer (CEO)	<p>The President/CEO of Core Laboratories NV is uniquely suited to provide climate change guidance to the BOD, having a Master's in Geology along with 30 years' experience in the oil and gas industry, and having held several Senior Management positions within Core Laboratories. The President/CEO has oversight for all of Core Laboratories operations, is a member of the BOD, member of the Corporate Social Responsibility committee and President of G&amp;A functions.</p> <p>The President/CEO attends Global Operations meetings semi-annually where future and ongoing projects are discussed. Meeting are informative with corporate initiatives disseminated to Business Segment Presidents, and the Segment Presidents giving detailed outlooks for their operations. Global operations meetings, and other subsequent meetings at lower levels, help Core Laboratories manage risk, identify opportunities or impacts, manage capital expenditures, review various strategy and measure progress against goals.</p>

## C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
<p>Scheduled – some meetings</p>	<p>Reviewing and guiding strategy                      Reviewing and guiding major plans of action                      Reviewing and guiding risk management policies                      Reviewing and guiding annual budgets                      Reviewing and guiding business plans                      Setting performance objectives                      Monitoring implementation and performance of objectives                      Overseeing major capital expenditures, acquisitions and divestitures                      Monitoring and overseeing progress against goals and targets for addressing climate-related issues</p>	<p>The board Compensation Committee has further oversight of ESG issues at the annual company sustainability presentation by the company SVP Corporate Development &amp; Investor Relations.</p> <p>The Compensation Committee has set performance goals that are consistent with the Company's business strategy and focus on creating long-term shareholder value. Performance is assessed based on the achievement of specific financial measures, safety metrics, operating objectives, and environmental, social and governance goals. The Compensation Committee also considers individual contributions to performance results.</p> <p>Definitive Proxy 2020 - Absolute performance accounts for 25% of the annual incentive award. The Compensation Committee evaluates the Company’s progress in improving on a collective basis, year-over-year, in the areas of safety and ESG. The Compensation Committee will base its determination primarily on relevant objective third-party reports and may award up to 25% of the maximum bonus possible depending on the Company’s overall improvement in these areas. If the Compensation Committee determines that overall the Company’s performance at the end of a year, on a year-over-year basis, has declined, it may award as little as zero (0) bonus for this metric.</p> <p>The maximum award opportunity is established as a percentage of salary for each NEO based upon a review of the competitive data for that officer's position, level of responsibility and ability to impact our financial success. The Compensation Committee designs these</p>

		<p>awards so that cash incentive compensation will approximate the market range when individual and corporate strategic objectives are achieved and will exceed the market median when performance plans are exceeded. Annual incentive awards are designed to put a significant portion of total compensation at risk. NEOs are eligible for an incentive cash award to the extent that the Company achieves certain relative and absolute performance goals.</p> <p>Board Audit Committee has initiated an internal audit to conduct a review of Core Laboratories' sustainability/ESG reporting process and the data that is used for reporting. The audit will take place in early 2021 by Core Laboratories Corporate Internal Audit team.</p>
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## C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Corporate responsibility committee	Both assessing and managing climate-related risks and opportunities	Quarterly
Safety, Health, Environment and Quality committee	Managing climate-related risks and opportunities	Quarterly
Other, please specify Global Director Safety & Sustainability	Both assessing and managing climate-related risks and opportunities	Quarterly
Other C-Suite Officer, please specify SVP Corporate Development & Investor Relations	Both assessing and managing climate-related risks and opportunities	Quarterly
Procurement manager	Assessing climate-related risks and opportunities	Annually
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	Quarterly



Chief Financial Officer (CFO)	Both assessing and managing climate-related risks and opportunities	Quarterly
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## C1.2a

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

Corporate Responsibility Committee is made up of C-Suite members that review and act on global company initiatives and projects. This organization collects all data and produces the semi-annual Corporate Social Responsibility report for public posting, reports activity to the BOD quarterly, and maintains company progress on all ESG reporting to investor indices. The group is also responsible for oversight and collection of data, method of GHG calculations and boundary setting, scientific base year goals, and reporting to BOD on progress.

The Safety Health & Environmental Committee consist of Senior HSE managers from all divisions with a global footprint of the Company. The group Chairman is the Corporate HSE Director, which is a member of the Corporate Responsibility Committee. Members of this group have varied expertise in ESG and act as a conduit to move HSE information up and down the chain of command and to the Corporate Responsibility Committee.

President/CEO, CFO, SVP Corporate Development and HSE Director are the key members of the Corporate Responsibility Committee and work as a team to identify and act on ESG issues within the company. This group meets often and submits plans to the BOD and CEO for consideration and approval. The Procurement Manager position, and the Communications and Sustainability Specialist, are new positions in the company that joined the Corporate Responsibility Committee in 2019. These positions take advantage of the company purchase power, to address Scope 3 emissions, which account for the bulk of our emissions, and to increase transparency by increasing the frequency, depth and quality of public disclosures. These new Company positions focus Core Labs efforts on sustainability projects and resources and meet periodically with the main committee to provide additional expertise.

## C1.3

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

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

### C1.3a

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

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Chief Executive Officer (CEO)	Monetary reward	Company performance against a climate-related sustainability index	<p>Annual Cash Incentives</p> <p>All of our NEOs participate in our annual cash incentive plan. Under this plan, each NEO is assigned a target and a maximum bonus expressed as a percentage of his base salary. The maximum award opportunity is established as a percentage of salary for each NEO based upon a review of the competitive data for that officer's position, level of responsibility and ability to impact our financial success. The Compensation Committee designs these awards so that cash incentive compensation will approximate the market range when individual and corporate strategic objectives are achieved and will exceed the market median when performance plans are exceeded. Annual incentive awards are designed to put a significant portion of total compensation at risk. NEOs are eligible for an incentive cash award to the extent that the Company achieves certain relative and absolute performance goals. The Compensation Committee has set performance goals that are consistent with the Company's business strategy and focus on creating long-term shareholder value. Performance is assessed based on the achievement of specific financial measures, safety metrics, operating objectives, and environmental, social and governance goals. The Compensation Committee also considers individual contributions to performance results. Absolute Performance Absolute performance accounts for 25% of the annual incentive award. The Compensation Committee evaluates the Company's progress in improving on a collective basis, year-over-year, in the areas of safety and ESG. The Compensation Committee will base its determination primarily on relevant objective third-party reports and may award up to 25% of the maximum bonus possible depending on the Company's overall improvement in these areas. If the Compensation Committee determines that overall, the Company's performance at the end of a year, on a year-over-year</p>

			basis, has declined, it may award as little as zero (0) bonus for this metric.
Chief Operating Officer (COO)	Monetary reward	Company performance against a climate-related sustainability index	<p><b>Annual Cash Incentives</b>                      All of our NEOs participate in our annual cash incentive plan. Under this plan, each NEO is assigned a target and a maximum bonus expressed as a percentage of his base salary. The maximum award opportunity is established as a percentage of salary for each NEO based upon a review of the competitive data for that officer's position, level of responsibility and ability to impact our financial success. The Compensation Committee designs these awards so that cash incentive compensation will approximate the market range when individual and corporate strategic objectives are achieved and will exceed the market median when performance plans are exceeded. Annual incentive awards are designed to put a significant portion of total compensation at risk. NEOs are eligible for an incentive cash award to the extent that the Company achieves certain relative and absolute performance goals. The Compensation Committee has set performance goals that are consistent with the Company's business strategy and focus on creating long-term shareholder value. Performance is assessed based on the achievement of specific financial measures, safety metrics, operating objectives, and environmental, social and governance goals. The Compensation Committee also considers individual contributions to performance results. Absolute Performance Absolute performance accounts for 25% of the annual incentive award. The Compensation Committee evaluates the Company's progress in improving on a collective basis, year-over-year, in the areas of safety and ESG. The Compensation Committee will base its determination primarily on relevant objective third-party reports and may award up to 25% of the maximum bonus possible depending on the Company's overall improvement in these areas. If the Compensation Committee determines that overall, the Company's performance at the end of a year, on a year-over-year basis, has declined, it may award as little as zero (0) bonus for this metric.</p>
President	Monetary reward	Company performance against a climate-related sustainability index	<p><b>Annual Cash Incentives</b>                      All of our NEOs participate in our annual cash incentive plan. Under this plan, each NEO is assigned a target and a maximum bonus expressed as a percentage of his base salary. The maximum award opportunity is established as a percentage of salary for each NEO based upon a</p>



			<p>review of the competitive data for that officer's position, level of responsibility and ability to impact our financial success. The Compensation Committee designs these awards so that cash incentive compensation will approximate the market range when individual and corporate strategic objectives are achieved and will exceed the market median when performance plans are exceeded. Annual incentive awards are designed to put a significant portion of total compensation at risk. NEOs are eligible for an incentive cash award to the extent that the Company achieves certain relative and absolute performance goals. The Compensation Committee has set performance goals that are consistent with the Company's business strategy and focus on creating long-term shareholder value. Performance is assessed based on the achievement of specific financial measures, safety metrics, operating objectives, and environmental, social and governance goals. The Compensation Committee also considers individual contributions to performance results. Absolute Performance Absolute performance accounts for 25% of the annual incentive award. The Compensation Committee evaluates the Company's progress in improving on a collective basis, year-over-year, in the areas of safety and ESG. The Compensation Committee will base its determination primarily on relevant objective third-party reports and may award up to 25% of the maximum bonus possible depending on the Company's overall improvement in these areas. If the Compensation Committee determines that overall, the Company's performance at the end of a year, on a year-over-year basis, has declined, it may award as little as zero (0) bonus for this metric.</p>
Chief Financial Officer (CFO)	Monetary reward		<p><b>Annual Cash Incentives</b>                  All of our NEOs participate in our annual cash incentive plan. Under this plan, each NEO is assigned a target and a maximum bonus expressed as a percentage of his base salary. The maximum award opportunity is established as a percentage of salary for each NEO based upon a review of the competitive data for that officer's position, level of responsibility and ability to impact our financial success. The Compensation Committee designs these awards so that cash incentive compensation will approximate the market range when individual and corporate strategic objectives are achieved and will exceed the market median when performance plans are exceeded. Annual incentive awards are designed to put a significant portion of total compensation at risk. NEOs are eligible for an incentive cash award to the extent that the Company achieves certain relative and</p>

		<p>absolute performance goals. The Compensation Committee has set performance goals that are consistent with the Company's business strategy and focus on creating long-term shareholder value. Performance is assessed based on the achievement of specific financial measures, safety metrics, operating objectives, and environmental, social and governance goals. The Compensation Committee also considers individual contributions to performance results. Absolute Performance Absolute performance accounts for 25% of the annual incentive award. The Compensation Committee evaluates the Company's progress in improving on a collective basis, year-over-year, in the areas of safety and ESG. The Compensation Committee will base its determination primarily on relevant objective third-party reports and may award up to 25% of the maximum bonus possible depending on the Company's overall improvement in these areas. If the Compensation Committee determines that overall, the Company's performance at the end of a year, on a year-over-year basis, has declined, it may award as little as zero (0) bonus for this metric.</p>
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## C2. Risks and opportunities

### C2.1

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

Yes

#### C2.1a

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

	From (years)	To (years)	Comment
Short-term	1	10	Short-term horizons are efficiencies we can work on now and over the next 10 years. Those include taking advantage of our purchase agreements and leases as they expire and developing our technology services to the oil & gas industry. With

			<p>Scope 3 being the bulk of our emissions finding purchase agreements with socially responsible vendors is a priority, and our new Procurement Manager position has focused on US based purchases and then internationally in the later portion of the 10 year horizon. Expiring leases is another opportunity in the short-term we continue to capitalize on moving our operations into newer properties that are more efficient. In early 2018, we were able to consolidate four of our older properties at our Jakarta operation into one new built for purpose energy efficient structure. Lastly, Core Laboratories strives to develop new proprietary technologies that assist the oil &amp; gas industry to improve efficiency in well production, success in obtaining incremental barrels, and use of carbon capture strategies.</p>
Medium-term	10	30	<p>Medium-term horizons involve those strategies that will assist our oil and gas clients make transitions to newer cost effective processes, energy efficient projects and transitional products. Those include improved recovery from existing wells, higher technology to monitoring operations with higher detail in reservoir description, and increased production of other energy sources such as biofuels, LNG or natural gas. Core Laboratories is positioned in the upstream, midstream and downstream sectors of oil &amp; gas and is uniquely situated to use our advanced technology center's, and knowledge, to assist our clients to improve environmental impact through our innovative technologies.</p>
Long-term	30	50	<p>Long-term horizons are developments Core Laboratories is exploring that move away from, or greatly reduced hydrocarbon energy dependence. An example is geothermal energy production expected to increase in the Asia Pacific region over the next several years and the possibility for expansion in the next 30 to 50 years. Geothermal energy production requires wells that have reservoirs of extremely hot fluids and gases, which must be brought to the surface for energy productions. Much of the technology to drill, perforate, fracture, monitor and stimulate wells are very similar to those already developed by Core Laboratories for the oil &amp; gas industry. Core Laboratories experience in reservoir description and production enhancement have the ability to assist future geothermal projects maximize returns.</p> <p>Another long-term opportunity is in hydrogen and the future hydrogen economy. We may see over time metering and associated calibrations, as well as quality checks on the basis of standards such as Hydrogen Analysis Resource Center: Hydrogen Fuel Quality Standards. However, safety concerns associated with fuel cells may even become a larger market. These concerns are generally hazardous interactions when fuel is integrated in such systems.</p> <p>Two areas posing the highest risk for electrical hazards within a hydrogen fuel cell are the main AC supply and the DC electrical output of the fuel cell stack. Due to high potential for hazardous interactions of components within a fuel cell, access should only be limited to personnel who are competent and educated in recognizing and dealing with such hazards.</p>

			<p>Special care should be practiced when dealing with Hydrogen fuel cells since Hydrogen has inherent hazardous properties. Special care must be practiced when choosing equipment used in conjunction with hydrogen.</p> <p>Other focus is on our laboratory quality testing infrastructure capabilities. The global network of laboratories continually improves on testing capabilities to support the renewable and low carbon energy industry. New analytical methods and apparatus will need to be developed and equipment updated over the 30-50-year horizon.</p>
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## C2.1b

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

The Company integrates Environmental, Social and Governance risks and opportunities into its business plans at all levels and incorporates measures to ensure the best interests of shareholders and stakeholders. Core's Corporate Development, Investor Relations and Corporate Governance teams enable the Company to be responsive while engaging with investors to discuss operational, financial, governance, executive compensation, environmental, safety, social and policy issues. Core Lab's Supervisory Board of Directors sets the highest standards to ensure policies and practices are well aligned with shareholder interests. The Board oversees and guides the Company to ensure that decisions and actions consider risk management, and that appropriate systems are employed. Three committees are composed solely of Independent Directors: Audit, Compensation, Nominating Governance and Corporate Responsibility Committees, each fulfilling important responsibilities by assisting Core Lab in risk management and building long-term shareholder value.

## C2.2

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

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#### Value chain stage(s) covered

- Direct operations
- Upstream
- Downstream

#### Risk management process

Integrated into multi-disciplinary company-wide risk management process

**Frequency of assessment**

More than once a year

**Time horizon(s) covered**

Short-term

Medium-term

Long-term

**Description of process**

In its role in the risk oversight of the Company, the Supervisory Board oversees our stakeholders' interest in the long-term health and overall success of the Company and its financial strength, as well as the interests of the other stakeholders of the Company. The Supervisory Board is actively involved in overseeing risk management for the Company, and each of our Supervisory Board committees considers the risks within its areas of responsibilities. The Supervisory Board and each of our Supervisory Board committees regularly discuss with management our major risk exposures, their potential impact on us and the steps we take to manage them.

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**Value chain stage(s) covered**

Direct operations

Upstream

Downstream

**Risk management process**

Integrated into multi-disciplinary company-wide risk management process

**Frequency of assessment**

More than once a year

**Time horizon(s) covered**

Short-term

Medium-term

Long-term

### **Description of process**

The Corporate Social Responsibility Team meets at least every six months to review all CSR issues and issue the annual CSR report in Jan-Feb and an update in June – August to add the finalized emissions from the previous year for public posting to [www.corelab.com](http://www.corelab.com). The Corporate Social Responsibility consist of the President/CEO, Chief Financial Officer, SVP Corporate Development & Investor Relations, and Global Director of Safety & Sustainability. This group's risk responsibility is to survey the company senior management and stakeholder, identifying climate related risk and opportunities, manage collection of emission data and other CSR metrics, direct public reporting, set boundaries, determine company strategy and policy and identify key metrics to the Board of Directors.

Risk and opportunities identified by the Corporate Social Responsibility Team are communicated to the Board of Directors by the SVP Corporate Development & Investor relations at the quarterly BOD meetings. They are also communicated at the quarterly Global Operations meeting to all the Business Unit Presidents, and corporate department heads, for further dissemination and implementation throughout the Company.

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### **Value chain stage(s) covered**

Direct operations

### **Risk management process**

Integrated into multi-disciplinary company-wide risk management process

### **Frequency of assessment**

More than once a year

### **Time horizon(s) covered**

Short-term

Medium-term

### **Description of process**



Opportunities and risks can be identified at all levels throughout the company by many mechanisms. Identified risks or opportunities then move through appropriate channels which may include our legal department, upper management and CSR team to provide guidance and directives on how we would proceed to handle a particular risk or take advantage of a particular opportunity. In addition, our insurance carrier FM Global audits our high-risk locations frequently and recommends climate related risk and opportunities to our operations management. FM Global provides a risk mark score and recommendations, which are evaluated by local and senior management, up to the Chief Operation Officer and CSR Team, for implementation. Weather, natural hazard and supply chain risk that are monitored by the CSR team and FM Global include: Ice, rainfall, snowfall, temperature, wind, wind speed zone, earthquake zone, flood zone, global flood map, hail map, and resilience index. Core Laboratories primary opportunities are associated with our ability to reduce the consumption of electricity, wastewater reduction, waste stream limitation, and petroleum sample disposal plans. We participate in recycling programs in countries where they are available. At the company level, offices across the globe participate in various recycling programs and paper reduction programs. Electricity reduction plans, goals and best practices, first introduced in our largest facilities, are now shared and incorporated into other offices across the globe. With respect to asset level, our major manufacturing facilities in the United States and Canada set annual goals to continue the reduction of scrap materials (less waste) and continually reduce wastewater. Our major laboratory facilities limit the number of petroleum samples retained, which reduces the size of our facilities, disposal cost, and indirectly reduces possible emissions from our disposal vendors. For example, in the United States, we stipulate the use of vendors that blend our sample waste back into petroleum products streams to recycled, which is additional cost, but helps reduce emissions. These types of programs are companywide initiatives and employed when available in the geographical area that we are operating.

## C2.2a

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	We are subject to stringent governmental laws and regulations, both in the United States and other countries, pertaining to protection of the environment and occupational safety and health. Compliance with environmental legal requirements in the United States at the federal, state or local levels may require acquiring permits to conduct regulated activities, incurring capital expenditures to limit or prevent emissions, discharges and any unauthorized releases, and complying with stringent practices to handle, recycle and dispose of certain wastes. Additionally, our operations in the United States are subject to stringent occupational safety and health laws and regulations, which are intended to protect worker health and safety.

		<p>Foreign countries in which we conduct operations may also have analogous controls that regulate our environmental and worker safety-related activities, which controls may impose additional, or more stringent requirements. Consistent with our quality assurance and control principles, we have established proactive environmental and worker safety policies in the United States and foreign countries for the management, handling, recycling or disposal of chemicals and gases and other materials and wastes resulting from our operations. Failure to comply with these laws and regulations may result in the assessment of administrative, civil and criminal penalties, the imposition of remedial or corrective obligations, the occurrence of delays or cancellations in the permitting or performance of projects and the issuance of injunctive relief in affected areas. Historically, our environmental and worker safety compliance costs have not had a material adverse effect on our results of operations; however, there can be no assurance that such costs will not be material in the future or that such future compliance will not have a material adverse effect on our business or results of operations.</p>
Emerging regulation	Relevant, always included	<p>New, modified or stricter enforcement of environmental laws and regulations could be adopted or implemented that significantly increase our compliance costs, pollution mitigation costs, or the cost of any remediation of environmental contamination that may become necessary, and these costs could be material. Our clients are also subject to most, if not all, of the same laws and regulations relating to environmental protection and occupational safety and health in the United States and in foreign countries where we operate. Consequently, to the extent these environmental compliance costs, pollution mitigation costs or remedial costs are incurred by our clients, those clients could elect to delay, restrict or cancel drilling, exploration or production programs, which could reduce demand for our products and services and, as a result, have a material adverse effect on our business, financial condition, results of operations, or cash flows.</p> <p>Our and our clients' compliance with such existing, or any new or amended legal requirements that are placed into effect and applicable in areas where we or our clients conduct operations, could result in our or our clients' incurring significant additional expense and operating restrictions. Our costs may not be fully recoverable from our clients and, thus, could reduce net income. To the extent any such existing or future legal requirements result in increased costs or restrictions or cancellation in the operation of our clients, to whom we provide our services, such developments could reduce demand for our products and services and have an indirect material adverse effect on our business.</p>
Technology	Relevant, sometimes included	<p>If we are not able to develop or acquire new products or our products become technologically obsolete, our results of operations may be adversely affected. The market for our services and products is characterized by changing technology and product introduction. As a result, our success is dependent upon our ability to develop or acquire new services and products on a cost-effective basis and to introduce them into the marketplace in a timely manner. While we intend to</p>



		<p>continue committing substantial financial resources and effort to the development of new services and products, we may not be able to successfully differentiate our services and products from those of our competitors. Our clients may not consider our proposed services and products to be of value to them; or if the proposed services and products are of a competitive nature, our clients may not view them as superior to our competitors' services and products. In addition, we may not be able to adapt to evolving markets and technologies, develop new products, or achieve and maintain technological advantages.</p> <p>If we are unable to continue developing competitive products in a timely manner in response to changes in technology, our businesses and operating results may be materially and adversely affected. In addition, continuing development of new products inherently carries the risk of inventory obsolescence with respect to our older products.</p>
Legal	Relevant, always included	<p>Hydraulic fracturing is a process used by oil and gas exploration and production operators in the completion of certain oil and gas wells whereby water, sand or other proppants and chemical additives are injected under pressure into subsurface formations to stimulate gas and, to a lesser extent, oil production. Some countries outside the United States, such as Bulgaria, the Czech Republic and France, currently have imposed moratoria on hydraulic fracturing while other countries, such as the United Kingdom, allow fracturing activities but those activities are not as widely pursued as they are in the United States. In the United States, the fracturing process is typically regulated by state oil and gas commissions, but several federal agencies have asserted regulatory authority over certain aspects of the process.</p> <p>Additionally, a growing number of states have adopted, and other states are considering adopting, legal requirements that could impose more stringent disclosure, permitting and/or well construction requirements on hydraulic fracturing operations, and local governments may also seek to adopt ordinances within their jurisdictions regulating the time, place and manner of hydraulic fracturing activities.</p> <p>If new or more stringent federal, state or local legal restrictions related to the hydraulic fracturing process are adopted in areas where our exploration and production clients' operate, those clients could incur potentially significant added costs to comply with such requirements and experience delays or curtailment in the pursuit of exploration, development or production activities, which could reduce demand for our products and services</p>
Market	Relevant, always included	<p>The oil and gas industry is highly cyclical and demand for the majority of our oilfield services and products is substantially dependent on the level of expenditures by the oil and gas industry for the exploration, development and production of crude oil and natural gas reserves, which are sensitive to oil and natural gas prices and generally dependent on the industry's view of future oil and gas prices. There are numerous factors affecting the supply of and demand for our services and products, which are summarized as: general and economic business conditions, including market prices of oil</p>

		<p>and gas and expectations about future prices; the adoption of legal requirements or taxation; changes in existing laws, regulations or other governmental actions; cost of producing and the ability to deliver oil and natural gas; the level of drilling and production activity; financial condition of our client base and their ability to fund capital expenditures; coordination by the OPEC; weather conditions and the physical effects of climatic change; civil unrest or political uncertainty in oil producing or consuming countries; level of consumption of oil, gas and petrochemicals by consumers; availability of services and materials for our clients to grow their capital expenditures and to deliver product to market; and availability of materials and equipment from key suppliers.</p> <p>The oil and gas industry has historically experienced periodic downturns, which have been characterized by diminished demand for our oilfield services and products and downward pressure on the prices we charge. A significant downturn in the oil and gas industry could result in a reduction in demand for oilfield services and could adversely affect our operating results.</p>
Reputation	Relevant, sometimes included	<p>Sustainability Management</p> <p>Core Laboratories sustainability management system focuses the Company's efforts to reduce our environmental footprint, increase performance and improve the sustainability of our Company. It is a conviction that these principles drive Company success by reducing waste, consumption of non-renewable resources, and even the cost of operations. These principles make our Company stronger, socially responsible, efficient and profitable well into the future.</p>
Acute physical	Relevant, sometimes included	<p>Acute physical weather pattern can have a dramatic effect on our physical locations, work in coastal regions and coastal cities, and on marine shipping activities of our clients. It is not uncommon to see reduced revenue opportunities during cyclone season, or higher rain fall periods resulting in flooding. Core Laboratories focuses on acute physical weather-related events as needed.</p>
Chronic physical	Relevant, always included	<p>the physical effects of climatic change, including adverse weather, such as increased frequency or severity of storms, such as hurricanes, droughts and floods, or geologic/geophysical conditions;</p>

## C2.3

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

Yes

## C2.3a

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

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**Identifier**

Risk 1

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

Direct operations

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

Acute physical

Increased severity and frequency of extreme weather events such as cyclones and floods

**Primary potential financial impact**

Increased insurance claims liability

**Company-specific description**

Core Laboratories operates hundreds of laboratory locations around the globe in support of the marine movement of hydrocarbon and agricultural products. These locations are susceptible to flooding and damage from major cyclones and floods. In particular, Core Laboratories has experienced the loss of major laboratory structures, loss of supply chain availability, closure of locations due to electricity outages and displacement of employees from major hurricanes in the United States Gulf Coast Region and Caribbean. These disruptions have caused decreased or lost production capacity to perform laboratory test from days to months. Any increase in the frequency of significant coastal

weather events would have a major impact on our ability to conduct business in these coastal regions. Core laboratories has similar locations in Europe, Africa, South America, Central America, Middle East, Russia, Far East and Australia which greatly increases our exposure to climate related changes especially in coastal regions. Core Laboratories must also obtain insurance for property, business interruption and liability, which could significantly increase from increased weather event activity or claims activity.

**Time horizon**

Short-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Medium-high

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

Yes, an estimated range

**Potential financial impact figure (currency)**

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

1,000,000

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

1,250,000

**Explanation of financial impact figure**

Financial impact based on recent losses and average deductible for property loss and business interruption. In situations like Puerto Rico or Gulf Coast hurricane Harvey, financial impact is difficult to evaluate over the long term. Our business is critically tied to local consumption, ability of our clients to recover operations, our ability to recover operations, ability to maintain supply chains, effectiveness of our emergency response plan, etc. The financial impact of Puerto Rico will no doubt continue to play out over many years of lower available revenue. Magnitude of impact is set at medium to high due to localized impact from business location geographic considerations. Core Lab has a much

higher exposure to cyclone and flooding events in geographic areas such as US Gulf Coast or Asia Pacific than in US Mid-Continent, Russia or Europe.

### **Cost of response to risk**

100,000

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

Disaster recovery plan for impending weather events includes; backing up IT infrastructure, move critical equipment to secure location, diversion of work to other regional laboratories, send employees from other locations to continue work, secure material that could contribute to environmental hazard, etc. Each location must have its own individual Disaster Recovery plan as outlined below.

Policy: All Locations are required to have a Disaster Recovery Plan in place to recover operations within five days of the disaster.

1. An effective disaster recovery plan should consider occasions ranging from a situation where the information systems fail to situations where the entire facility is destroyed and nothing is recoverable.
2. An effective disaster recovery plan should take into consideration the following items, among other things:
  - minimize the effects of the loss of original data (reference Policy # 1102 regarding records retention program);
  - ability to contact other employees in case of a disaster;
  - how long will the operation be without the ability to invoice customers for services rendered or schedule new jobs;
  - how long will the operation be without the ability to meet payroll;
  - how long will the operation be without the ability to pay vendors; and
  - how will banking relationships be affected.
3. Corporate IT in Houston should be provided a copy of the local information systems Disaster Recovery Plan every year.

### **Comment**

100,000 is based on a short duration closure of 5 to 10 days and based on travel expense, supplemental lodging and overtime pay for temporary assigned workers, fuel cost for electricity generation, possible lease for storage emergency operating space, lease of emergency

equipment. This cost could be substantially higher for longer duration events or for closures of major locations such as corporate headquarters which we experience during Ike in Houston Texas, USA. Events of this type include backup of all company IT services to emergency servers by an IT team sent out days in advance, large cost of onsite generator usage and disaster pay to over 350 employees inclement weather pay.

## C2.4

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

Yes

### C2.4a

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

---

**Identifier**

Opp1

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

Direct operations

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development of new products or services through R&D and innovation

**Primary potential financial impact**

Increased revenues through access to new and emerging markets

### **Company-specific description**

Geothermal energy production service that is expected to increase in the Asia Pacific region over the next several years and the possibility for expansion globally in the next 30 to 50 years. Geothermal energy production requires wells that have reservoirs of extremely hot fluids and gases, which must be brought to the surface for energy productions. Much of the technology to drill, perforate, fracture, monitor and stimulate wells are very similar to those already developed by Core Laboratories for the oil & gas industry. Core Laboratories experience in reservoir description and production enhancement have the ability to assist future geothermal projects maximize returns. Other focus is on our laboratory quality testing infrastructure capabilities. The global network of laboratories continually improves on testing capabilities to support the energy industry. New analytical methods and apparatus will need to be developed and equipment updated to provide these services for years to come. Core Laboratories has developed a series of Rock Mechanics, Digital Geological Characterizations and Formation Damage services to improve the understanding of any anthropogenic changes made in the rock crust for the exploitation of geo-energy. In particular, Thermo-Hydro-Mechanical couplings effects are experimentally investigated to improve Enhanced Geothermal Systems (EGS) fracture design and energy recovery simulations.

Natural and artificial fractures from hydraulic and/or chemical stimulation of high temperature (>100°C) on low permeability crystalline rock are the main conduits to transfer heat to land surface by circulating water through the fracture network via injection and production boreholes. Determination of fracture conductivity and fracture aperture versus closure stress are important for fracturing design and establishing safe operating conditions.

### **Time horizon**

Medium-term

### **Likelihood**

Very likely

### **Magnitude of impact**

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 figure**

Core Laboratories performed limited analysis on geothermal projects in 2019. While Core Lab can obtain and perform geothermal projects current focus is on State/Country projects through governmental agencies and sponsored university studies. With geothermal only accounting for 0.6 percent of renewable energy technologies, with 13,329 MW installed capacity in 2018, future short-term financial impacts are difficult to estimate. Geothermal will most likely continue to lag behind renewables such as wind and solar due to their easily scalable nature, rapidly advancing technologies, and geothermal being limited to tectonic boundaries and volcanic regions in the short-term horizon. Core considers this a long-term horizon with geothermal having a larger impact from its advantages of ability to provide large scale turban electricity facilities; minimal additional pollution/manufacture technology such as battery and plastic; limited space for deployment.

**Cost to realize opportunity**

500,000

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

Core Lab will continue to seek out and perform work with States/Countries exploring geothermal fields and project feasibility. Early phases will allow for the use of our existing knowledge from over 80 years of geologic work in the oil and gas industry and continue to build our knowledge of geothermal field properties and characteristics. This opportunity is dependent on the future feasibility and commitment to large scale private investment projects. Core Lab sees this as a medium time horizon opportunity with larger returns possible in the long term.

**Comment**

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**Identifier**



Opp2

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

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Ability to diversify business activities

**Primary potential financial impact**

**Company-specific description**

Emissions reporting for some of our clients has generated the need for services from us to assist them in meeting these reporting requirements. additionally, the global efforts and focus to reduce the emission of GHGs has created opportunities for us to assist our clients in becoming more efficient in their processes which often use heavy equipment, thus by indirectly reducing the emissions with shorter work time needed to generate the same results.

**Time horizon**

Short-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Low

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

No, we do not have this figure

**Potential financial impact figure (currency)**

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

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

**Explanation of financial impact figure**

We do not track or disclose the amounts of revenues or operating profits associated with these services or the efficiency gains realized by our clients through reduced work times, etc.

**Cost to realize opportunity**

100,000

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

Service lines associated with these clients are working in collaboration with clients to service their reporting needs. Our company's mission is to assist our clients in gaining incremental production through the use of our products, services, and technologies, so incrementally gaining/producing more with low incremental cost. An example is Carbon Capture to Improve Hydrocarbon Recovery - Core Laboratories Provides Technologies to Mitigate the Risks of Carbon Emissions. We offer high-technology services that provide scientific data used when designing projects involving the injection of CO<sub>2</sub> into oil fields. In our laboratories, we study how CO<sub>2</sub> interacts with other fluids in the reservoir as well as how the CO<sub>2</sub> mobilizes residual oil within the reservoir. This provides at least two benefits which help the environment: First, CO<sub>2</sub> can be captured from industrial complexes and injected into oil fields, thereby reducing the amount of CO<sub>2</sub> emitted into the atmosphere. Second, the CO<sub>2</sub>, once injected into the reservoir, can improve the recovery rate of hydrocarbons from the reservoir – making the reservoir as efficient as possible by minimizing the number of hydrocarbons trapped within that reservoir. Thus, the positive impact to the environment is not only the reduction of CO<sub>2</sub> in the atmosphere, but also the more energy-efficient and more environmentally friendly recovery from an existing reservoir.

**Comment**

We estimate minimal to zero incremental costs associated with these activities as it is a normal part of our business and client service.

**Identifier**

Opp3

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

Direct operations

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development of climate adaptation, resilience and insurance risk solutions

**Primary potential financial impact**

**Company-specific description**

Core Laboratories Provides Technologies to Mitigate the Risks of Carbon Emissions. Core Lab offers high-technology services that provide scientific data used when designing projects involving the injection of CO<sub>2</sub> into oil fields. In our laboratories, we study how CO<sub>2</sub> interacts with other fluids in the reservoir as well as how the CO<sub>2</sub> mobilizes residual oil within the reservoir. This provides two benefits which help our environmental eco-system: First, CO<sub>2</sub> can be captured from industrial complexes and injected into oil fields, effectively sequestering the CO<sub>2</sub> underground and reducing the amount of CO<sub>2</sub> emitted into the atmosphere. Second, the CO<sub>2</sub>, once injected into the reservoir can improve the recovery rate of hydrocarbons from the reservoir making the reservoir as efficient as possible by minimizing the number of hydrocarbons trapped within that reservoir. The positive impact to the environment is not only the reduction of CO<sub>2</sub> in the atmosphere, but also greater recovery from an existing reservoir.

**Time horizon**

Medium-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Medium-low

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

No, we do not have this figure

**Potential financial impact figure (currency)**

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

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

**Explanation of financial impact figure**

We do not track or disclose the amounts of revenues or operating profits associated with these services or the efficiency gains realized by our clients through reduced work times, etc.

**Cost to realize opportunity**

10,000

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

Service lines associated with these clients are working in collaboration with clients to service their reporting needs. Our company's mission is to assist our clients in gaining incremental production through the use of our products, services and technologies, so incrementally gaining/producing more with low incremental cost.

**Comment**

We estimate minimal to zero incremental costs associated with these activities as it is a normal part of our business and client service.

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**Identifier**

Opp4

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

Direct operations

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development of climate adaptation, resilience and insurance risk solutions

**Primary potential financial impact**

**Company-specific description**

We introduce Barista to our Geneva based clients at June 20th, in Geneva and to the Dutch based clients in Rotterdam at June 27th.

Barista is the brand name of a new marine fuels blending model being developed by Core Laboratories LP. It allows clients to produce according to new IMO2020 regulations. These regulations put strong restrictions on the maximum Sulphur contents of marine fuel oils. The downside of this is, that producing stable enough fuels with sufficient compatibility will be a real challenge for the blending industry. Old blending targets on density and viscosity will be replaced by stability and compatibility parameters.

Barista is a model based on fuels and cutter stocks submitted by clients. It is tailor- made and customized for a stock of components that a client is buying and blending. It is a dynamic model. New residual fuels and cutter stocks can always be added. The model is based on measurements. Every component is analysed on a series of parameters and the test results feed the model. Since clients can use any kind of cutter stocks, we only deliver the model with cutter stocks that we have actually received and tested ourselves. There is no generic model available. It could well be possible that when our library grows with 'certified' components, we will be able to develop more generic models in the future, but for now we want to 'see' every component ourselves in the laboratory.

There are significant costs associated for the client, based on the number of components submitted. We will give each client a customized price offer, based on testing and modelling costs and where applicable sample collection, transportation, handling and destruction.

**Time horizon**

Short-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Medium-low

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

No, we do not have this figure

**Potential financial impact figure (currency)**

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

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

**Explanation of financial impact figure**

The exact financial impact of these regulations that went into effect January 1, 2020 is still unknown. The IMO 2020 is an initiative whose goal is an 85% reduction in the emissions of Sulphur from ocean going vessels. This includes a requirement for fuel to contain no more than .5% Sulphur content a reduction from the current norm of 3.5%. This new technology is expected to increase market share in blending technologies while replacing some of our existing services. An exact financial impact figure is hard to determine in the initial year of a new regulation adoption.

**Cost to realize opportunity**

50,000

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

New technology will be marketed to existing clients in the bunkering fuel refining and supply business with focus on obtaining new market share. Additionally, the service has been exhibited in Geneva and the Netherlands and will be introduced to several other markets. Barista symbols

what we want to offer our clients: a science-based, complicated and powerful model that delivers comfort and ease of use to fuel blenders for their everyday trade challenges.

### Comment

## C3. Business Strategy

### C3.1

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

Yes

### C3.1a

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

No, but we anticipate using qualitative and/or quantitative analysis in the next two years

### C3.1c

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

We currently do not use a formalized system, but rather historical experience, audit findings and input from our insurance carrier FM Global. FM Global has an advanced MyRiskMark Score system that scores our locations and company as a whole. This system includes risk visualization, profiles, trends, recommendations, exposures, improvement plans, resilience index, site plans and industry comparison indexes.

Opportunities and risks are identified by all levels of employees throughout the company. As risks or opportunities are identified and brought to management or our legal department, Upper management provides guidance and directives on how we would proceed to handle a particular risk or take advantage of a particular opportunity. Core Laboratories primary opportunities are associated with our ability to reduce the consumption of electricity, wastewater reduction, waste stream limitation, and petroleum sample disposal plans. We participate in recycling programs in countries where they are available. At the company level, offices across the globe participate in various recycling programs and paper reduction programs. Electricity reduction plans and goals were first introduced in our largest facilities and best practices have been shared and incorporated into



other offices across the globe. With respect to asset level, our only major manufacturing facilities set annual goals to continue the reduction of scrap materials (less waste) and continually deduce wastewater. Our major laboratory facilities limit the number of petroleum samples retained, which reduces the size of our facilities, disposal cost, and indirectly reduces possible emissions from our disposal vendors. For example, in the United States, we stipulate the use of Nexeo Solutions for sample disposal, which enables our waste to be blended into other petroleum products, which is additional cost for us, but helps reduce emissions. These types of programs are companywide initiatives but are only employed when available in the geographical area that we are operating.

Guidance is developed by the Company G&A Departments; the law department, finance, safety, ethics, information technologies, human resources, business development, etc. Risk opportunities and directives are then presented, discussed, and implemented in a series of meeting held by the CEO. The Global Operations meeting, made up of the business unit presidents and key senior management, are held twice per year to form a unified company operation. The business units then conduct a series of meetings, with the CEO's involvement, to address opportunities and directives down to the local management level. Using this top down dissemination with feedback up the chain allows the company to implement consistent direction and improvement. Additionally, Core Lab provides periodic updates to our Board of Supervisory Directors regarding related goals and expected outcomes. Feedback and expectations from these discussions are integrated into the identification process for risks and opportunities.

Internally we are focused on reducing carbon emission sources caused in our operations and also reducing the use of electricity in all operations. Core Laboratories especially seeks to reduce or eliminate emission sources that do not contribute to the production of our services or products. We see these emissions as wasted energy, resources and additional unnecessary cost which take away from the overall goals of the company. In 2017, 2018 and 2019 we were also capable of sourcing more of our electricity from renewables at our corporate headquarter, the largest facility worldwide. We have seen a large increase in renewable energy availability since 2016 when only 1% of our electricity at our 6 Advanced Technology Centers was sourced from renewables.

### C3.1d

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

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Core Laboratories assist its clients to optimize well recovery on each well reducing the overall carbon contribution for extraction of each barrel. Throughout the Company's history, Core's forward-thinking scientists have focused their talents on developing service and products that enable Core's global client



		<p>base to take full advantage of reservoir optimization opportunities. Core's latest client-driven technology advancements are being delivered through two business segments: Reservoir Description and Production Enhancement. Each of these segments applies patented and proprietary technologies to contribute to clients' successes from the earliest stages of well planning through enhanced oil recovery operations.</p> <p>Today, the world's conventional oilfield produces about 40% of their reserves, leaving 60% of the oil in place. The Company's recent innovations enable clients to recover those incremental - and most economically produced - barrels from the reservoir, in some cases elevating production to 45% or more of the hydrocarbon reserves.</p> <p>Core Laboratories will continue to focus on advanced technologies that improve efficiencies, decrease carbon emission activities such as carbon sequestering by gas injection and other technological advancements that contribute to lower upstream carbon impact for our clients.</p>
<p>Supply chain and/or value chain</p>	<p>Evaluation in progress</p>	<p>A procurement team was put in place at the end of 2018 to evaluate purchasing and create a strategic sourcing plan. This department has grown in size to represent all business units in the United States and assist with international purchasing on major projects. At the current time supply chain risk and opportunities are integrated for the bulk of our purchasing, but still being evaluated for localized purchasing in the over 50 countries we work in.</p>
<p>Investment in R&amp;D</p>	<p>Yes</p>	<p>Investment and R&amp;D in 2019 include technology to improve reservoir efficiency. Core's game-changing Reservoir Optimized Completions Lab ("ROC Lab™") was commissioned in 2019 and determines the best energetic solutions for a specific rock type. Core Lab continues to be the technological leader in the design of more efficient and effective energetics. ROC Lab™ is a collaborative development between the ballistics experts in Production Enhancement and the scientists in Core's Reservoir Description rock, fluid, and laboratory instrumentation segments. This collaboration presents clients with the opportunity to obtain measured data on the interrelationships of rocks, pore fluids, and various energetic options, all at reservoir stress conditions. The ROC Lab™ features an industry-leading, ultra-high pressure/high temperature perforation test vessel. The test vessel is paired with a proprietary flow system that uses highly specialized, internally developed and manufactured pumps and flow controllers. Combined, these</p>

		<p>technologies create a proprietary flow loop capable of dynamically displacing oil, brine, and gas through rock samples that have been perforated with preselected energetics. On-site, high-resolution, 3D-Industrial CT capabilities allow clients to view inside the rock samples to see depth of penetration, determine tunnel volume and geometry, and assess possible damage to the formation - all with industry-leading imaging resolution. Combined with Core's proprietary geological analysis techniques, clients can now select and test energetics that will optimize performance in specific stratigraphic targets. This focused approach allows operators to optimize completion strategies for each producing formation in a basin, tuning energetic performance to the specific geologic properties of reservoir zones. Core uses its extensive worldwide petrophysical and reservoir fluids database, including its proprietary Rock Catalog and ROC Lab™, to customize FFR™ energetics to optimize initial production rates and maximize estimated ultimate recoveries and our client's returns on investment. Core is uniquely capable of bringing together its: ballistics expertise, vast geological and flow studies knowledge, laboratory-instrumentation manufacturing and digital imaging technologies to provide this industry-leading service.</p>
Operations	Yes	<p>Guidance is developed by the Company G&amp;A Departments; the law department, finance, safety, ethics, information technologies, human resources, business development, etc. Risk opportunities and directives are then presented, discussed, and implemented in a series of meeting held by the COO. The Global Operations meeting, made up of the business unit presidents and key senior management, are held twice per year to form a unified company operation. The business units then conduct a series of meetings, with the COO's involvement, to address opportunities and directives down to the local management level. Using this top down dissemination with feedback up the chain allows the company to implement consistent direction and improvement. Additionally, Core Lab provides periodic updates to our Board of Supervisory Directors regarding related goals and expected outcomes. Feedback and expectations from these discussions are integrated into the identification process for risks and opportunities. From a regulatory perspective, we assist our clients in meeting many regulations associated with emissions reporting and their programs associated with the various climate change initiatives around the globe. Internally we are focused on reducing carbon emission sources caused in our operations and also reducing the use of electricity in all operations. Core Laboratories especially seeks to reduce or eliminate emission sources that do not contribute to the production of our services or products. We see these emissions as wasted energy, resources and additional unnecessary cost which</p>

		take away from the overall goals or the company. An example is our recent discovery that aging cooling systems had become a major source of carbon emissions contribution.
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### C3.1e

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

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues	<p>In the United States Gulf Coast Region there have been multiple severe weather events from 2003 through 2019 that have caused significant impact to revenue. Risk from major storms and flooding events have to be factored into seasonal revenue projections. In 2017 Core Laboratories locations were impacted by Hurricane Maria in Puerto Rico and Hurricane Harvey in the Gulf Coast Region. 2018 and 2019 were less active storm seasons but we have still seen storms affecting oil production and refining in 2019. These storms not only hamper our ability to operate but those of our client sites where work is performed. Often lost revenue is not attributed to our ability to operate, but to the complete or partial closure of refineries, oil fields and offshore platforms.</p> <p>Currently capital expenditures for preventative maintenance or preparedness have been made with no new expenditures or allocations in 2019. Disaster recovery plans, with the equipment needed such as generator back-up or IT back-up have been completed. Disaster recovery plans were strengthened due to the increase in Significant Named Storms from 2003 to 2018.</p>

### C3.1f

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

Risk from major storms and flooding events have to be factored into operating cost. In 2017 Core Laboratories locations were impacted by Hurricanes Harvey and Maria impacting operating cost minimally in the Gulf Coast and substantially in Puerto Rico. 2018 and 2019 have seen slower storm seasons, but an increase in heat waves across much of the world. Excessive heat in regions, not accustomed to these extremes, increases operational

cost through the lack of facility infrastructure to efficiently cool and for a reduced safe work hours for employees. We must be constantly aware of the dangers or heat related injury and provide sufficient rest for our employees. There is a constant pressure to increase headcount or man hours to complete the same amount of work safely in elevated heat conditions.

Impact to our assets is almost exclusively building damage from significant weather events resulting in high wind or flooding damage. Since 2003 most significant climate related losses are from flooding associated with significant rain events, tropical storms, Hurricanes or Cyclones. We are constantly working with our global property carrier FM Global to assess flood and high wind risk at our location and investing in solutions to harden our infrastructure in high hazard areas.

## C4. Targets and performance

### C4.1

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

Absolute target

### C4.1a

**(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.**

---

**Target reference number**

Abs 1

**Year target was set**

2019

**Target coverage**

Company-wide

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

Scope 1

**Base year**

2018

**Covered emissions in base year (metric tons CO2e)**

4,541

**Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)**

100

**Target year**

2025

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

19

**Covered emissions in target year (metric tons CO2e) [auto-calculated]**

3,678.21

**Covered emissions in reporting year (metric tons CO2e)**

4,795

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

-29.4393769052

**Target status in reporting year**

Underway

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

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

**Please explain (including target coverage)**

Our original 2015 science based target was expected to increase from 5642 tCO<sub>2</sub>e to 7598 tCO<sub>2</sub>e in 2020. Since that time, we have expanded our collection of data to dive deeper into our data to eliminate some modelling. We were also able to make some instant improvements from maintenance and replacement of equipment such as chillers and those using refrigerants. However, the main driver for emissions reducing instead of increasing has been that the oil markets have been depressed longer than expected in 2015, and we expect the 2020 Global COVID-19 pandemic to further reduce emissions ahead of normal reductions in 2020. Revenues have been down from an all-time high of over 1 billion in 2014 to revenues in the 600K to 700K range from 2015 to 2019.

Starting in 2019 we are reporting targets with base year of 2018 for 5 and 7 years ending in 2023 and 2025 for 22 Mid-level ATC's instead of 6 ATC and reporting emission data obtained since 2017 for these locations. This information has been updated in this year CDP disclosures. To achieve the recommended reduction levels, Core Labs would need to set a target requiring a 45% reduction by 2030 from 2010 levels to stay under 1.5°C and reach net zero by 2050, using the IPCC special report published in October 2018. In comparison to 2018 emissions, Core Laboratories latest baseline year assessment, this equates to 12.5% reduction by 2023 for a 'well below 2 degree' scenario (WB2C) and 21% for a 1.5 degree scenario (1.5C). Emissions for the 21 sites would need to decrease from 50,748 tCO<sub>2</sub>e to 44,405 tCO<sub>2</sub>e by 2023 under the WB2C scenarios and or to 40,091 tCO<sub>2</sub>e under the 1.5C scenario. By 2025, reductions of 19% and 27% are required under the WB2C and 1.5C scenarios respectively from the baseline year of 2018. The information on targets and increased locations is available on our public web site in the Trucost report files. <https://www.corelab.com/cr/environmental-focus>

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**Target reference number**

Abs 2

**Year target was set**

2015

**Target coverage**

Company-wide

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

Scope 2 (location-based)

**Base year**

2018

**Covered emissions in base year (metric tons CO2e)**

12,490

**Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)**

100

**Target year**

2025

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

19

**Covered emissions in target year (metric tons CO2e) [auto-calculated]**

10,116.9

**Covered emissions in reporting year (metric tons CO2e)**

10,381

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

88.8710968775

**Target status in reporting year**

Underway

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

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

**Please explain (including target coverage)**

Our original 2015 science based target was expected to increase from 5642 tCO2e to 7598 tCO2e in 2020. Since that time, we have expanded our collection of data to dive deeper into our data to eliminate some modelling. We were also able to make some instant improvements from

maintenance and replacement of equipment such as chillers and those using refrigerants. However, the main driver for emissions reducing instead of increasing has been that the oil markets have been depressed longer than expected in 2015, and we expect the 2020 Global COVID-19 pandemic to further reduce emissions ahead of normal reductions in 2020. Revenues have been down from an all-time high of over 1 billion in 2014 to revenues in the 600K to 700K range from 2015 to 2019.

Starting in 2019 we are reporting targets with base year of 2018 for 5 and 7 years ending in 2023 and 2025 for 22 Mid-level ATC's instead of 6 ATC and reporting emission data obtained since 2017 for these locations. This information has been updated in this year's CDP disclosures. To achieve the recommended reduction levels, Core Labs would need to set a target requiring a 45% reduction by 2030 from 2010 levels to stay under 1.5°C and reach net zero by 2050, using the IPCC special report published in October 2018. In comparison to 2018 emissions, Core Laboratories latest baseline year assessment, this equates to 12.5% reduction by 2023 for a 'well below 2 degree' scenario (WB2C) and 21% for a 1.5 degree scenario (1.5C). Emissions for the 21 sites would need to decrease from 50,748 tCO<sub>2</sub>e to 44,405 tCO<sub>2</sub>e by 2023 under the WB2C scenarios and or to 40,091 tCO<sub>2</sub>e under the 1.5C scenario. By 2025, reductions of 19% and 27% are required under the WB2C and 1.5C scenarios respectively from the baseline year of 2018. The information on targets and increased locations is available on our public web site in the Trucost report files. <https://www.corelab.com/cr/environmental-focus>

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**Target reference number**

Abs 3

**Year target was set**

2018

**Target coverage**

Company-wide

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

Scope 1+2 (location-based)

**Base year**

2018



**Covered emissions in base year (metric tons CO<sub>2</sub>e)**

17,031

**Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)**

100

**Target year**

2025

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

19

**Covered emissions in target year (metric tons CO<sub>2</sub>e) [auto-calculated]**

13,795.11

**Covered emissions in reporting year (metric tons CO<sub>2</sub>e)**

15,176

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

57.3258052653

**Target status in reporting year**

Underway

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

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

**Please explain (including target coverage)**

Our original 2015 science based target was expected to increase from 5642 tCO<sub>2</sub>e to 7598 tCO<sub>2</sub>e in 2020. Since that time, we have expanded our collection of data to dive deeper into our data to eliminate some modelling. We were also able to make some instant improvements from maintenance and replacement of equipment such as chillers and those using refrigerants. However, the main driver for emissions reducing instead of increasing has been that the oil markets have been depressed longer than expected in 2015, and we expect the 2020 Global COVID-19 pandemic to further reduce emissions ahead of normal reductions in 2020. Revenues have been down from an all-time high of over 1 billion

in 2014 to revenues in the 600K to 700K range from 2015 to 2019.

Starting in 2019 we are reporting targets with base year of 2018 for 5 and 7 years ending in 2023 and 2025 for 22 Mid-level ATC's instead of 6 ATC and reporting emission data obtained since 2017 for these locations. This information has been updated in this year's CDP disclosures. To achieve the recommended reduction levels, Core Labs would need to set a target requiring a 45% reduction by 2030 from 2010 levels to stay under 1.5°C and reach net zero by 2050, using the IPCC special report published in October 2018. In comparison to 2018 emissions, Core Laboratories latest baseline year assessment, this equates to 12.5% reduction by 2023 for a 'well below 2 degree' scenario (WB2C) and 21% for a 1.5 degree scenario (1.5C). Emissions for the 21 sites would need to decrease from 50,748 tCO<sub>2</sub>e to 44,405 tCO<sub>2</sub>e by 2023 under the WB2C scenarios and or to 40,091 tCO<sub>2</sub>e under the 1.5C scenario. By 2025, reductions of 19% and 27% are required under the WB2C and 1.5C scenarios respectively from the baseline year of 2018. The information on targets and increased locations is available on our public web site in the Trucost report files. <https://www.corelab.com/cr/environmental-focus>

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**Target reference number**

Abs 4

**Year target was set**

2015

**Target coverage**

Company-wide

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

Scope 1

**Base year**

2015

**Covered emissions in base year (metric tons CO<sub>2</sub>e)**

5,642

**Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)**

100

**Target year**

2020

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

5

**Covered emissions in target year (metric tons CO2e) [auto-calculated]**

5,359.9

**Covered emissions in reporting year (metric tons CO2e)**

3,247

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

848.9897199575

**Target status in reporting year**

Replaced

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

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

**Please explain (including target coverage)**

Our original 2015 science based target was expected to increase from 5642 tCO2e to 7598 tCO2e in 2020. Since that time, we have expanded our collection of data to dive deeper into our data to eliminate some modelling. We were also able to make some instant improvements from maintenance and replacement of equipment such as chillers and those using refrigerants. However, the main driver for emissions reducing instead of increasing has been that the oil markets have been depressed longer than expected in 2015. Revenues have been down from an all-time high of over 1 billion in 2014 to revenues in the 600K to 700K range in 2015-2019.

We have created targets covering 2019-2024 for 22 Mid-level ATC's instead of 6 ATC and collected data since 2017. This information will be included in next year's CDP disclosures when the science based targets are confirmed by Trucost and we have year over year data for the

increased country coverage. The information on targets and increased locations is available on our public web site in the Trucost report files.  
<https://www.corelab.com/cr/environmental-focus>

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**Target reference number**

Abs 5

**Year target was set**

2015

**Target coverage**

Company-wide

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

Scope 2 (location-based)

**Base year**

2015

**Covered emissions in base year (metric tons CO2e)**

7,211

**Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)**

100

**Target year**

2020

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

5

**Covered emissions in target year (metric tons CO2e) [auto-calculated]**

6,850.45

**Covered emissions in reporting year (metric tons CO2e)**

5,407

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

500.346692553

**Target status in reporting year**

Replaced

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

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

**Please explain (including target coverage)**

Our original 2015 science based target was expected to increase from 5642 tCO2e to 7598 tCO2e in 2020. Since that time, we have expanded our collection of data to dive deeper into our data to eliminate some modelling. We were also able to make some instant improvements from maintenance and replacement of equipment such as chillers and those using refrigerants. However, the main driver for emissions reducing instead of increasing has been that the oil markets have been depressed longer than expected in 2015. Revenues have been down from an all-time high of over 1 billion in 2014 to revenues in the 600K to 700K range in 2015-2019.

We have created targets covering 2019-2024 for 22 Mid-level ATC's instead of 6 ATC and collected data since 2017. This information will be included in next year's CDP disclosures when the science based targets are confirmed by Trucost and we have year over year data for the increased country coverage. The information on targets and increased locations is available on our public web site in the Trucost report files. <https://www.corelab.com/cr/environmental-focus>

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**Target reference number**

Abs 6

**Year target was set**

2015

**Target coverage**

Company-wide

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

Scope 1+2 (location-based)

**Base year**

2015

**Covered emissions in base year (metric tons CO<sub>2</sub>e)**

12,853

**Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)**

100

**Target year**

2020

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

5

**Covered emissions in target year (metric tons CO<sub>2</sub>e) [auto-calculated]**

12,210.35

**Covered emissions in reporting year (metric tons CO<sub>2</sub>e)**

8,654

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

653.3883140123

**Target status in reporting year**

Replaced



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

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

**Please explain (including target coverage)**

Our original 2015 science based target was expected to increase from 5642 tCO2e to 7598 tCO2e in 2020. Since that time, we have expanded our collection of data to dive deeper into our data to eliminate some modelling. We were also able to make some instant improvements from maintenance and replacement of equipment such as chillers and those using refrigerants. However, the main driver for emissions reducing instead of increasing has been that the oil markets have been depressed longer than expected in 2015. Revenues have been down from an all-time high of over 1 billion in 2014 to revenues in the 600K to 700K range in 2015-2019.

We have created targets covering 2019-2024 for 22 Mid-level ATC's instead of 6 ATC and collected data since 2017. This information will be included in next year's CDP disclosures when the science based targets are confirmed by Trucost and we have year over year data for the increased country coverage. The information on targets and increased locations is available on our public web site in the Trucost report files. <https://www.corelab.com/cr/environmental-focus>

**C4.2**

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

No other climate-related targets

**C4.3**

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

Yes

**C4.3a**

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

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
--	-----------------------	--

Under investigation		
To be implemented*		
Implementation commenced*		
Implemented*	1	10
Not to be implemented		

### C4.3b

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

---

**Initiative category & Initiative type**

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

5

**Scope(s)**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

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

30,000

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

250,000

**Payback period**



21-25 years

**Estimated lifetime of the initiative**

21-30 years

**Comment**

Project will remodel all facilities to increase efficiency and reduce the lease space. This will reduce the unused warehouse space and utilize the remaining space to increase our laboratory work capacity. savings will be in scope 2 energy consumption and reduction of monthly lease cost.

**C4.3c**

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

Method	Comment
Internal finance mechanisms	Investments requested from managers are considered by the Management Team. Suggestions and request are submitted on a Request for Authorization of Capital Expenditure (RACE) form for consideration. In this process one of the areas is Less Direct Operating Cost where savings must be proven in areas such as less building energy cost, reduced fuel usage by travel and/or energy efficient equipment replacement/purchase. During this process we are able to capture useful life, payback period and other critical data. This also gives the Management Team opportunity to suggest addition to the plan to decrease emissions, or denials where emission could increase from the activities. RACE forms must be completed for all expenditure greater than US \$3,000, and for all expenditures greater than \$50,000 RACE must be approved by the COO or the CFO. This ensures that significant investments are reviewed by members of the Management Team.
Employee engagement	Employees regularly receive training and instruction on reduction activities in the form of program such as the UN Compact compliance.

**C4.5**

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

No

## C5. Emissions methodology

### C5.1

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

#### Scope 1

---

**Base year start**

January 1, 2018

**Base year end**

December 31, 2018

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

5,642

**Comment**

SBTi recommends companies to screen several of the methods and choose the method and target that best drives emissions reductions to demonstrate sector leadership. In 2016, Core Laboratories set an internal economic-based SBT, however the SBTi has since updated its guidelines and recommendations. Following a review of appropriateness of all public approaches, Trucost considered two methods, Absolute-based and Economic-based, to set updated and expanded Core Laboratories science-based targets. Though the economic-based GEVA approach is included for reference, this no longer conforms to best available practice.

The following methods were used to calculate potential science-based targets for Core Laboratories:

1. Absolute-based: The absolute emission based approach sets targets based on tons of carbon equivalents (tCO<sub>2</sub>e). When referring to this method at a global level, the SBTi suggests using the scenarios outlined in climate reports such as the IPCC Assessment Reports.

For FY2018, Core Laboratories has a GHG footprint of 50,748 tCO<sub>2</sub>e, based on market-based scope 2 emissions. This is considered to be the base year against which to set targets as it is the latest available data. Two potential target dates were considered, 2023 (the shortest possible date for an SBT, with 5 -15 years recommended for SBT setting) and 2025 (simply as a milestone year).

2. Economic-based: The economy based approach sets targets based on tCO<sub>2</sub>e normalized by a financial or production figure (for example

tCO<sub>2</sub>e per \$m value added or per number of units sold).

The GHG Emissions per Unit of Value-Added (GEVA) target setting method equates a carbon budget to total global GDP and a company's share of emissions is determined by its gross profit, since the sum of all companies' gross profits worldwide equate to global GDP. In 2016, Core Laboratories set a GEVA based target across its six ATCs, with a 5% year-on-year reduction of emissions per value added unit. This actually equated to an absolute increase in emissions, due to predicted increase in gross profit over the timeframe.

Data Input: Primary data on energy consumption, refrigerant use and spend data on fuel usage for all ATCs, mid ATCs and Manufacturing sites  
Emission factor used: UK DEFRA 2019

## Scope 2 (location-based)

---

### Base year start

January 1, 2018

### Base year end

December 31, 2018

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

11,114

### Comment

SBTi recommends companies to screen several of the methods and choose the method and target that best drives emissions reductions to demonstrate sector leadership. In 2016, Core Laboratories set an internal economic-based SBT, however the SBTi has since updated its guidelines and recommendations. Following a review of appropriateness of all public approaches, Trucost considered two methods, Absolute-based and Economic-based, to set updated and expanded Core Laboratories science-based targets. Though the economic-based GEVA approach is included for reference, this no longer conforms to best available practice.

The following methods were used to calculate potential science-based targets for Core Laboratories:

1. Absolute-based: The absolute emission based approach sets targets based on tons of carbon equivalents (tCO<sub>2</sub>e). When referring to this method at a global level, the SBTi suggests using the scenarios outlined in climate reports such as the IPCC Assessment Reports.

For FY2018, Core Laboratories has a GHG footprint of 50,748 tCO<sub>2</sub>e, based on market-based scope 2 emissions. This is considered to be the

base year against which to set targets as it is the latest available data. Two potential target dates were considered, 2023 (the shortest possible date for an SBT, with 5 -15 years recommended for SBT setting) and 2025 (simply as a milestone year).

2. Economic-based: The economy based approach sets targets based on tCO<sub>2</sub>e normalized by a financial or production figure (for example tCO<sub>2</sub>e per \$m value added or per number of units sold).

The GHG Emissions per Unit of Value-Added (GEVA) target setting method equates a carbon budget to total global GDP and a company's share of emissions is determined by its gross profit, since the sum of all companies' gross profits worldwide equate to global GDP. In 2016, Core Laboratories set a GEVA based target across its six ATCs, with a 5% year-on-year reduction of emissions per value added unit. This actually equated to an absolute increase in emissions, due to predicted increase in gross profit over the timeframe.

#### Data

Input: Primary data on electricity consumption and purchased renewable electricity for all ATCs, mid ATCs and Manufacturing sites

Emission factor used:

Location based: IEA 2019 and US EPA 2018 eGRID factors (published in March 2020)

## Scope 2 (market-based)

---

### Base year start

January 1, 2018

### Base year end

December 31, 2018

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

12,490

### Comment

SBTi recommends companies to screen several of the methods and choose the method and target that best drives emissions reductions to demonstrate sector leadership. In 2016, Core Laboratories set an internal economic-based SBT, however the SBTi has since updated its guidelines and recommendations. Following a review of appropriateness of all public approaches, Trucost considered two methods, Absolute-based and Economic-based, to set updated and expanded Core Laboratories science-based targets. Though the economic-based GEVA

approach is included for reference, this no longer conforms to best available practice.

The following methods were used to calculate potential science-based targets for Core Laboratories:

1. Absolute-based: The absolute emission based approach sets targets based on tons of carbon equivalents (tCO<sub>2</sub>e). When referring to this method at a global level, the SBTi suggests using the scenarios outlined in climate reports such as the IPCC Assessment Reports.

For FY2018, Core Laboratories has a GHG footprint of 50,748 tCO<sub>2</sub>e, based on market-based scope 2 emissions. This is considered to be the base year against which to set targets as it is the latest available data. Two potential target dates were considered, 2023 (the shortest possible date for an SBT, with 5 -15 years recommended for SBT setting) and 2025 (simply as a milestone year).

2. Economic-based: The economy based approach sets targets based on tCO<sub>2</sub>e normalized by a financial or production figure (for example tCO<sub>2</sub>e per \$m value added or per number of units sold).

The GHG Emissions per Unit of Value-Added (GEVA) target setting method equates a carbon budget to total global GDP and a company's share of emissions is determined by its gross profit, since the sum of all companies' gross profits worldwide equate to global GDP. In 2016, Core Laboratories set a GEVA based target across its six ATCs, with a 5% year-on-year reduction of emissions per value added unit. This actually equated to an absolute increase in emissions, due to predicted increase in gross profit over the timeframe.

Data

Input: Primary data on electricity consumption and purchased renewable electricity for all ATCs, mid ATCs and Manufacturing sites

Emission factor used:

Market based: Residual mix emission factor from Green e for US and Canada; Association of Issuing Body (AIB) for UK and European sites

## C5.2

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

Defra Voluntary 2017 Reporting Guidelines

IEA CO<sub>2</sub> Emissions from Fuel Combustion

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

Other, please specify

IPCC Assessment Reports and the GHG Emissions per Unit of Value-Added (GEVA) target setting method uses by S&P Global Trucost.

## C5.2a

### **(C5.2a) Provide details of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.**

Core Laboratories N.V. engaged Trucost to assess its operational and value chain greenhouse gas (GHG) emissions in line with the WRI/WBCSD Corporate Standard (Scope 1 and 2) and Corporate Value Chain (Scope 3) Guidelines (GHG Protocol). The assessment will allow Core Lab to report its Scope 1, 2 and 3 GHG emissions in annual accounts and to the CDP Climate Change Questionnaire. Core Lab has already been reporting its company-wide Scope 1 and 2 GHG emissions to the CDP since 2014. Currently, Core Lab uses estimates of its company-wide emissions based on its sector of operation and revenue for reporting purposes. Core Lab engaged Trucost to improve its operational (Scope 1 and 2) GHG emission quantification methodology by integrating primary data. Furthermore, Trucost quantified Core Lab's Scope 3 GHG emissions according to the fifteen Scope 3 categories outlined in the Guidelines to help Core Lab understand and disclose its Scope 3 emissions for the first time. This operational and value chain GHG emission footprint will focus on six Advance Technology Centers (ATCs) located in the USA, UK, Netherlands, Canada, United Arab Emirates and Malaysia. Finally, Trucost helped Core Lab set as science based target for its Scope 1 and 2 emissions. Science based targets aim to help companies to work towards limiting the increase in global average temperatures to below 2°C, a limit agreed upon by leading climate scientists and governments to ensure long-term sustainability and profitability. Science-based target setting can spur ambition and generate the innovations needed to transition to a low-carbon, sustainable economy. CDP also encourages companies to set and disclose science based targets through its Climate Change Questionnaire. Trucost has assessed Core Lab's Scope 1, 2 and 3 GHG emissions in alignment with the GHG Protocol for its six Advance Technology Centers (ATCs) located in Rotterdam, Kuala Lumpur, Houston, Calgary, Abu Dhabi and Aberdeen in the financial year (FY) 2015. Please refer to the box on the right for further definitions on each Scope. In 2015, dual reporting for Scope 2 GHG emissions (associated with purchased electricity) has been introduced and is required by the CDP in its 2016 CDP Climate Change Questionnaire. The dual reporting distinguishes between location based and market based Scope 2 emissions, which are further explained in the box to the right. The logic of dual reporting is to encourage consistency across reporting companies, but also to encourage a move towards renewable energy sources as 'business as usual' of market based Scope 2 GHG emissions will likely reflect an increasing emission factor as contractual obligations are gained for renewable energy types and the residual mix remains less 'green'. Trucost calculated both, market and location based Scope 2 GHG emissions. Aberdeen and Houston were able to provide a supplier specific emission factor and location specific grid mix respectively, which were used to calculate market based Scope 2 emissions. Each ATC collected and provided information regarding its stationary and mobile energy consumption and refrigerants (kg of refrigerant replacement was used as an approximation for the amount of gas leaked), required for the quantification of Scope 1 and 2 GHG emissions.

## C6. Emissions data

### C6.1

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

#### Reporting year

---

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

4,795

##### Start date

January 1, 2019

##### End date

December 31, 2019

##### Comment

Core Laboratories N.V. assesses its operational and value chain greenhouse gas (GHG) emissions in line with the WRI/WBCSD Corporate Standard (Scope 1 and 2) Guidelines. In FY2019, Core Lab emitted 46,821 tCO<sub>2</sub>e of GHG emissions throughout its value chain. This represents a decrease of 6% over 2018 emissions. During this same year the revenue increased by 42% and number of full-time employees (FTEs) decreased by 8%. Scope 1 emissions have increased slightly due to an increase in fugitive emissions from refrigerant use, while overall combined GHG emissions for scope 1 & 2 (location based) has decreased by 3%. The total operational GHG emissions (scope 1 and 2 location-based) for FY2019 are 15,176 tCO<sub>2</sub>e, approximately 57% of which is from the six ATCs. Scope 1 emissions contribute 32% of Scope 1 & 2, comprising 10% from vehicle fuel use, 13% from refrigerants (fugitive emissions) and remaining 9% from natural gas heating. While refrigerants increased between 2018 to 2019 from 1,259 tCO<sub>2</sub>e to 1,917 tCO<sub>2</sub>e, due to the mechanical failure of a large chiller unit in the United States, Natural gas heating (stationary energy) reduced from 1,677 tCO<sub>2</sub>e to 1,357 tCO<sub>2</sub>e, and Vehicle fuel use (mobile transport reduced from 1,605 tCO<sub>2</sub>e to 1,520 tCO<sub>2</sub>e. Looking forward to 2020 without the increase from refrigerants, and the current crude oil market downturn in activity along with business disruptions from the COVID-19 pandemic, we expect Scope 1 emissions to be lower significantly.

#### Past year 1

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**Gross global Scope 1 emissions (metric tons CO2e)**

4,541

**Start date**

January 1, 2018

**End date**

December 31, 2018

**Comment**

Scope 1 emissions contribute 29%, comprising 10% from vehicle fuel use, 8% from refrigerants (fugitive emissions) and remaining 11% from natural gas heating. Operational footprint of the six ATCs increased by 16%, most significantly due to an increase in natural gas use, following a substantial decline in 2017. A breakdown of emissions per division provides more insights of the emission sources across Core Lab's operations. Though there are more mid-level ATCs than ATCs and manufacturing sites combined, they are only associated with 28% of the total operational emissions, with only 19% of scope 1 due to low natural gas heating use. Manufacturing sites had only 18% of scope 1 emissions, with no fugitive emissions from refrigerant use at either site.

**Past year 2**

---

**Gross global Scope 1 emissions (metric tons CO2e)**

3,800

**Start date**

January 1, 2017

**End date**

December 31, 2017

**Comment**

Core Lab has already been reporting its scope 1 and 2 GHG emissions for its six Advance Technology Centers (ATCs) to the CDP since 2014. In FY 2017, Core labs has extended its analysis to include thirteen mid-level ATCs and two manufacturing sites in addition to the six ATCs. The



total operational GHG emissions (scope 1 and 2 location-based) for FY2017 are 15,784 tCO<sub>2</sub>e, approximately 56% of which is from the six ATCs. Scope 1 emissions contribute 24%, comprising 11% from vehicle fuel use, 5% from refrigerants (fugitive emissions) and remaining 8% from natural gas heating.

Operational footprint of the six ATCs decreased by 3%, most significantly due to a reduction in natural gas use, though all sources of emissions were reduced with the exception of vehicle use and fugitive emissions from refrigerants.

## C6.2

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

#### Row 1

---

##### **Scope 2, location-based**

We are reporting a Scope 2, location-based figure

##### **Scope 2, market-based**

We have operations where we are able to access electricity supplier emission factors or residual emissions factors, but are unable to report a Scope 2, market-based figure

##### **Comment**

In 2017, 2018 and 2019 a further 15 sites were added to the scope of the assessment. Core Lab has already been reporting its scope 1 and 2 GHG emissions for its six Advance Technology Centers (ATCs) to the CDP since 2014. In FY2019, the operational and value chain GHG emissions analysis includes 12 mid-level ATCs and two manufacturing sites, with data from 2017-2019 to increase our data collection and boundary. Due to lack of historic data, year-on-year comparisons, and target comparisons, the 6 ATC used in previous years remained our boundary for CDP reporting in 2017 and 2018. The Scope 2 emissions (tCO<sub>2</sub>e) for the combined 21 locations were 2017 11,984 location-based and 13,481 market-based, and 2018 11,114 location-based and 12,693 market-based. We will continue to increase and adjust CDP reporting boundary in upcoming years with a new science based targets and backdated information for year over year comparisons. Core Lab's goal is to reach reporting of the entire company by 2025 to 2027.

## C6.3

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

#### Reporting year

---

**Scope 2, location-based**

10,381

**Start date**

January 1, 2019

**End date**

December 31, 2019

**Comment**

The majority of operational GHG emissions stem from electricity consumption (scope 2 emissions), contributing 68% to the operational GHG emissions. In FY2018, the total electricity sourced from renewable sources was approximately 9% whereas in FY2019 it has increased to 15%. For FY2019, the market-based Scope 2 emissions are 11,904 tCO<sub>2</sub>e, which were reduced by 6% from FY2018. The total energy consumption in FY2019 across all sites, which is 43,695 MWh, has decreased approximately by 2% from the FY2018 consumption of 45,807 MWh. The energy use across scope 1 and 2 is dominated by non-renewable electricity use, which contributes to 60% of the total FY2019 energy consumption. The renewable electricity represents 9% of the total energy use in FY2019. A breakdown of emissions per division provides more insights of the emission sources across Core Lab's operations. Though there are more mid-level ATCs than ATCs they are only associated with 23% of the total operational emissions. Manufacturing sites had only 20% of total operational emissions, with no fugitive emissions from refrigerant use at both sites and low natural gas and vehicle fuel consumption values.

Looking forward to 2020 and the current crude oil market downturn in activity along with business disruptions from the COVID-19 pandemic, we expect Scope 2 emissions to be lower and in line with our SBT's.

#### Past year 1

---

**Scope 2, location-based**

11,114

**Start date**

January 1, 2018

**End date**

December 31, 2018

**Comment**

Total energy consumption across all sites in 2018 was 45,807 MWh, which is 2% decreased from the 2017 consumption of 46,760 MWh. Energy use across scope 1 and 2 is dominated from non-renewably sourced electricity, associated with 60% of the total in 2018, though renewable electricity represents 5% of the total. In FY2017, approximately 15% of the electricity used in the ATCs was sourced from renewables, a significant improvement over the 1% sourced from renewables in 2016. In FY2018, this increased slightly to 16% of the ATC's total combined electricity from renewable sources, as per previous years associated with both Aberdeen and Houston partially sourcing electricity from renewable sources. Market-based scope 2 emissions have decreased by 5.9%, and 7.3% for location-based. Across all sites, 8% of electricity is sourced from renewables.

**Past year 2**

---

**Scope 2, location-based**

11,984

**Start date**

January 1, 2017

**End date**

December 31, 2017

**Comment**

Core Lab has already been reporting its scope 1 and 2 GHG emissions for its six Advance Technology Centers (ATCs) to the CDP since 2014. In FY 2017, Core labs has extended its analysis to include thirteen mid-level ATCs and two manufacturing sites in addition to the six ATCs. The majority of operational GHG emissions stem from electricity consumption (scope 2 emissions), contributing 76% to the operational GHG

emissions. Scope 1 emissions contribute 24%, comprising 11% from vehicle fuel use, 5% from refrigerants (fugitive emissions) and remaining 8% from natural gas heating. Operational footprint of the six ATCs decreased by 3%, most significantly due to a reduction in natural gas use, though all sources of emissions were reduced with the exception of vehicle use and fugitive emissions from refrigerants. In FY2016, only 1% of the electricity used in the ATCs was sourced from renewables – approximately 29% of Aberdeen’s electricity. In FY2017, Aberdeen increased this to almost half of its electricity procured, and Houston started sourcing from renewables, resulting in 15% of the ATC’s total combined electricity from renewable sources. Core Lab’s transition towards renewable energy sourcing in FY2017 demonstrates significant contribution to emission reduction. While the ATC electricity consumption has increased by 21%, market-based scope 2 emissions have decreased by 5.8%. Across all sites, 11% of electricity is sourced from renewables.

## C6.4

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

Yes

### C6.4a

**(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.**

---

#### Source

In a small number of cases approximately 10% our field service representatives may occupy small office spaces and/or be assigned storage areas on client sites per our contact agreement to provide services. These are temporary spaces occupied for short periods of time for which we do not have lease agreements or any obligation to pay for occupation.

#### Relevance of Scope 1 emissions from this source

Emissions are not relevant

#### Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

**Relevance of market-based Scope 2 emissions from this source (if applicable)**

Emissions are not relevant

**Explain why this source is excluded**

These spaces are allotted by the client per our service agreement in refineries, remote field locations or offshore platforms for our employees to complete work assignments, temporary lodging or storage of samples. These spaces are typically for just one or two days, or up to a month, and in rare cases longer in remote assignments in remote locations around the globe. In these spaces the facilities can be shared with other contractors or client personnel and are temporary. Being part of the service agreements, we have no obligation to lease any of the spaces, pay for electricity, or be responsible in any way. Due to the geographic distribution, small facility size, sharing of space, short duration and temporary nature we consider contributions to GHG from our temporary field activities to be a negligible contribution to the total Scope 1 & 2 emissions. Further, data from our client to calculate an accurate tonnes CO<sub>2</sub>e is not available and often could not be separated from their total usages in a given facility and may in fact be the client responsibility to report as part of their overall emission.

## C6.5

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

**Purchased goods and services**

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**Evaluation status**

Relevant, calculated

**Metric tonnes CO<sub>2</sub>e**

15,999

**Emissions calculation methodology**

Data input: Trucost used Core Lab's supplier expenditure

Emission factor used: Trucost EEI O model and sector estimation factors (incl. emissions of all supply chain tiers up to and including raw material extraction)

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

#### **Please explain**

This year, Trucost conducted in-depth GHG analysis of the two Scope 3 categories – category 1, purchased goods & services and category 2, capital goods, which represents the supply chain of Core Laboratories. Trucost uses supplier-specific data when available and if necessary, supplements this information with secondary industry average impact data to fill any data gaps. This approach is in accordance with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard and provides a comprehensive overview of the life cycle based impacts embedded within a company's supply chain, from raw material sourcing through manufacturing (cradle to gate).

Trucost obtained Core Laboratories' purchase ledger for the FY2019 for the six ATCs, 12 mid-level ATCs and 2 Manufacturing units and cleaned the list of transactions and mapped each unique line of expenditure to the most appropriate Trucost sector. Trucost then used its proprietary environmentally extended Input-Output (EEI-O) life cycle based model to quantify the environmental performance of Core Laboratories' supply chain.

These modelled estimates are then refined using actual supplier data from the Trucost Environmental Register, a database of environmental disclosures from publicly listed global companies with which Trucost engages annually to collect environmental data disclosed publicly or directly to Trucost. Supplier impacts were apportioned from company-level environmental data disclosures based on Core Laboratories' expenditure in relation to each supplier's total revenue.

In this assessment after excluding some suppliers which are out of scope of purchased goods and services and capital goods, Trucost considered purchase ledger, covering 2,505 companies and \$30million in expenditure for FY2019. Suppliers with relatively small expenditures were excluded because their environmental impact is immaterial. Trucost analyzed over 90% of the expenditure provided.

Based on the spend analysis, Core Lab's supply chain total emissions in FY2019 are 20,125 tCO<sub>2</sub>e, with 79% coming from purchased goods & services.

#### **Capital goods**

---

#### **Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

4,126

**Emissions calculation methodology**

Data input: Trucost used Core Lab's supplier expenditure

Emission factor used: Trucost EEI O model and sector estimation factors (incl. emissions of all supply chain tiers up to and including raw material extraction)

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

**Please explain**

This year, Trucost conducted in-depth GHG analysis of the two Scope 3 categories – category 1, purchased goods & services and category 2, capital goods, which represents the supply chain of Core Laboratories. Trucost uses supplier-specific data when available and if necessary, supplements this information with secondary industry average impact data to fill any data gaps. This approach is in accordance with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard and provides a comprehensive overview of the life cycle based impacts embedded within a company's supply chain, from raw material sourcing through manufacturing (cradle to gate).

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These modelled estimates are then refined using actual supplier data from the Trucost Environmental Register, a database of environmental disclosures from publicly listed global companies with which Trucost engages annually to collect environmental data disclosed publicly or directly to Trucost. Supplier impacts were apportioned from company-level environmental data disclosures based on Core Laboratories' expenditure in relation to each supplier's total revenue.

In this assessment after excluding some suppliers which are out of scope of purchased goods and services and capital goods, Trucost

considered purchase ledger, covering 2,505 companies and \$30million in expenditure for FY2019. Suppliers with relatively small expenditures were excluded because their environmental impact is immaterial. Trucost analyzed over 90% of the expenditure provided.

Based on the spend analysis, Core Lab's supply chain total emissions in FY2019 are 20,125 tCO<sub>2</sub>e, with 79% coming from purchased goods & services.

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

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#### **Evaluation status**

Relevant, calculated

#### **Metric tonnes CO<sub>2</sub>e**

2,381

#### **Emissions calculation methodology**

Data input: electricity and energy consumption data from Core Lab.

Emission factor used: energy distribution and transmissions emission factors from Defra (2019) UK Government GHG Conversion Factors for Company Reporting.

#### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

#### **Please explain**

This year, Trucost conducted in-depth GHG analysis of the two Scope 3 categories – category 1, purchased goods & services and category 2, capital goods, which represents the supply chain of Core Laboratories. Trucost uses supplier-specific data when available and if necessary, supplements this information with secondary industry average impact data to fill any data gaps. This approach is in accordance with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard and provides a comprehensive overview of the life cycle based impacts embedded within a company's supply chain, from raw material sourcing through manufacturing (cradle to gate).

Trucost obtained Core Laboratories' purchase ledger for the FY2019 for the six ATCs, 12 mid-level ATCs and 2 Manufacturing units and cleaned the list of transactions and mapped each unique line of expenditure to the most appropriate Trucost sector. Trucost then used its



proprietary environmentally extended Input-Output (EEI-O) life cycle based model to quantify the environmental performance of Core Laboratories' supply chain.

These modelled estimates are then refined using actual supplier data from the Trucost Environmental Register, a database of environmental disclosures from publicly listed global companies with which Trucost engages annually to collect environmental data disclosed publicly or directly to Trucost. Supplier impacts were apportioned from company-level environmental data disclosures based on Core Laboratories' expenditure in relation to each supplier's total revenue.

In this assessment after excluding some suppliers which are out of scope of purchased goods and services and capital goods, Trucost considered purchase ledger, covering 2,505 companies and \$30million in expenditure for FY2019. Suppliers with relatively small expenditures were excluded because their environmental impact is immaterial. Trucost analyzed over 90% of the expenditure provided.

Based on the spend analysis, Core Lab's supply chain total emissions in FY2019 are 20,125 tCO<sub>2</sub>e, with 79% coming from purchased goods & services.

## Upstream transportation and distribution

---

### Evaluation status

Relevant, calculated

### Metric tonnes CO<sub>2</sub>e

1,158

### Emissions calculation methodology

Data input: Core Lab's spend on various modes of transportation

Emission factor used: Consolidated Core Lab's spend on upstream transportation and distribution combined with Trucost's EEI O model to estimate emissions

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

This year, Trucost conducted in-depth GHG analysis of the two Scope 3 categories – category 1, purchased goods & services and category 2, capital goods, which represents the supply chain of Core Laboratories. Trucost uses supplier-specific data when available and if necessary, supplements this information with secondary industry average impact data to fill any data gaps. This approach is in accordance with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard and provides a comprehensive overview of the life cycle based impacts embedded within a company's supply chain, from raw material sourcing through manufacturing (cradle to gate).

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These modelled estimates are then refined using actual supplier data from the Trucost Environmental Register, a database of environmental disclosures from publicly listed global companies with which Trucost engages annually to collect environmental data disclosed publicly or directly to Trucost. Supplier impacts were apportioned from company-level environmental data disclosures based on Core Laboratories' expenditure in relation to each supplier's total revenue.

In this assessment after excluding some suppliers which are out of scope of purchased goods and services and capital goods, Trucost considered purchase ledger, covering 2,505 companies and \$30million in expenditure for FY2019. Suppliers with relatively small expenditures were excluded because their environmental impact is immaterial. Trucost analyzed over 90% of the expenditure provided.

Based on the spend analysis, Core Lab's supply chain total emissions in FY2019 are 20,125 tCO<sub>2</sub>e, with 79% coming from purchased goods & services.

## **Waste generated in operations**

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### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO<sub>2</sub>e**

282

### **Emissions calculation methodology**

Data input: Core Lab's spend on waste management

Emission factor used: waste disposal factors (municipal and commercial waste) from Defra (2019) UK Government GHG Conversion Factors for Company Reporting. Consolidated Core Lab's spend on waste disposal and treatment combined with Trucost's EEI O model to estimate emissions

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

### **Please explain**

This year, Trucost conducted in-depth GHG analysis of the two Scope 3 categories – category 1, purchased goods & services and category 2, capital goods, which represents the supply chain of Core Laboratories. Trucost uses supplier-specific data when available and if necessary, supplements this information with secondary industry average impact data to fill any data gaps. This approach is in accordance with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard and provides a comprehensive overview of the life cycle based impacts embedded within a company's supply chain, from raw material sourcing through manufacturing (cradle to gate).

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These modelled estimates are then refined using actual supplier data from the Trucost Environmental Register, a database of environmental disclosures from publicly listed global companies with which Trucost engages annually to collect environmental data disclosed publicly or directly to Trucost. Supplier impacts were apportioned from company-level environmental data disclosures based on Core Laboratories' expenditure in relation to each supplier's total revenue.

In this assessment after excluding some suppliers which are out of scope of purchased goods and services and capital goods, Trucost considered purchase ledger, covering 2,505 companies and \$30million in expenditure for FY2019. Suppliers with relatively small expenditures were excluded because their environmental impact is immaterial. Trucost analyzed over 90% of the expenditure provided.

Based on the spend analysis, Core Lab's supply chain total emissions in FY2019 are 20,125 tCO<sub>2</sub>e, with 79% coming from purchased goods & services.

## Business travel

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### Evaluation status

Relevant, calculated

### Metric tonnes CO<sub>2</sub>e

2,208

### Emissions calculation methodology

Data input: Core Lab's spend on business travel and mileage. For certain sites e missions data is provided by Core Lab

Emission factor used: Total emissions are estimated by combining the emissions from ( i ) Mileage data combined with DEFRA 2019 factors; (ii)

The consolidated Core Lab's spend on business travel combined with Trucost's EEI O model to estimate emissions; and (iii) emissions provided for certain sites.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

Flight emission data collected and provided by travel agent ATPI using DEFRA conversion factors as published by the UK government (<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019>). Although this is UK based, we still use the same definition to apply to flights globally, based on flight distance / cabin class / departure year. The international haul is based on

- Domestic Equivalent (0-300 miles)
- Short-Haul (300-2400 miles)
- Long-Haul (>2400 miles)

We prefer the DEFRA definition because it is a recognized environmental (not travel) institution, and the factors used are highly transparent as they are freely available on the web.

## Employee commuting

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**Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

3,920

**Emissions calculation methodology**

Data input: transportation mode and distance travelled

Emission factors used: The distanced travelled for each transportation mode is combined with transport emissions factors from Defra (2019) UK Government GHG Conversion Factors for Company Reporting.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

**Please explain**

This year, Trucost conducted in-depth GHG analysis of the two Scope 3 categories – category 1, purchased goods & services and category 2, capital goods, which represents the supply chain of Core Laboratories. Trucost uses supplier-specific data when available and if necessary, supplements this information with secondary industry average impact data to fill any data gaps. This approach is in accordance with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard and provides a comprehensive overview of the life cycle based impacts embedded within a company's supply chain, from raw material sourcing through manufacturing (cradle to gate).

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These modelled estimates are then refined using actual supplier data from the Trucost Environmental Register, a database of environmental disclosures from publicly listed global companies with which Trucost engages annually to collect environmental data disclosed publicly or directly to Trucost. Supplier impacts were apportioned from company-level environmental data disclosures based on Core Laboratories' expenditure in relation to each supplier's total revenue.

In this assessment after excluding some suppliers which are out of scope of purchased goods and services and capital goods, Trucost considered purchase ledger, covering 2,505 companies and \$30million in expenditure for FY2019. Suppliers with relatively small expenditures were excluded because their environmental impact is immaterial. Trucost analyzed over 90% of the expenditure provided.

Based on the spend analysis, Core Lab's supply chain total emissions in FY2019 are 20,125 tCO<sub>2</sub>e, with 79% coming from purchased goods & services.

### **Upstream leased assets**

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#### **Evaluation status**

Relevant, calculated

#### **Metric tonnes CO<sub>2</sub>e**

723

#### **Emissions calculation methodology**

Data input: Core Lab's expenditure amount on leasing offices and other assets

Emission factors used: Spend data combined with Trucost's EEI O Model

#### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

#### **Please explain**

This year, Trucost conducted in-depth GHG analysis of the two Scope 3 categories – category 1, purchased goods & services and category 2, capital goods, which represents the supply chain of Core Laboratories. Trucost uses supplier-specific data when available and if necessary, supplements this information with secondary industry average impact data to fill any data gaps. This approach is in accordance with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard and provides a comprehensive overview of the life cycle based impacts embedded within a company's supply chain, from raw material sourcing through manufacturing (cradle to gate).

Trucost obtained Core Laboratories' purchase ledger for the FY2019 for the six ATCs, 12 mid-level ATCs and 2 Manufacturing units and cleaned the list of transactions and mapped each unique line of expenditure to the most appropriate Trucost sector. Trucost then used its

proprietary environmentally extended Input-Output (EEI-O) life cycle based model to quantify the environmental performance of Core Laboratories' supply chain.

These modelled estimates are then refined using actual supplier data from the Trucost Environmental Register, a database of environmental disclosures from publicly listed global companies with which Trucost engages annually to collect environmental data disclosed publicly or directly to Trucost. Supplier impacts were apportioned from company-level environmental data disclosures based on Core Laboratories' expenditure in relation to each supplier's total revenue.

In this assessment after excluding some suppliers which are out of scope of purchased goods and services and capital goods, Trucost considered purchase ledger, covering 2,505 companies and \$30million in expenditure for FY2019. Suppliers with relatively small expenditures were excluded because their environmental impact is immaterial. Trucost analyzed over 90% of the expenditure provided.

Based on the spend analysis, Core Lab's supply chain total emissions in FY2019 are 20,125 tCO<sub>2</sub>e, with 79% coming from purchased goods & services.

### Downstream transportation and distribution

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**Evaluation status**

Not evaluated

**Please explain**

No onward transportation or distribution of sold goods associated with the specific sites included in assessment.

### Processing of sold products

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**Evaluation status**

Not evaluated

**Please explain**

Core Laboratories Advanced Technology Center provide technical reports and laboratory analysis to the oil and gas industry. As such no products require onward processing and therefore no emissions are generated.

## Use of sold products

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### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

30

### Emissions calculation methodology

Data Input: Core Labs 2019 product sales in revenue and units

Emission factors used: Trucost reviewed the range of products manufactured identifying which had material emissions during use. Impacts were determined to be most associated with explosive charges. Emissions calculated based on size and type of munition, and number of units sold combined with EPA 2016 and Ecolnvent (2017) emission factors.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

### Please explain

Use of sold products is for the use of explosive charges that are, in almost all cases, detonated below ground by the Oil & Gas segment. These include perforators, power charges, initiating systems, pipe recovery tools, bridge plugs and metal gun systems.

## End of life treatment of sold products

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### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

4

### Emissions calculation methodology

Data Input: Core Labs 2019 product sales in revenue and units

Emission factors used: Most products are either inert or are destroyed in use (such as explosive charges) therefore end of life impacts are



immaterial However, Trucost reviewed the range of products manufactured identifying the emissions associated with disposal of sold products. Emissions calculated based on size and type of munition, and number of units sold combined with EcoInvent (2017) emission factors for end of life treatment of steel.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

**Please explain**

Core Laboratories Advanced Technology Center provide technical reports and laboratory analysis to the oil and gas industry. Manufacturing of munitions for the Oil & Gas segment, being detonated at extreme depths at well sites, have no remaining product to treat. As such no products require end of life treatment and therefore no emissions are generated

**Downstream leased assets**

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**Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

794

**Emissions calculation methodology**

Data input: Core Lab's revenue amount generated by sub leased assets  
Emission factors used: Revenue data combined with Trucost's EEI O Model

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

**Please explain**

Downstream leased assets represent 3% or Scope 3 and is mainly one service located at one facility in Canada.

**Franchises**

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**Evaluation status**

Not evaluated

**Please explain**

Core Laboratories does not have any franchise agreements within the current boundary and scope of activities.

**Investments**

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**Evaluation status**

Not relevant, explanation provided

**Please explain**

Core Laboratories have no material investments that would be relevant to its value chain emissions

**Other (upstream)**

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**Evaluation status**

Not relevant, explanation provided

**Please explain**

Not relevant in any of our activities after review of complete 2019 ledger expenditures.

**Other (downstream)**

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**Evaluation status**

Not relevant, explanation provided

**Please explain**

Not relevant in any of our activities after review of complete 2019 ledger expenditures.

## C6.7

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

No

## C6.10

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

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**Intensity figure**

0.000058

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

15,176

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

260,000,000

**Scope 2 figure used**

Location-based

**% change from previous year**

7.41

**Direction of change**

Increased

**Reason for change**

Increases for the intensity figure is due mostly to revenue decreases from 302 Million in 2018 to 260 Million in 2019, the result of the global downturns in crude oil price and market during the entirety of 2019. The company did put in place cost saving measures, that reduced to company headcount and footprint, during 2019, but some lag was experienced realizing these measures. Measures in 2019 included

headcount reduction, operations consolidations, location consolidations, closure of some operations, reductions in business travel and reductions in air travel. Business travel was restricted in 2019, and further restricted in 2020 due to the pandemic, and IT infrastructure capability for global virtual team meetings has been expanded throughout the company.

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**Intensity figure**

7.45

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

15,176

**Metric denominator**

full time equivalent (FTE) employee

**Metric denominator: Unit total**

2,036

**Scope 2 figure used**

Location-based

**% change from previous year**

5.37

**Direction of change**

Increased

**Reason for change**

Increases for the (FTE) intensity figure is due mostly to revenue decreases from 302 Million in 2018 to 260 Million in 2019, the result of the global downturns in crude oil price and market during the entirety of 2019. The company did put in place cost saving measures, that reduced to company headcount and footprint, during 2019, but some lag was experienced realizing these measures. As a result, headcount was reduced from 2,214 in 2018 to 2,036 in 2019, and further reductions have taken place reducing headcount to approximately 1,800 in 2020 due to continued crude oil market conditions and reduced petroleum product consumption during the COVID-19 pandemic.

## C7. Emissions breakdowns

### C7.1

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

No

### C7.2

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

Country/Region	Scope 1 emissions (metric tons CO <sub>2</sub> e)
Australia	8.42
Canada	1,954.45
Belgium	35.95
Colombia	20.35
Indonesia	117.23
Netherlands	176.73
Malaysia	16.9
Russian Federation	698.08
Sweden	156.58
United Arab Emirates	104.01
United Kingdom of Great Britain and Northern Ireland	131.14
United States of America	1,374.9

## C7.3

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

By activity

### C7.3c

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

Activity	Scope 1 emissions (metric tons CO <sub>2</sub> e)
Advanced Technology Centers (ATC's) - 6 ATC's that conduct all of Core Laboratories Services located in United States, Canada, United Kingdom, Middle East, Malaysia and Netherlands.	3,247
Mid-Level Advanced Technology Centers (Mid-ATC's) - 12 Mid-Level ATC's that conduct a suite of Core Laboratories services tailored to the region of operation, and client support located in Colombia, Indonesia, Australia, Belgium, Russia, Netherlands, Panama, Sweden and United States.	1,301
Manufacturing - 2 locations that manufacture oil & field detonation devices for downhole operations related to perforation and pipe systems location in United States and Canada.	247

## C7.5

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

Country/Region	Scope 2, location-based (metric tons CO <sub>2</sub> e)	Scope 2, market-based (metric tons CO <sub>2</sub> e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Australia	51.71	51.71	60.35	0
Canada	2,455.1	3,327.62	3,596.64	0
Belgium	119.83	116.1	424.04	0

Colombia	68.3	68.3	355.98	0
Indonesia	248.49	248.49	170.07	0
Netherlands	702.4	840.98	1,246.25	0
Malaysia	458.67	458.67	676.83	0
Russian Federation	966.38	966.38	758.98	0
Sweden	156.58	156.58	448.29	448.29
United Arab Emirates	780.99	780.99	1,027.43	0
United Kingdom of Great Britain and Northern Ireland	242.11	325.14	657.17	172.18
United States of America	8,918.12	9,350.52	20,427.81	2,916.25
Panama	7.1	7.1	344.32	306.44

## C7.6

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

By activity

### C7.6c

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

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Advanced Technology Centers (ATC's) - 6 ATC's that conduct all of Core Laboratories Services located in United States, Canada, United Kingdom, Middle East, Malaysia and Netherlands.	5,407	6,389

Mid-Level Advanced Technology Centers (Mid-ATC's) - 12 Mid-Level ATC's that conduct a suite of Core Laboratories services tailored to the region of operation, and client support located in Colombia, Indonesia, Australia, Belgium, Russia, Netherlands, Panama, Sweden and Untied States.	2,219	2,382
Manufacturing - 2 locations that manufacture oil & field detonation devices for downhole operations related to perforation and pipe systems location in United States and Canada.	2,755	3,133

### C7.9

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

Decreased

### C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	109.95	Increased	15	The majority of operational GHG emissions stem from electricity consumption (scope 2 emissions), contributing 68% to the operational GHG emissions. In FY2018, the total electricity sourced from renewable sources was approximately 9% whereas in FY2019 it has increased to 15%. Total energy consumption in FY2019 across all sites, which is 43,695 MWh. This has decreased approximately by 2% from the FY2018 consumption of 45,807 MWh. The energy use across scope 1 and 2 is dominated by non-renewable electricity use,



				which contributes to 60% of the total FY2019 energy consumption. The renewable electricity represents 9% of the total energy use in FY2019.
Other emissions reduction activities				
Divestment				
Acquisitions				
Mergers				
Change in output				
Change in methodology				
Change in boundary				
Change in physical operating conditions				
Unidentified				
Other				

### C7.9b

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

Location-based

## C8. Energy

### C8.1

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

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

### C8.2

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

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

### C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	13,545	13,545

Consumption of purchased or acquired electricity		3,933	26,217	30,150
Consumption of self-generated non-fuel renewable energy		0		0
Total energy consumption		3,933	39,762	43,965

## C8.2b

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

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

## C8.2c

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

**Fuels (excluding feedstocks)**

Natural Gas

**Heating value**

HHV (higher heating value)



**Total fuel MWh consumed by the organization**

7,275.97

**Emission factor**

1,357

**Unit**

metric tons CO2 per MWh

**Emissions factor source**

Combined FY2019 actual energy consumption data and applied energy distribution and transmissions emission factors from Defra, 2019.

**Comment**

**C8.2d**

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	0	0	0	0
Heat	7,275.97	7,275.97	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

## C9. Additional metrics

### C9.1

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

## C10. Verification

### C10.1

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

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

### C10.2

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

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

## C11. Carbon pricing

### C11.1

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

No, and we do not anticipate being regulated in the next three years

### C11.2

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

No

### C11.3

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

Yes

### C11.3a

**(C11.3a) Provide details of how your organization uses an internal price on carbon.**

---

**Objective for implementing an internal carbon price**

Change internal behavior

Drive energy efficiency

Stress test investments

Other, please specify

Comparison to peer group in Oil & Gas Service Companies

## **GHG Scope**

- Scope 1
- Scope 2
- Scope 3

## **Application**

Benchmark internal carbon price is used at senior management to account for future potential increases in carbon pricing regulations across operating geographies, and which operating geographies are at the greatest potential risk due to rising carbon prices. How future carbon prices could affect operating margins. A view of our carbon pricing tool is available in our CSR report uploaded in question C12.4 or on our public web site at [https://www.corelab.com/cr/cms/docs/Core\\_Lab\\_Annual\\_Sustainability\\_Report\\_2019.pdf](https://www.corelab.com/cr/cms/docs/Core_Lab_Annual_Sustainability_Report_2019.pdf)

## **Actual price(s) used (Currency /metric ton)**

3

## **Variance of price(s) used**

The actual used price of 3 USD/metric ton 2020 is set from moderate price scenario 2 degree aligned - delayed action. Other prices used for stress testing and peer comparison include:

Low - Modelled estimates of the future carbon prices taking account of policy commitments and plans announced by countries as of mid-2016, including climate change pledges under the Paris Agreement. This scenario is not consistent with limiting climate change to 2 degree Celsius. Based on OECD/IEA(2017).

Moderate - Hybrid scenario recognizing the long-term goal under the Paris Agreement of limiting climate change to 2 degrees Celsius but acknowledging that current commitments are insufficient to achieve this goal. Carbon process rise more slowly in the short and medium term based on country commitments under the Paris Agreement but reach a 2 degree aligned price by 2050. Based on OECD/IEA (2017) and Trucost analysis.

High - Modelled estimates of the future carbon price necessary to achieve 66% change of limited climate change to 2 degrees Celsius. Based on OECD/IEA (2017).

## **Type of internal carbon price**

Shadow price

### **Impact & implication**

Business model stress test of carbon prices could affect operating margins and are considered against three scenarios:

1. Low Carbon Price Scenario - Paris Agreement Commitments,
2. Moderate Carbon Price Scenario -2 Degree Aligned - Delayed Action,
3. High Carbon Price Scenario: 2 Degree Aligned.

These are considered at 2019, 2020 and 2030 ranging from \$1 USD/tonne CO<sub>2</sub>e Low scenario 2020 to \$13 USD/tonne CO<sub>2</sub>e High scenario 2030.

Currently the top 5 operating geographies at greatest potential risk due to rising carbon prices are North America, US - Texas, Canada - Alberta, Russian Federation and Netherlands.

## **C12. Engagement**

### **C12.1**

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

Yes, our customers

### **C12.1b**

**(C12.1b) Give details of your climate-related engagement strategy with your customers.**

---

#### **Type of engagement**

Collaboration & innovation

#### **Details of engagement**

Other, please specify



**% of customers by number**

25

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

50

**Please explain the rationale for selecting this group of customers and scope of engagement**

Management of Core Lab participate in several industry trade groups, made up of clients, suppliers and service providers, that engage GHG issues and other environmental issues through mutual discussions, drafting of industry documents and standards, and advisory boards or committees. These include organization such as, but not limited to, American Petroleum Institute (API), Energy Institute (EI) International Organization for Standardization (ISO), UN Global Compact, The Federation of Oils, Seeds and Fats Association Ltd. (FOSFA). Priority is determined by input from our location management located in 55 plus countries to management that currently sit on various boards and committees within these groups.

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

We have had success and recognition by some of our personnel being assigned to committee chairman positions for positions such as Mercury in Glass Reduction Task Force (API & EPA co-project), and participating in standards working groups that have produced standards adopted by industry and regulatory bodies such as the US EPA, USCG, Department of the Interior, ISO, etc. Examples would be Safety and Environmental Management (SEMS and SEMS II) adopted by 30 Certified Federal Regulation 250 Subpart 2 for work safety in Gulf of Mexico and international waters.

## C12.3

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

Trade associations

## C12.3b

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

Yes

## C12.3c

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

---

### **Trade association**

Core Laboratories has several members and committee chairpersons working on a regular basis with the American Petroleum Institute (API), Energy Institute (EI) and American Society for Testing and Methods (ASTM). These organizations draft and adopt many standards that relate to climate related issues and operations of the Oil and Gas industry. These standards are also frequently adopted and co-branded with other organizations such as API or governmental bodies such as USA Code of Federal regulations. Standards produced by these trade organization are seen as best practice or regulation for a number of climate related issues.

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

Consistent

### **Please explain the trade association's position**

From API Climate Change webpage - It is clear that climate change is a serious issue that requires research for solutions and effective policies that allow us to meet our energy needs while protecting the environment: that's why oil and gas companies are working to reduce their greenhouse gas emissions.

API Standards are developed and adopted by the oil and gas E&P companies and regulatory bodies as well. Recent publications include: Estimating petroleum industry value chain (Scope 3) greenhouse gas emissions and overview of methodologies (June 2016); Key Investments in Greenhouse Gas Mitigation Technologies from 2000 Through 2014 by Oil and Gas Firms, Other Industry and the Federal Government (September 2015); Consistent Methodology for Estimating Greenhouse Gas Emissions from Liquefied Natural Gas (LNG) Operations (May 2015); Addressing Uncertainty in Oil and Natural Gas Industry Greenhouse Gas Inventories (February 2015)

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

Core Laboratory management participates as Committee Members with voting rights, Committee Chairs for various standards, Working Group members to draft standards and a number of other positions. Core Laboratories works under the philosophy that participating in the process of standard development best enables us to influence the position of trade organization and ensure that best practices are used and mandated throughout the industry. These standards often become the regulation we must operate under.

## C12.3f

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

Corporate Global Director Safety & Sustainability heads up both the climate change strategy and participation in trade associations. Any standard under development that has Health, Safety or Environmental impact will be assigned to Corporate Safety Director as the voting member. There are also several working group meetings between API Standards Development meetings and before standard development comment and vote. All standards are reviewed and commented on to ensure our climate change strategy is considered.

## C12.4

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

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### Publication

In voluntary sustainability report

### Status

Complete

### Attach the document

 Core\_Lab\_Annual\_Sustainability\_Report\_2019.pdf

### Page/Section reference

Page 34 - 42 Annual Sustainability Report 2019 Publicly available at  
[https://www.corelab.com/cr/cms/docs/Core\\_Lab\\_Annual\\_Sustainability\\_Report\\_2019.pdf](https://www.corelab.com/cr/cms/docs/Core_Lab_Annual_Sustainability_Report_2019.pdf)

### Content elements

Governance  
Strategy  
Emissions figures  
Emission targets

### **Comment**

---

### **Publication**

In voluntary communications

### **Status**

Complete

### **Attach the document**

 20190826\_Core Laboratories\_SBTI\_2019\_Report\_v1.0.pdf

### **Page/Section reference**

Core Laboratory FY 2018 Science Based Targets Setting. Available publicly at <https://www.corelab.com/cr/cms/docs/2018-science-base-targets.pdf>

### **Content elements**

Strategy  
Emissions figures  
Emission targets

### **Comment**

---


**Publication**

In mainstream reports

**Status**

Complete

**Attach the document**

 2019\_annual\_report.pdf

**Page/Section reference**

Pages 12-14

**Content elements**

Governance

Strategy

**Comment**

---

**Publication**


Other, please specify

Value Chain Report from S&P Trucost.

**Status**

Complete

**Attach the document**

 20200825\_Core Laboratories Value Chain Footprint\_Final Report.pdf

### **Page/Section reference**

All Pages

### **Content elements**

Emissions figures  
Emission targets  
Other metrics

### **Comment**

Scope - Every business sector is responsible for GHG emissions. Companies produce emissions directly as a result of their own operations (including the combustion of fossil fuel for utility boilers and vehicle fleets, refrigeration systems etc.) or indirectly via their supply chain (supplied electricity and steam, third-party provided business travel, etc.). Trucost identifies GHG emissions to air in line with the Greenhouse Gas Protocol, an international corporate accounting and reporting framework developed by the World Resources Institute and the World Business Council for Sustainable Development. The Greenhouse Gas Protocol differentiates between direct and indirect emissions using a classification system across three different scopes:

- Scope 1
- Scope 2
- Scope 3

Trucost assessed Core Lab's value chain GHG emissions during FY2019 in alignment with the GHG Protocol. Exhibit 3 below outlines the fifteen upstream and downstream scope 3 categories as described by the GHG Protocol. Trucost estimated the GHG emissions of each category using the Trucost Environmentally Extended Input-Output (EEI-O) model (please see Appendix II for details on the EEI-O model) as well as primary data, where available, for all indirect upstream and downstream impact categories.

Each ATC, mid-level ATC and manufacturing site collected and submitted information regarding its stationary and mobile energy consumption, electricity use and source and refrigerant use - volume of refrigerant replacement was used as an approximation for the amount of gas leaked. This was used to quantify scope 1 and 2 GHG emissions. Scope 3 was calculated using either primary data such as distance travelled for business or employee commuting, waste arisings, and fuel or energy use in leased assets, or else spend in these categories alongside the Trucost EEI-O.

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**Publication**

Other, please specify  
Science Based Targets Setting from S&P Trucost

**Status**

Complete

**Attach the document**

 20190826\_Core Laboratories\_SBTi\_2019\_Report\_v1.0.pdf

**Page/Section reference**

All Pages

**Content elements**

Emission targets

**Comment**

Introduction - Core Laboratories commissioned Trucost help calculate appropriate greenhouse gas (GHG) emissions reduction targets in line with the latest Science Based Target Initiative (SBTi) methodologies.

As of February 2019 the SBTi updated its recommendations regarding science-based target setting to update the previous recommendations to achieve 2°C limits in global climate change. It now encourages companies to set GHG emissions reduction targets consistent with the most ambitious aim of the Paris Agreement, to limit average global warming to 1.5°C. SBTi communicated<sup>1</sup> the new targets submitted for validation will only be accepted if they are consistent with limiting warming to well-below 2°C (WB2C) or 1.5°C (1.5C) above pre-industrial levels. These are consistent with the context of strengthening global response to the threat of climate change. Based on this communication, targets consistent with limiting warming to 2°C will no longer be approved by the SBTi. Core Laboratories has previously set an SBT for its six ATCs, and these are updated within this report to take into consideration latest recommendations and the expansion of scope to include 12 mid-level ATCs and two manufacturing sites. It should be noted that Singapore is included as a 13th ATC within footprint analysis, but this is excluded in the SBTs as the site has been sold and is no longer a part of the Core Laboratories operations.



Core Laboratories has been tracking its GHG emissions for several years, expanding from six sites in 2015 to 21 sites in 2019 (for FY2018 data). Based on the emissions profile of Core Laboratories wherein Scope 3 emissions account for majority (over 40%) of the company-wide emissions Trucost recommended the inclusion of Scope 3 emissions in the setting of a science-based target, in line with SBTi recommended practice. It should be noted that while the recommendations within the report relate to SBTi guidance, it is unlikely that the scope of the target (covering only 20 sites and not the full range of operating practices) would be accepted for a formal endorsement from SBTi at this stage.

## C15. Signoff

### C-FI

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

### C15.1

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

	Job title	Corresponding job category
Row 1	Global Director Safety & Sustainability	Environment/Sustainability manager

## Submit your response

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

English

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

	I am submitting to	Public or Non-Public Submission
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I am submitting my response	Investors	Public
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**Please confirm below**

I have read and accept the applicable Terms